

# TEST REPORT

## CERTIFICATE OF CONFORMITY

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

**Report No.:** RFBCKS-WTW-P23110556A

**FCC ID:** 2ABLKGS5229XX

**Product:** GigaSpire BLAST u6t

**Brand:** Calix

**Model No.:** u6t GS5229E

**Series Model:** u6txg GS5229XG

**Received Date:** 2023/11/18

**Test Date:** 2023/11/18 ~ 2024/3/23

**Issued Date:** 2024/4/3

**Applicant:** Calix Inc.

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

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**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:** 2024/4/3  
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
RFBCKS-WTW-P23110556A	Original release.	2024/4/3

## 1 Certificate

**Product:** GigaSpire BLAST u6t

**Brand:** Calix

**Test Model:** u6t GS5229E

**Series Model:** u6txg GS5229XG

**Sample Status:** Engineering sample

**Applicant:** Calix Inc.

**Test Date:** 2023/11/18 ~ 2024/3/23

**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	-	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1) 15.407(a)(2) 15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1) 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 -8.66 dB at 0.68906 MHz and 4.62500 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.7 dB at 250.09 MHz
15.407(b) (1/10) 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 5460.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

### Notes:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The "Dynamic Frequency Selection measurement" was recorded in DFS test report.

### 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) (±)
26 dB Bandwidth	-	1050.00 Hz
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	1050.00 Hz
Occupied Bandwidth	-	1050.00 Hz
Frequency Stability	-	0.16 ppm
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	5.4 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	GigaSpire BLAST u6t
Brand	Calix
Test Model	u6t GS5229E
Series Model	u6txg GS5229XG
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc from power adapter or UPS
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 600 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	5.18 GHz ~ 5.24 GHz 5.26 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT80+80), 802.11ax (HE80+80): 2
Output Power	<b>CDD Mode:</b> 5.18 GHz ~ 5.24 GHz : 131.786 mW (21.20 dBm) 5.26 GHz ~ 5.32 GHz : 238.502 mW (23.77 dBm) 5.5 GHz ~ 5.72 GHz : 236.863 mW (23.74 dBm) <b>Beamforming Mode:</b> 5.18 GHz ~ 5.24 GHz : 131.786 mW (21.20 dBm) 5.26 GHz ~ 5.32 GHz : 238.502 mW (23.77 dBm) 5.5 GHz ~ 5.72 GHz : 189.874 mW (22.78 dBm)

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RFBCKS-WTW-P23110556-1 as the following:

- ◆ Add DFS band <5.26 ~ 5.32 GHz, 5.50 ~ 5.72 GHz> by software.
- ◆ Add 2<sup>nd</sup> source combination.

Condition	Combination 1 (Original)	Combination 2 (2 <sup>nd</sup> source)
Status	With Absorber	Without Absorber
Heatsink (In the BOSA area)	Without cut	With cut
Shielding cover	flat	concave
BOSA	-	Brand: Potron
PTC	-	Brand: semitel
10G transformer	-	Brand: Mingtek

2. According to above conditions, for DFS band all of test items need to be performed and Combination 2 also verify for 5 GHz UNII-1/3 worse channel for AC Power Conducted Emissions and Unwanted Emissions below 1 GHz test items, and all data was verified to meet the requirements.



3. The EUT has below model names, more detailed information as below table.

Model	u6t GS5229E	u6txg GS5229XG
WiFi bands	2.4 / 5 GHz	2.4 / 5 GHz
WiFi version	WiFi 6	WiFi 6
Configuration	Dual band 2x2 (2.4 GHz) + 4x4 (5 GHz)	Dual band 2x2 (2.4 GHz) + 4x4 (5 GHz)
WAN ports	10GE	XGS PON
LAN/WAN	10GE	10GE
LAN ports	4 x GE	4 x GE
USB	1 x 2.0	1 x 2.0
LED	Single pin hole tri-color LED	Single pin hole tri-color LED
POTS	2	2
Other buttons	Reset and WPS	Reset and WPS
UPS Connector	8 pin UPS connector	8 pin UPS connector
Supporting Ambient Temperature	0 to 40°C	0 to 40°C
Desktop and Wall Mount	Required	Required

4. The EUT has two heatsink types as below table.

Type	Description
1 <sup>st</sup>	HEATSPREADER, MAIN, LCS7
2 <sup>nd</sup>	HEATSPREADER, MAIN, TYPE2, LCS7

5. The EUT has two transformer sources as below table.

Item	1 <sup>st</sup> Transformer	2 <sup>nd</sup> Transformer
PN	76.1S220.005	76.1S602.007
Vendor	UDE	HDT

6. The EUT uses following accessories.

<b>AC Adapter 1</b>		
Brand	Model	Specification
AMIGO	AMS157-1203000FU	AC Input : 100-240 V~, 50/60 Hz, 1 A DC Output : 12 V = 3.0 A Specification : 1.45 m
<b>AC Adapter 2</b>		
Brand	Model	Specification
MOSO	MS-V3000R120-036L0-US	AC Input : 100-240 V~, 50/60 Hz, 1.0 A DC Output : 12 V = 3.0 A Specification : 1.535 m

7. There are WLAN (2.4 GHz) and WLAN (5 GHz) technology used for the EUT.

8. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4 GHz)	WLAN (5 GHz)

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

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

### 3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	RF Chain No.	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
2G1	Chain 0	3.69	2.4~2.4835	Dipole	ipex(MHF)
2G2	Chain 1	3.63	2.4~2.4835	Dipole	ipex(MHF)
5G1	Chain 0	3.96	5.15~5.25	Dipole	ipex(MHF)
		3.96	5.25~5.35		
		3.90	5.47~5.725		
		3.06	5.725~5.85		
5G2	Chain 1	4.63	5.15~5.25	Dipole	ipex(MHF)
		4.28	5.25~5.35		
		5.02	5.47~5.725		
		4.27	5.725~5.85		
5G3	Chain 2	3.06	5.15~5.25	Dipole	ipex(MHF)
		2.25	5.25~5.35		
		1.91	5.47~5.725		
		3.57	5.725~5.85		
5G4	Chain 3	3.18	5.15~5.25	Dipole	ipex(MHF)
		3.45	5.25~5.35		
		4.60	5.47~5.725		
		3.72	5.725~5.85		

2. The directional gain table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Connector Type
2.4~2.4835	5.84	Dipole	ipex(MHF)
5.15 ~ 5.25	6.11	Dipole	ipex(MHF)
5.25 ~ 5.35	5.43	Dipole	ipex(MHF)
5.47 ~ 5.725	6.89	Dipole	ipex(MHF)
5.725 ~ 5.85	4.94	Dipole	ipex(MHF)

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

4. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ac (VHT80+80)	2TX+2TX	2RX+2RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE80+80)	2TX+2TX	2RX+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.

### 3.3 Channel List

#### FOR 5180 ~ 5240 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20), 802.11be (EHT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40), 802.11be (EHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80), 802.11be (EHT80):

Channel	Frequency
42	5210 MHz

#### 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		

**FOR 5745 ~ 5825 MHz:**

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

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

Channel	Frequency
155	5775 MHz

**For simultaneous transmission:**

2 sets are provided for 802.11ac (VHT80+80), 802.11ax (HE80+80):

Channel	Frequency	Channel	Frequency
42+58	5210MHz + 5290MHz	106+122	5530 MHz + 5610 MHz

### 3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	<ol style="list-style-type: none"> <li>1. The Power Supply has the following models: Adapter 1 (AMS157-1203000FU) / Adapter 2 (MS-V3000R120-036L0-US) / UPS. Pre-scan these models of Power Supply and find the worst case as a representative test condition.</li> <li>2. The device has the following models: u6t GS5229E / u6txg GS5229XG. Pre-scan these models of device and find the worst case as a representative test condition.</li> <li>3. The device has the Heatsink following types: Type 1 / Type 2. Pre-scan these models of device and find the worst case as a representative test condition.</li> <li>4. The device has the LAN Transformer following sources: Main / Second. Pre-scan these sources of device and find the worst case as a representative test condition.</li> <li>5. 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> <li>6. Pre-Scan 2<sup>nd</sup> Source (Please refer to Section 3.1 Combination 2)</li> </ol>
Worst Case:	<ol style="list-style-type: none"> <li>1. Power Supply Worst Condition: <ul style="list-style-type: none"> <li>➤ Unwanted Emission Below 1GHz: Adapter 1 (AMS157-1203000FU)</li> <li>➤ AC Power Line Conduction Emission: UPS</li> </ul> </li> <li>2. The device Worst Condition: u6t GS5229E</li> <li>3. The device worst heatsink condition: Type 2</li> <li>4. LAN Transformer Worst Condition: Main source</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
	802.11ax (HE80+80)	CDD	42+58, 106+122	BPSK	MCS0
RF Output Power	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11n (HT20)	CDD & Beamforming	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11n (HT40)	CDD & Beamforming	54, 62, 102, 110, 134, 142	BPSK	MCS0
	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
	802.11ac (VHT80+80)	CDD & Beamforming	42+58, 106+122	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
	802.11ax (HE80+80)	CDD & Beamforming	42+58, 106+122	BPSK	MCS0

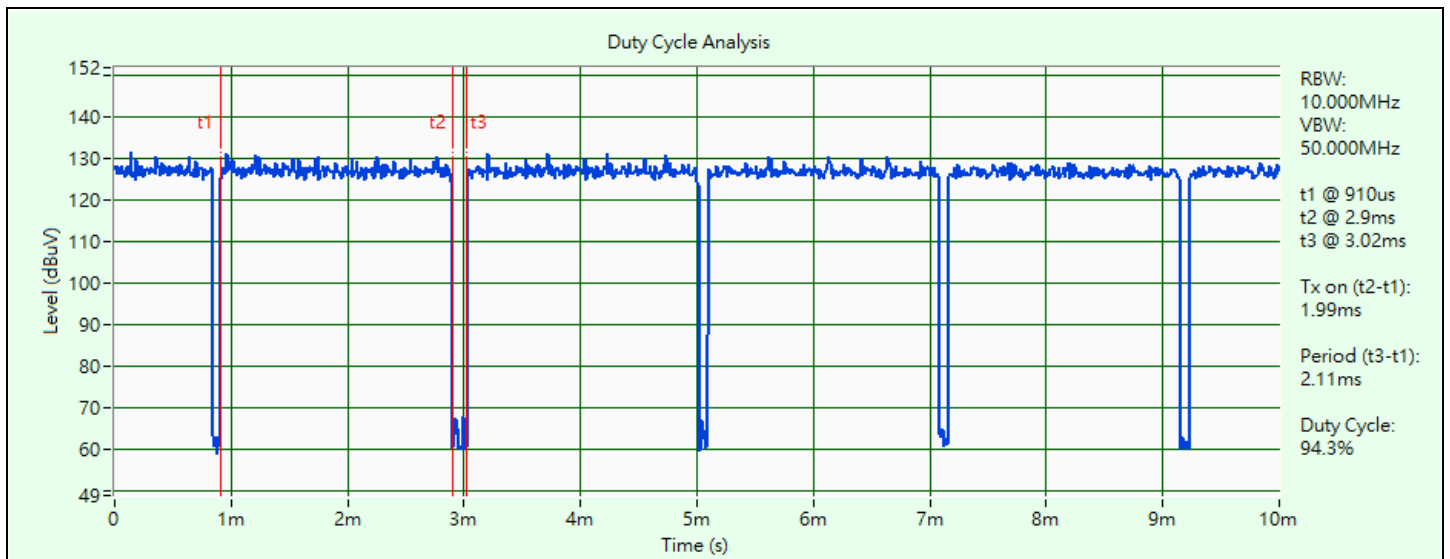
Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
6 dB Bandwidth	802.11a	CDD	144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	144	BPSK	MCS0
	802.11ax (HE40)	CDD	142	BPSK	MCS0
	802.11ax (HE80)	CDD	138	BPSK	MCS0
Power Spectral Density / Occupied Bandwidth	802.11a	CDD	52, 60, 64, 100, 116, 140, 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
	802.11ax (HE80+80)	CDD	42+58, 106+122	BPSK	MCS0
Frequency Stability	802.11a	-	52	unmodulated	-
AC Power Conducted Emissions	802.11ax (HE20)	CDD	52	BPSK	MCS0
	802.11ax (HE40)	CDD	159	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE20)	CDD	52	BPSK	MCS0
	802.11ax (HE40)	CDD	159	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
	802.11ax (HE80+80)	CDD	42+58, 106+122	BPSK	MCS0

**Note:**

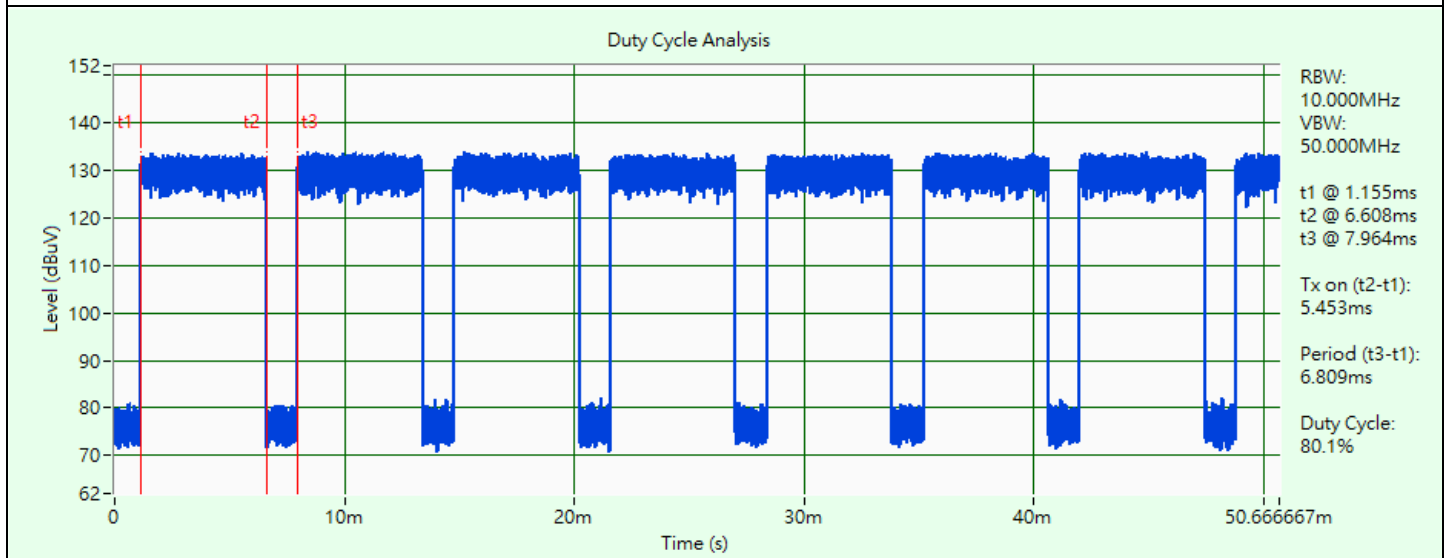
1. Partial RU (resource unit) mechanism is not supported.
2. Combination 2 had pretest in UNII-2a/2c, and also verify for 5G UNII-1/3 worse channel for Unwanted Emissions below 1 GHz and AC Power Conducted Emissions. The worse still refer to the original after evaluation.

### 3.5 Duty Cycle of Test Signal

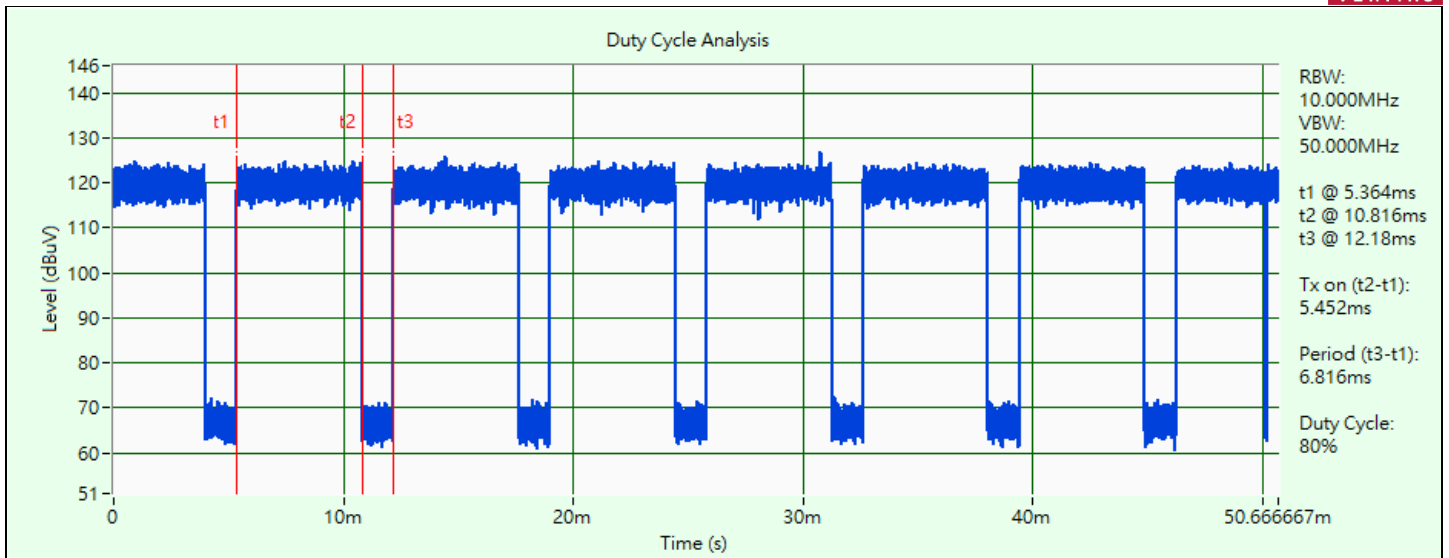
- 802.11a:** Duty cycle = 1.99 ms / 2.11 ms x 100% = 94.3%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.25 \text{ dB}$
- 802.11n (HT20):** Duty cycle = 5.453 ms / 6.809 ms x 100% = 80.1%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.96 \text{ dB}$
- 802.11n (HT40):** Duty cycle = 5.452 ms / 6.816 ms x 100% = 80.0%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ac (VHT20):** Duty cycle = 5.453 ms / 6.809 ms x 100% = 80.1%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.96 \text{ dB}$
- 802.11ac (VHT40):** Duty cycle = 5.452 ms / 6.816 ms x 100% = 80.0%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ac (VHT80):** Duty cycle = 5.453 ms / 6.825 ms x 100% = 79.9%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ac (VHT80+80):** Duty cycle = 5.453 ms / 6.825 ms x 100% = 79.9%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ax (HE20):** Duty cycle = 5.453 ms / 6.809 ms x 100% = 80.1%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.96 \text{ dB}$
- 802.11ax (HE40):** Duty cycle = 5.452 ms / 6.816 ms x 100% = 80.0%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ax (HE80):** Duty cycle = 5.453 ms / 6.825 ms x 100% = 79.9%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$
- 802.11ax (HE80+80):** Duty cycle = 5.453 ms / 6.825 ms x 100% = 79.9%, duty factor =  $10 * \log (1/\text{Duty cycle}) = 0.97 \text{ dB}$



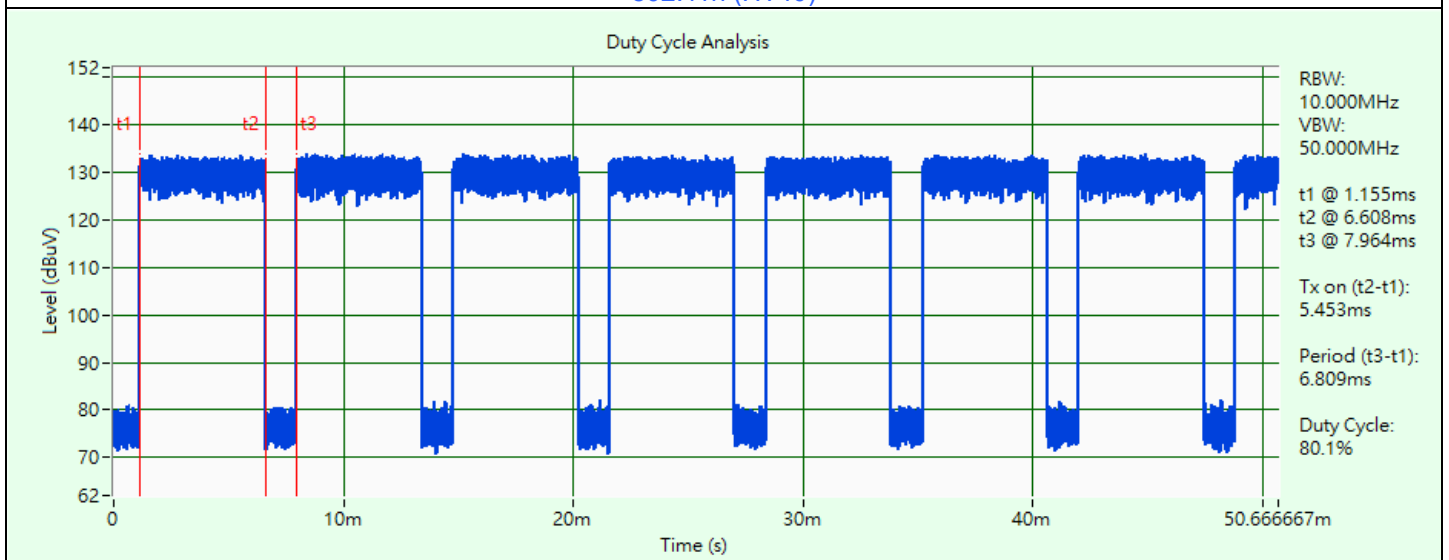
802.11a



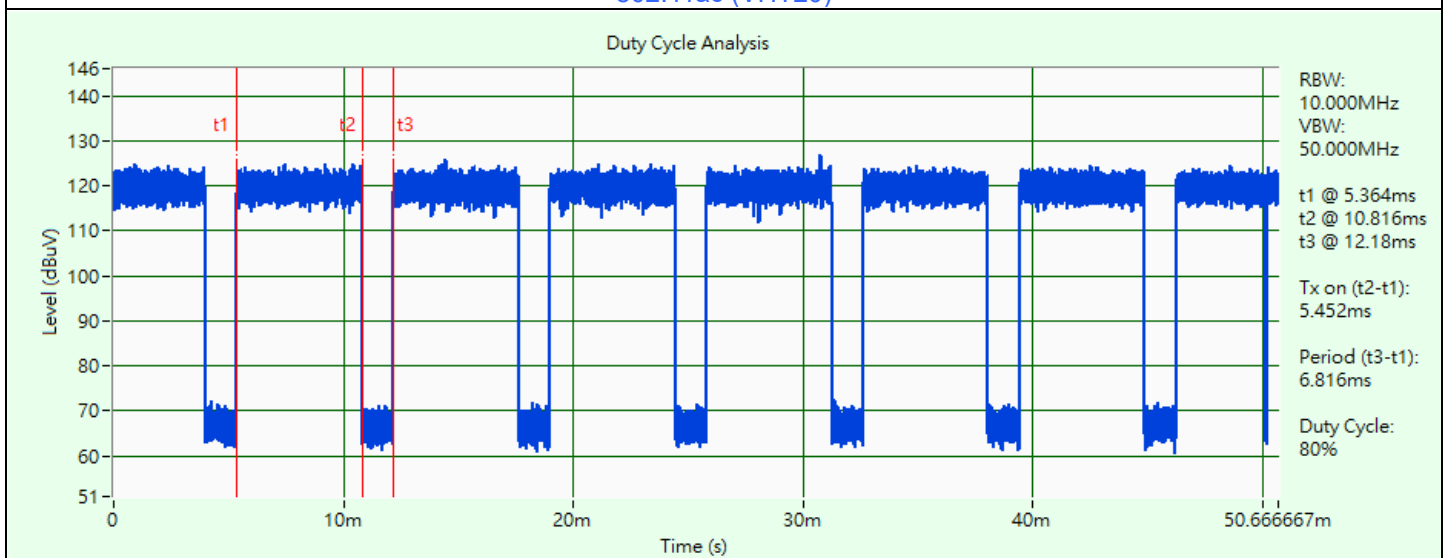
802.11n (HT20)



802.11n (HT40)



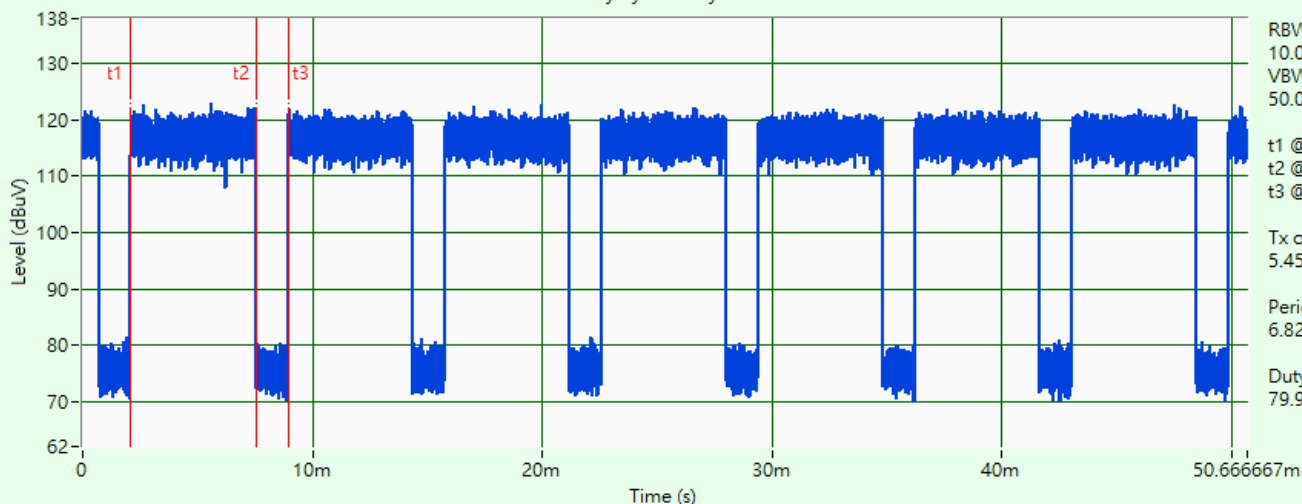
802.11ac (VHT20)



802.11ac (VHT40)

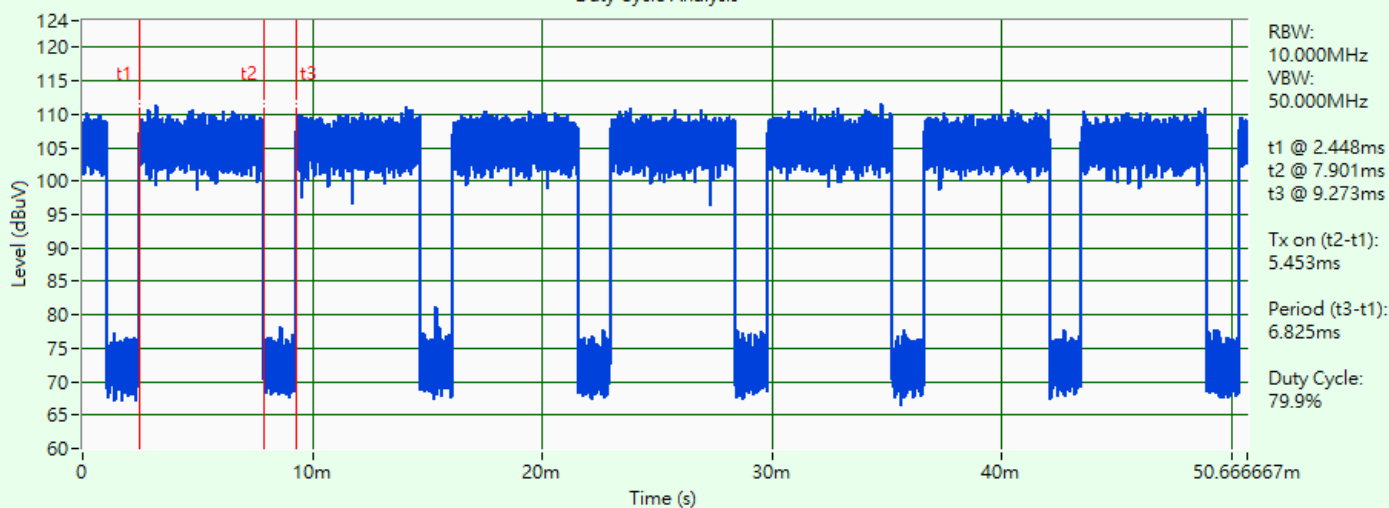


Duty Cycle Analysis



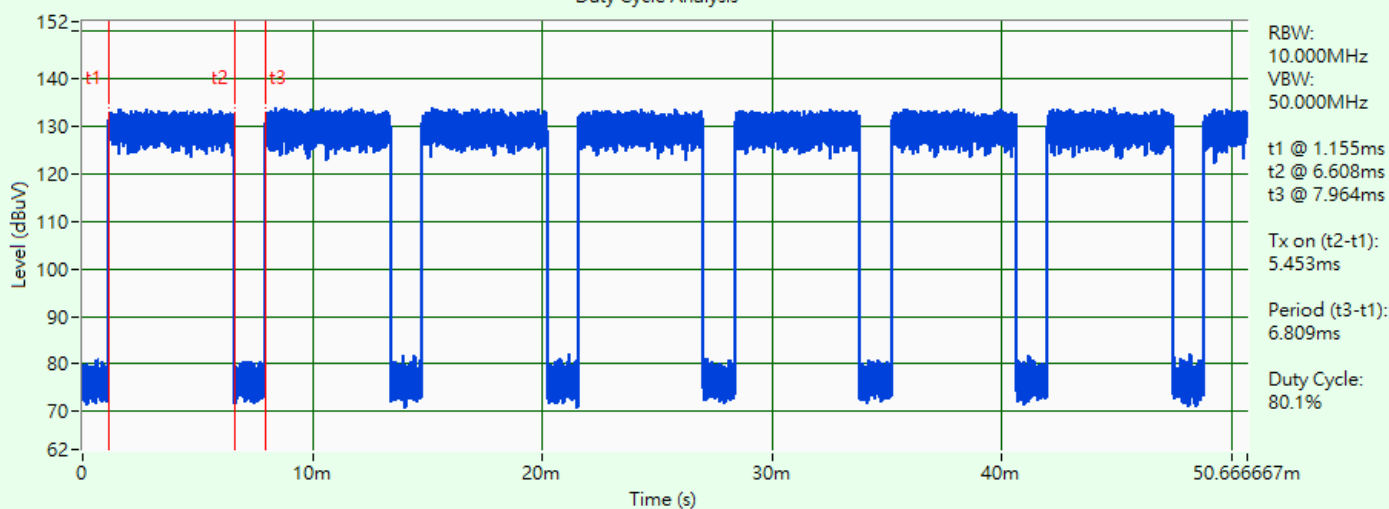
802.11ac (VHT80)

Duty Cycle Analysis



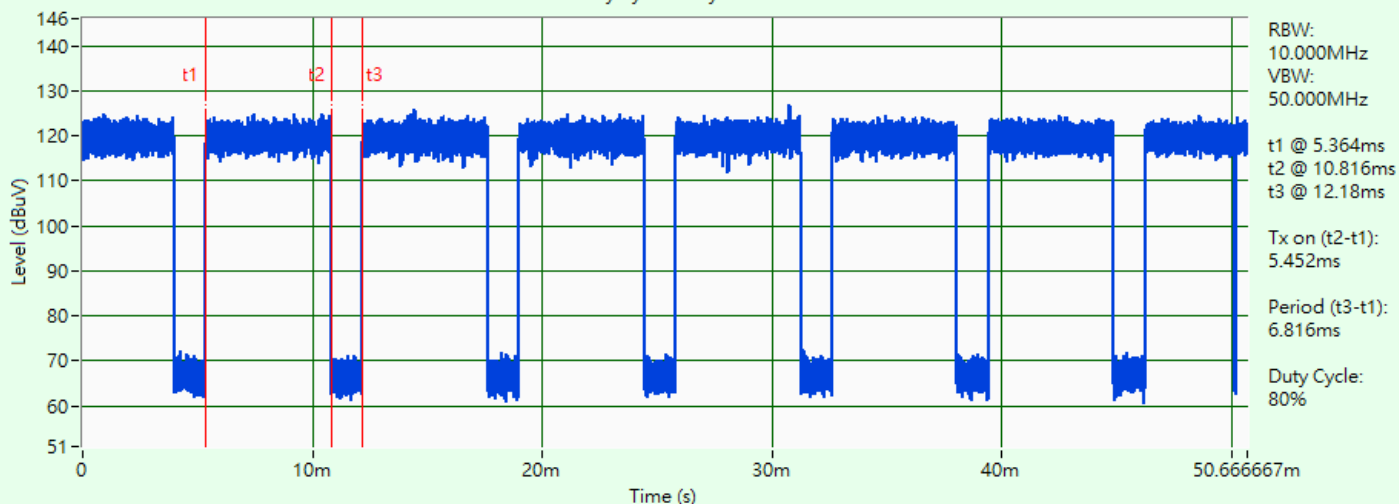
802.11ac (VHT80+80)

Duty Cycle Analysis



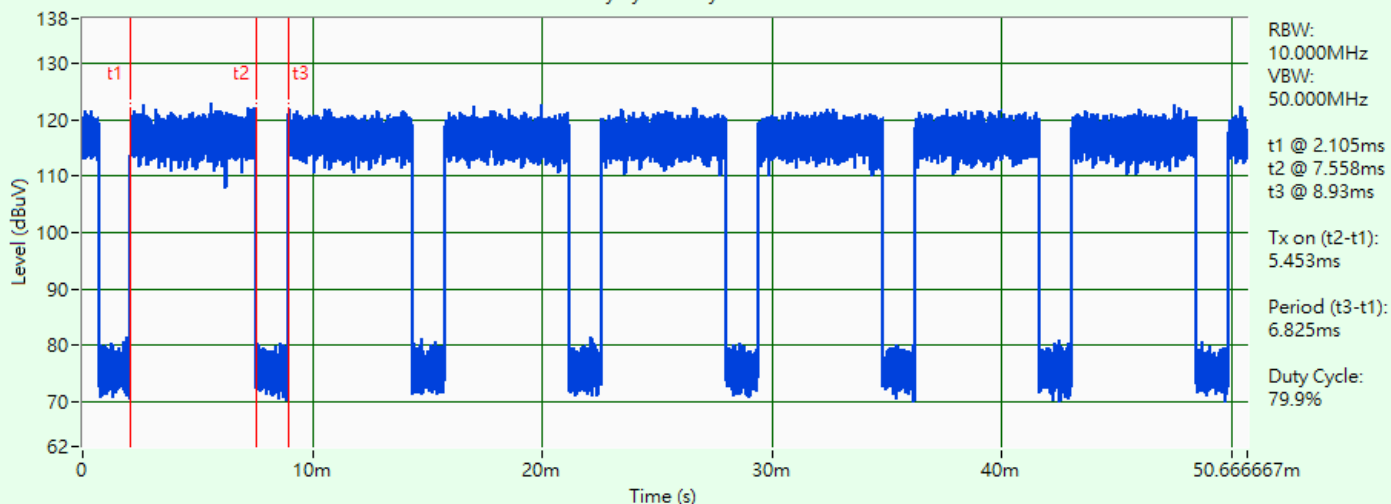
802.11ax (HE20)

Duty Cycle Analysis



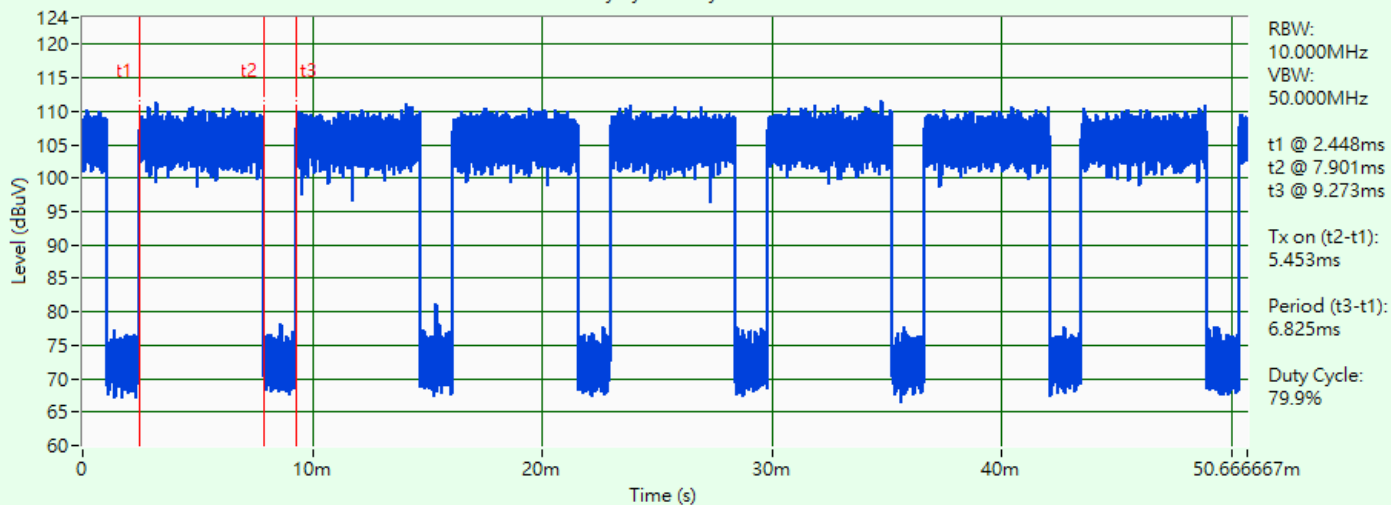
802.11ax (HE40)

Duty Cycle Analysis



802.11ax (HE80)

Duty Cycle Analysis



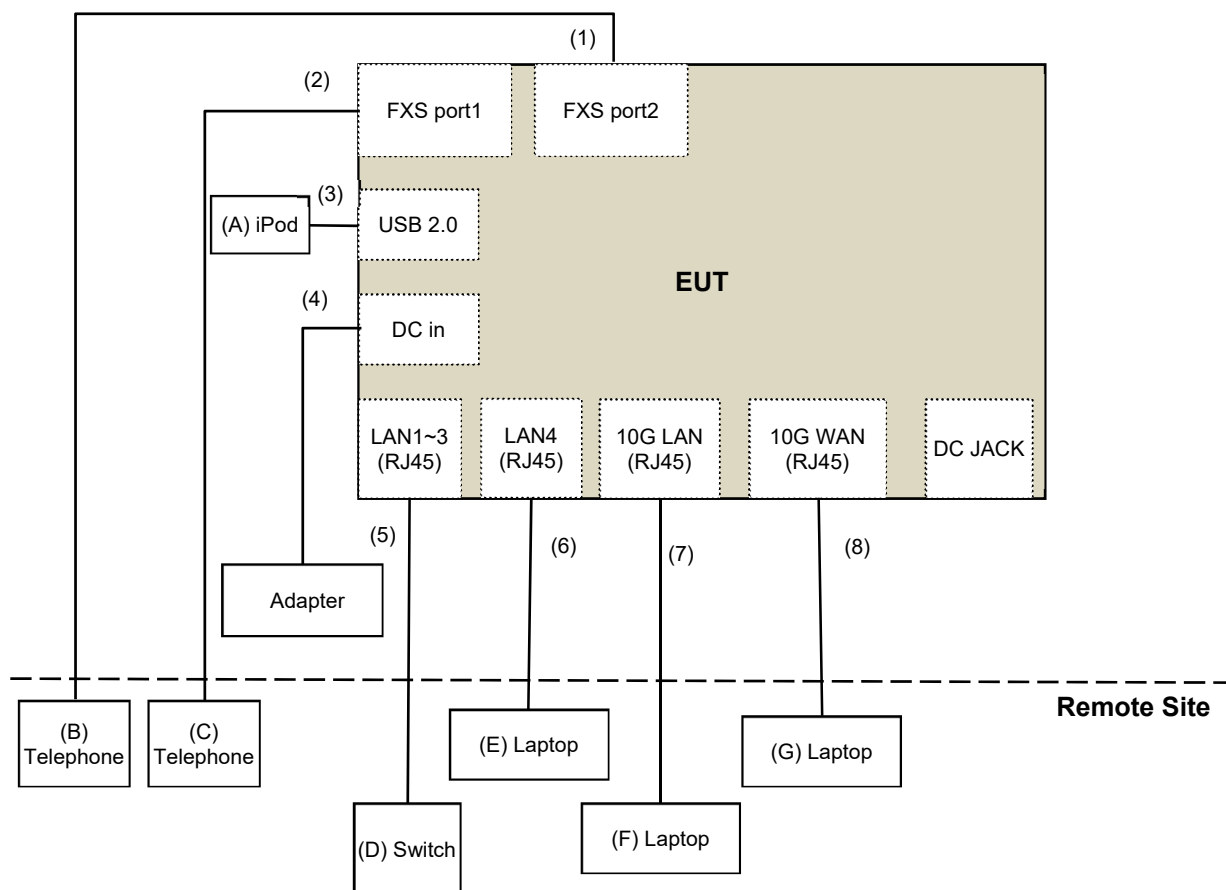
802.11ax (HE80+80)

### 3.6 Test Program Used and Operation Descriptions

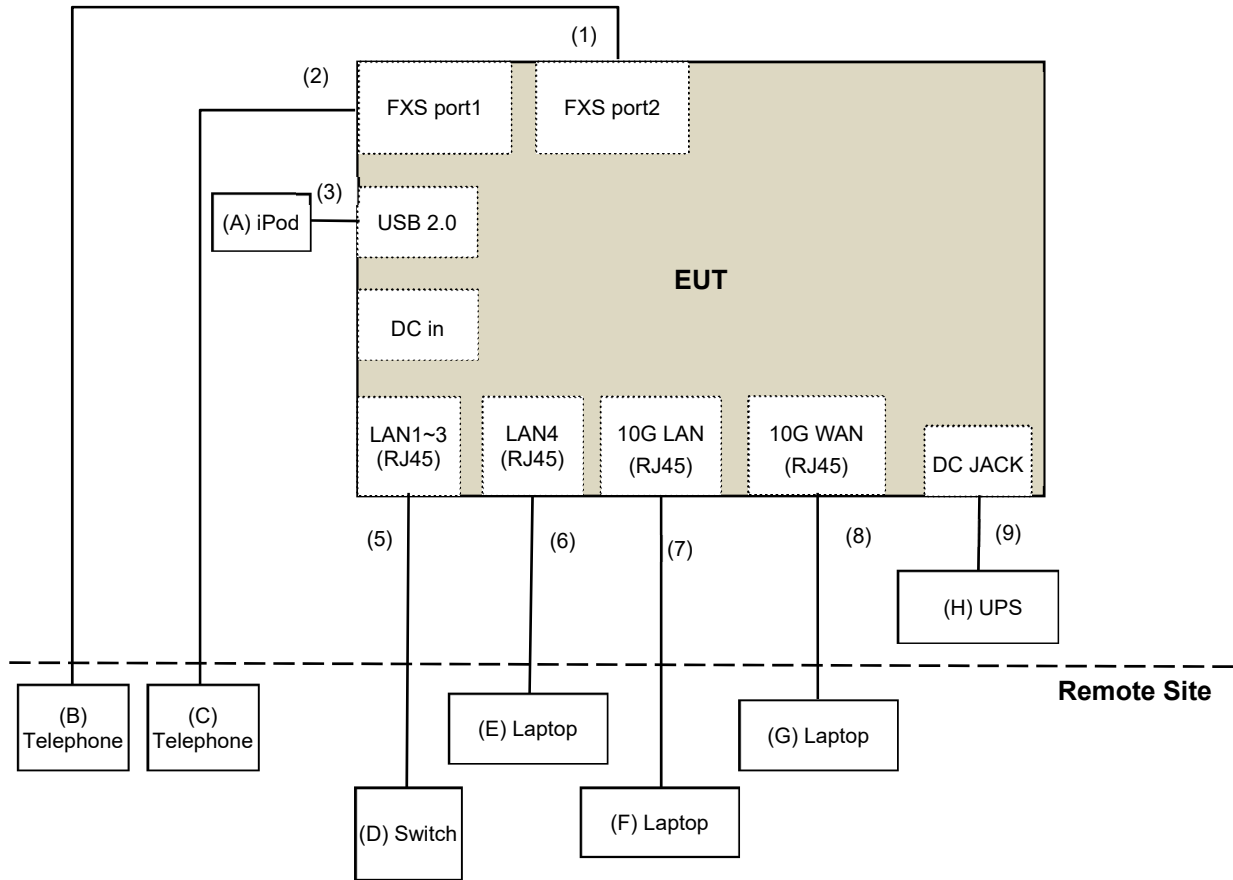
Controlling software (qdart\_conn.win.1.0\_installer\_00097.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

### 3.7 Connection Diagram of EUT and Peripheral Devices

For Unwanted Emission test:



For AC Power Conducted Emission test:



### 3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	iPod	Apple	A1373	CC4DN25WDFDM	N/A	Provided by Lab
B	Telephone	WONDER	WD-303	7C17KA 04011	N/A	Provided by Lab
C	Telephone	Romeo	TE-812	97280903	N/A	Provided by Lab
D	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab
E	Laptop	DELL	E5430	4YV4VY1	DoC	Provided by Lab
F	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
G	Laptop	DELL	E6420	H62T3R1	DoC	Provided by Lab
H	UPS	CyberPower	DTC36U12V3-G	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-11 Cable	1	10	No	0	Provided by Lab
2	RJ-11 Cable	1	10	No	0	Provided by Lab
3	USB Cable	1	0.1	Yes	0	Provided by Lab
4	DC Cable	1	1.45	No	0	Supplied by applicant
5	RJ-45 Cable	3	10	No	0	Provided by Lab
6	RJ-45 Cable	1	10	No	0	Provided by Lab
7	RJ-45 Cable	1	10	No	0	Provided by Lab
8	RJ-45 Cable	1	10	No	0	Provided by Lab
9	DC Cable	1	2.5	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
MXA Signal Analyzer Keysight	N9020B	MY60112409	2024/2/20	2025/2/19
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/3/3 ~ 2024/3/4

### 4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112409	2024/2/20	2025/2/19
Pulse Power Sensor Anritsu	MA2411B	1726434	2023/6/19	2024/6/18
RF Power Meter Anritsu	ML2495A	1529002	2023/6/17	2024/6/16
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/3/3 ~ 2024/3/4

### 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
MXA Signal Analyzer Keysight	N9020B	MY60112409	2024/2/20	2025/2/19
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2023/12/20	2024/12/19
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: 2024/3/3 ~ 2024/3/4

#### 4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2023/10/20	2024/10/19
EMI Test Receiver R&S	ESCS 30	847124/029	2023/10/18	2024/10/17
Fixed Attenuator STI	STI02-2200-10	005	2024/2/19	2025/2/18
LISN R&S	ESH3-Z5	835239/001	2023/4/6	2024/4/5
		848773/004	2023/10/13	2024/10/12
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2024/2/19	2025/2/18
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: 2024/3/4 ~ 2024/3/22

#### 4.8 Unwanted Emissions below 1 GHz

##### For 802.11ax (HE20) CH52 test:

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-361	2023/10/13	2024/10/12
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2024/2/17	2025/2/16
Loop Antenna Electro-Metrics	EM-6879	264	2024/2/23	2025/2/22
MXE EMI Receiver Agilent	N9038A	MY50010156	2023/6/13	2024/6/12
Preamplifier EMCI	EMC330N	980852	2024/2/17	2025/2/16
	EMC001340	980142	2024/2/19	2025/2/18
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2024/2/19	2025/2/18
		LOOPCAB-002	2024/2/19	2025/2/18
RF Coaxial Cable PEWC	8D	001	2024/2/16	2025/2/15
		966-3-2	2024/2/16	2025/2/15
		966-3-3	2024/2/16	2025/2/15
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

##### Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2024/3/4

##### For 802.11ax (HE40) CH159 test:

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-406	2023/10/13	2024/10/12
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2024/2/17	2025/2/16
Loop Antenna Electro-Metrics	EM-6879	264	2024/2/23	2025/2/22
MXA Signal Analyzer Keysight	N9020B	MY60112408	2024/3/7	2025/3/6
MXE EMI Receiver Keysight	N9038A	MY59050100	2023/6/13	2024/6/12
Preamplifier EMCI	EMC330N	980701	2024/2/17	2025/2/16
	EMC001340	980142	2024/2/19	2025/2/18
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2024/2/19	2025/2/18
		LOOPCAB-002	2024/2/19	2025/2/18
RF Coaxial Cable mTJ	100100-CFD400LW-200	CFD400-200	2024/2/17	2025/2/16
	100100-CFD400LW-400	CFD400-400	2024/2/17	2025/2/16
	100100-CFD400LW-800	CFD400-800	2024/2/17	2025/2/16
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: 2024/3/23



#### 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	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-406	2023/11/12	2024/11/11
	BBHA 9170	9170-739	2023/11/12	2024/11/11
MXE EMI Receiver Agilent	N9038A	MY50010156	2023/6/13	2024/6/12
Preamplifier EMCI	EMC12630SE	980384	2023/8/9	2024/8/8
	EMC184045SE	980387	2023/8/9	2024/8/8
PXA Signal Analyzer Keysight	N9030B	MY57142938	2023/4/6	2024/4/5
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2022/12/28 2024/1/29	2023/12/27 2025/1/28
	EMC102-KM-KM-4000	200214	2023/2/20 2024/1/29	2024/2/19 2025/1/28
	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
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2023/11/18 ~ 2024/3/4

## 5 Limits of Test Items

### 5.1 26 dB Bandwidth

The results are for reference only.

### 5.2 RF Output Power

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

Operation Band	Limit
U-NII-2A	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	EUT Category	Limit
U-NII-1	Outdoor Access Point	17 dBm/MHz
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/MHz

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

### 5.4 6 dB Bandwidth

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

## 5.5 Occupied Bandwidth

The results are for reference only.

## 5.6 Frequency Stability

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

## 5.7 AC Power Conducted Emissions

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

Notes:

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

## 5.8 Unwanted Emissions below 1 GHz

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

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

Notes:

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

## 5.9 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v02r01	Field Strength at 3 m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)

For transmitters operating in the 5.15-5.25 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (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: 68.2 (dBμV/m) <sup>*1</sup>
	PK: 10 (dBm/MHz) <sup>*2</sup>	PK: 105.2 (dBμV/m) <sup>*2</sup>
	PK: 15.6 (dBm/MHz) <sup>*3</sup>	PK: 110.8 (dBμV/m) <sup>*3</sup>
	PK: 27 (dBm/MHz) <sup>*4</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.

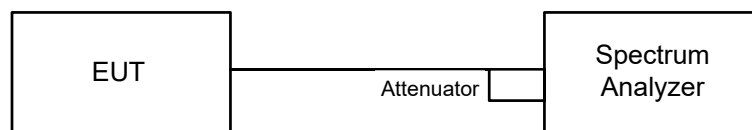
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

## 6 Test Arrangements

### 6.1 26 dB Bandwidth

#### 6.1.1 Test Setup

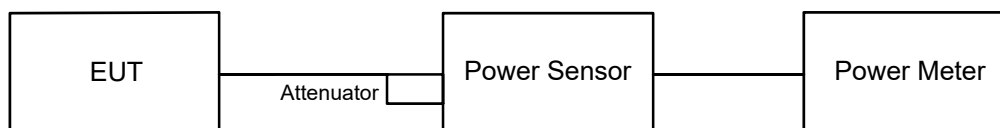


#### 6.1.2 Test Procedure

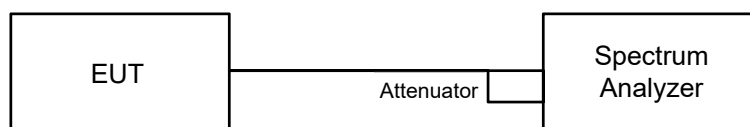
- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement 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:

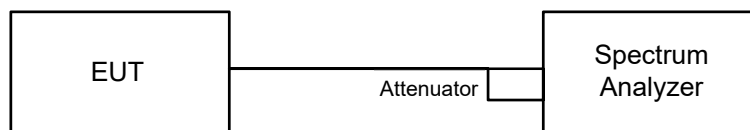
##### Method SA-2

- 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.
- Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- Record the max value and add  $10 \log (1/\text{duty cycle})$ .

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-2

- 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.
- Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- Record the max value and add 10 log (1/duty cycle).

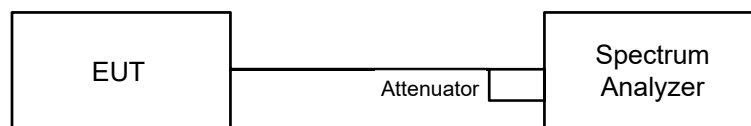
#### For specified measurement bandwidth 500 kHz:

##### Method SA-2

- 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.
- Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- Record the max value and add 10 log (1/duty cycle).

## 6.4 6 dB Bandwidth

### 6.4.1 Test Setup

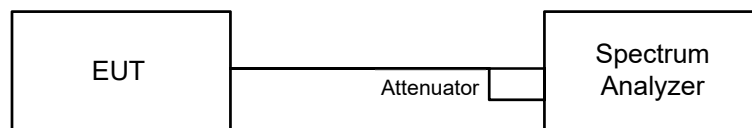


### 6.4.2 Test Procedure

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

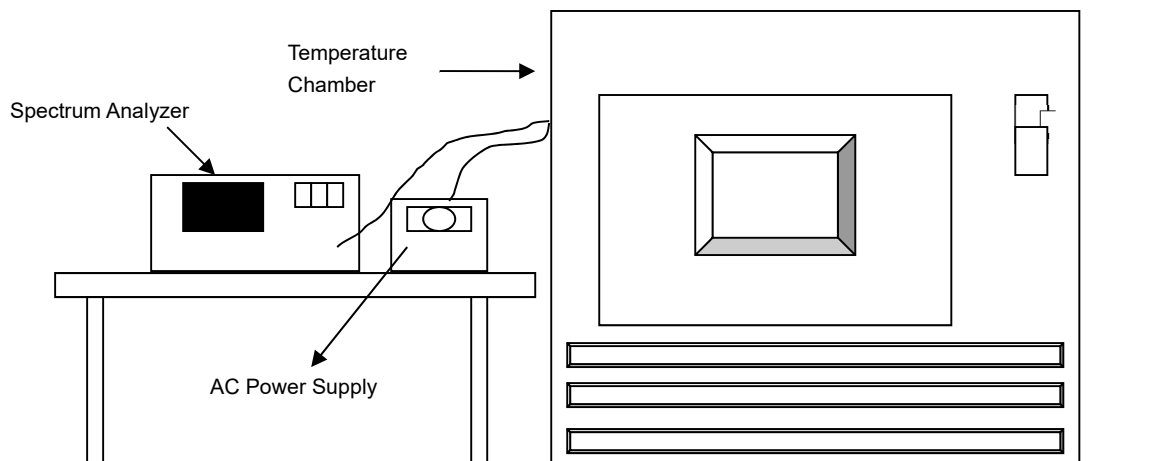


### 6.5.2 Test Procedure

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

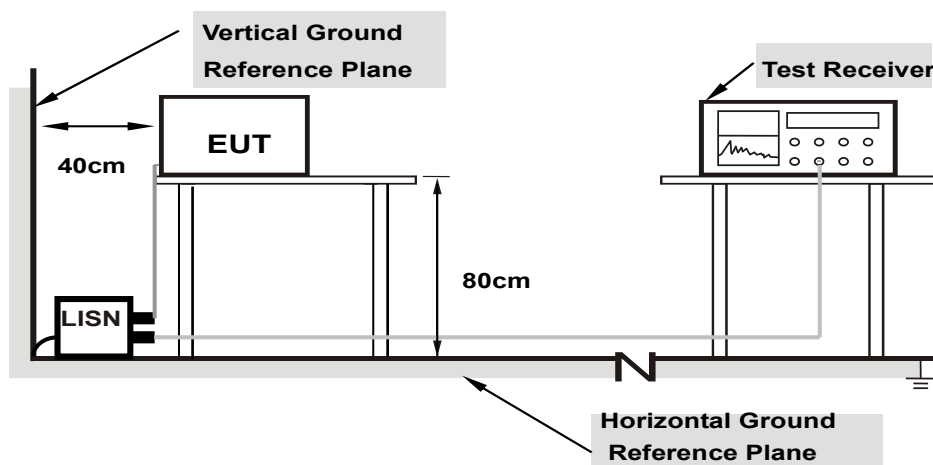


### 6.6.2 Test Procedure

- 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.

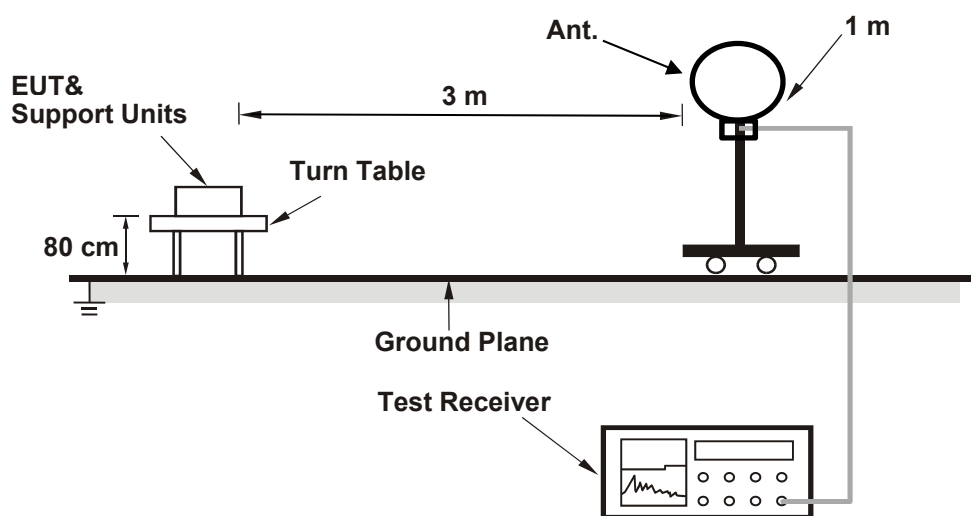
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.



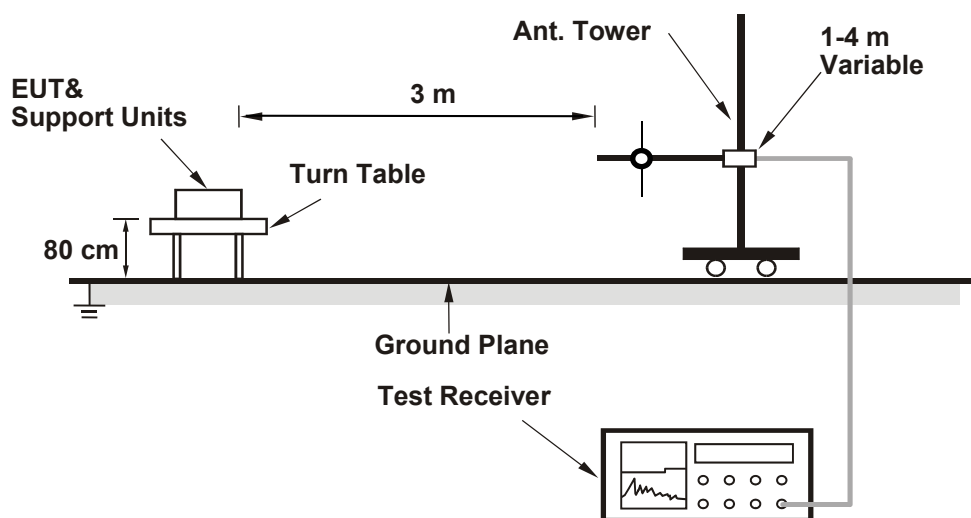
## 6.8 Unwanted Emissions below 1 GHz

### 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

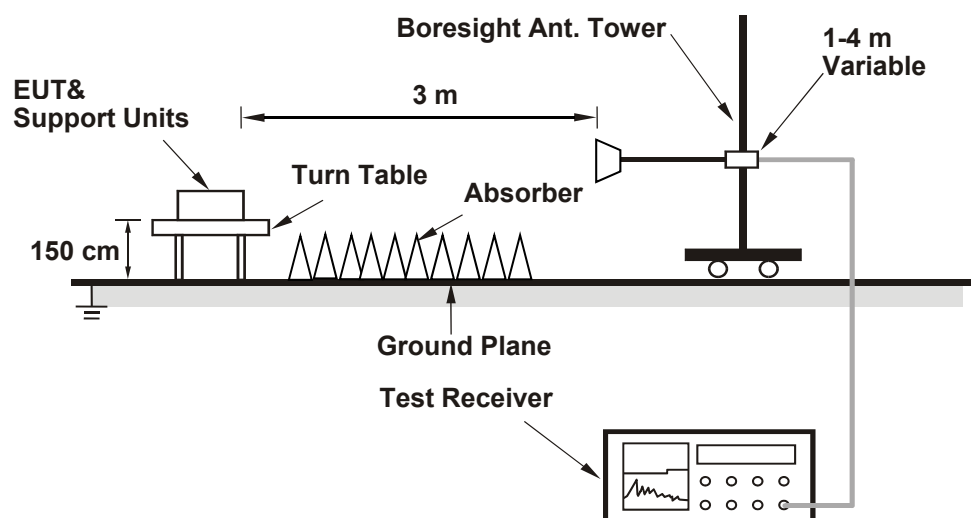
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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 detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

#### Notes:

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

## 6.9 Unwanted Emissions above 1 GHz

### 6.9.1 Test Setup



For 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:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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#### 802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	19.00	18.93	18.49	18.86
60	5300	18.49	18.64	19.05	18.83
64	5320	19.24	18.72	18.58	18.64
100	5500	18.86	19.19	18.57	18.97
116	5580	19.37	19.04	19.22	18.98
140	5700	19.19	18.78	18.91	18.93
144 (U-NII-2C)	5720	14.81	14.63	14.64	14.37
144 (U-NII-3)	5720	4.24	4.16	4.21	4.08

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	18.49	23.66 < 24
60	5300	18.49	23.66 < 24
64	5320	18.58	23.69 < 24
100	5500	18.57	23.68 < 24
116	5580	18.98	23.78 < 24
140	5700	18.78	23.73 < 24
144 (U-NII-2C)	5720	14.37	22.57 < 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	Chain 2	Chain 3
52	5260	20.72	20.94	21.13	21.18
60	5300	20.49	21.00	20.86	21.32
64	5320	20.64	21.19	21.08	20.78
100	5500	21.15	21.44	20.89	21.07
116	5580	20.98	21.04	20.80	20.58
140	5700	20.68	21.01	20.83	21.29
144 (U-NII-2C)	5720	15.56	15.66	15.63	15.74
144 (U-NII-3)	5720	5.39	5.42	5.58	5.49

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.72	24.16 > 24
60	5300	20.49	24.11 > 24
64	5320	20.64	24.14 > 24
100	5500	20.89	24.19 > 24
116	5580	20.58	24.13 > 24
140	5700	20.68	24.15 > 24
144 (U-NII-2C)	5720	15.56	22.92 < 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	Chain 2	Chain 3
54	5270	40.40	40.43	41.26	40.81
62	5310	40.37	40.70	40.95	40.34
102	5510	40.57	41.30	40.51	41.30
110	5550	40.76	41.16	40.60	40.67
134	5670	40.88	40.79	40.59	40.72
142 (U-NII-2C)	5710	35.35	35.10	35.24	35.48
142 (U-NII-3)	5710	5.21	5.61	4.99	5.47

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	40.40	27.06 > 24
62	5310	40.34	27.05 > 24
102	5510	40.51	27.07 > 24
110	5550	40.60	27.08 > 24
134	5670	40.59	27.08 > 24
142 (U-NII-2C)	5710	35.10	26.45 > 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	Chain 2	Chain 3
58	5290	81.73	80.98	81.36	81.69
106	5530	81.55	81.67	81.71	82.13
122	5610	81.32	81.98	81.32	81.45
138 (U-NII-2C)	5690	75.67	75.78	75.68	75.65
138 (U-NII-3)	5690	5.58	5.74	5.46	5.88

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	80.98	30.08 > 24
106	5530	81.55	30.11 > 24
122	5610	81.32	30.1 > 24
138 (U-NII-2C)	5690	75.65	29.78 > 24

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

**802.11ax (HE80+80)**

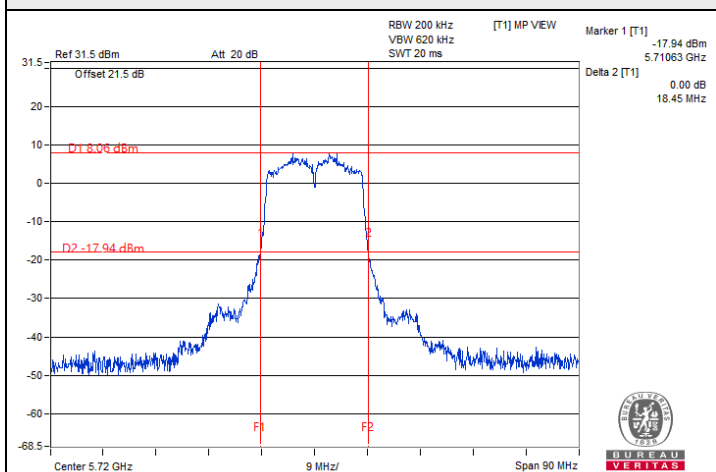
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42+58(H)	5290	-	-	81.43	81.62
106+122(L)	5530	81.33	82.54	-	-
106+122(H)	5610	-	-	81.48	81.38

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
42+58(H)	5290	81.43	30.1 > 24
106+122(L)	5530	81.33	30.1 > 24
106+122(H)	5610	81.38	30.1 > 24

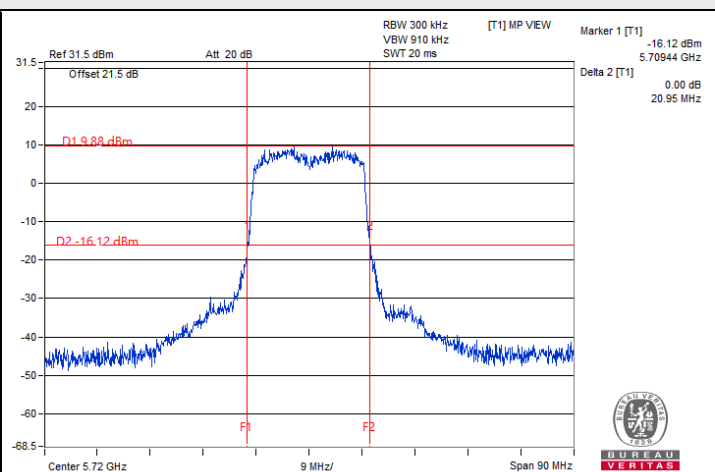
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.



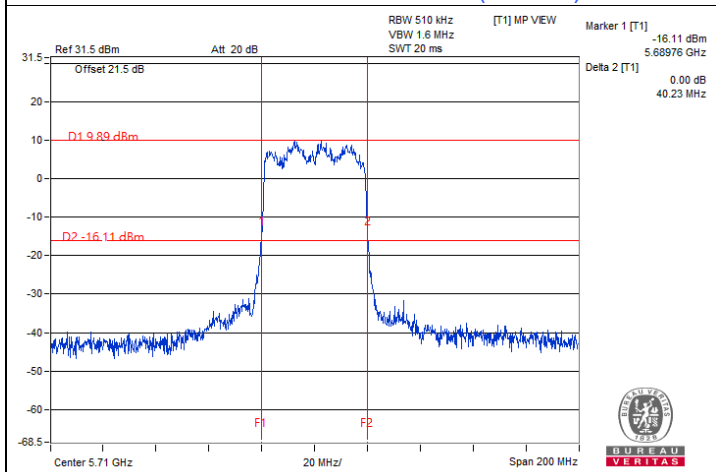
### Spectrum Plot of Minimum Value



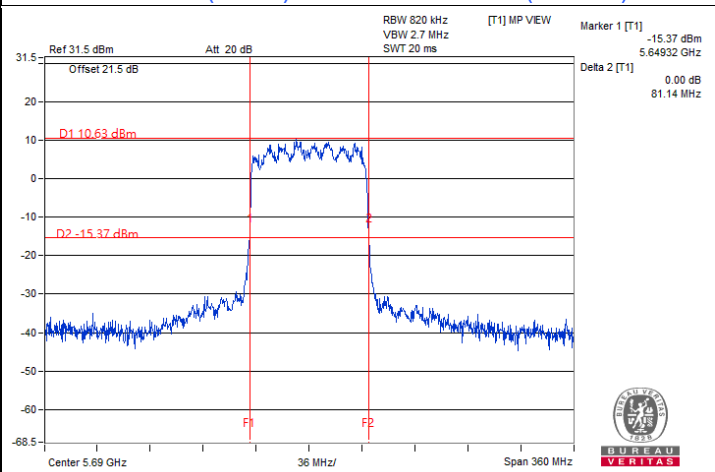
802.11a / Chain 3 : CH 144 (U-NII-3)



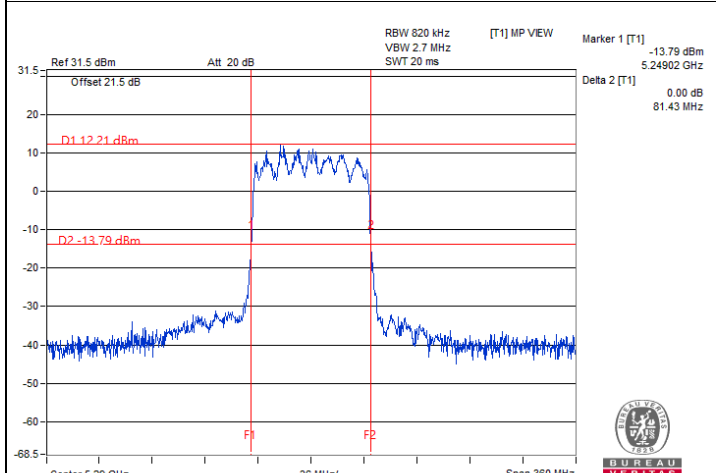
802.11ax (HE20) / Chain 0 : CH 144 (U-NII-3)



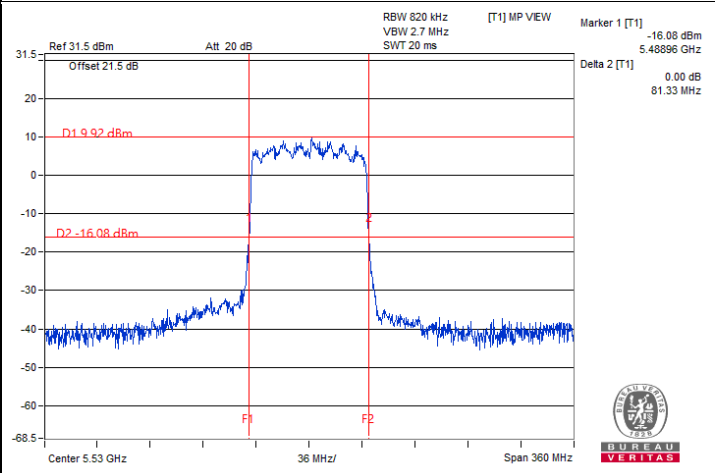
802.11ax (HE40) / Chain 2 : CH 142 (U-NII-3)



802.11ax (HE80) / Chain 2 : CH 138 (U-NII-3)



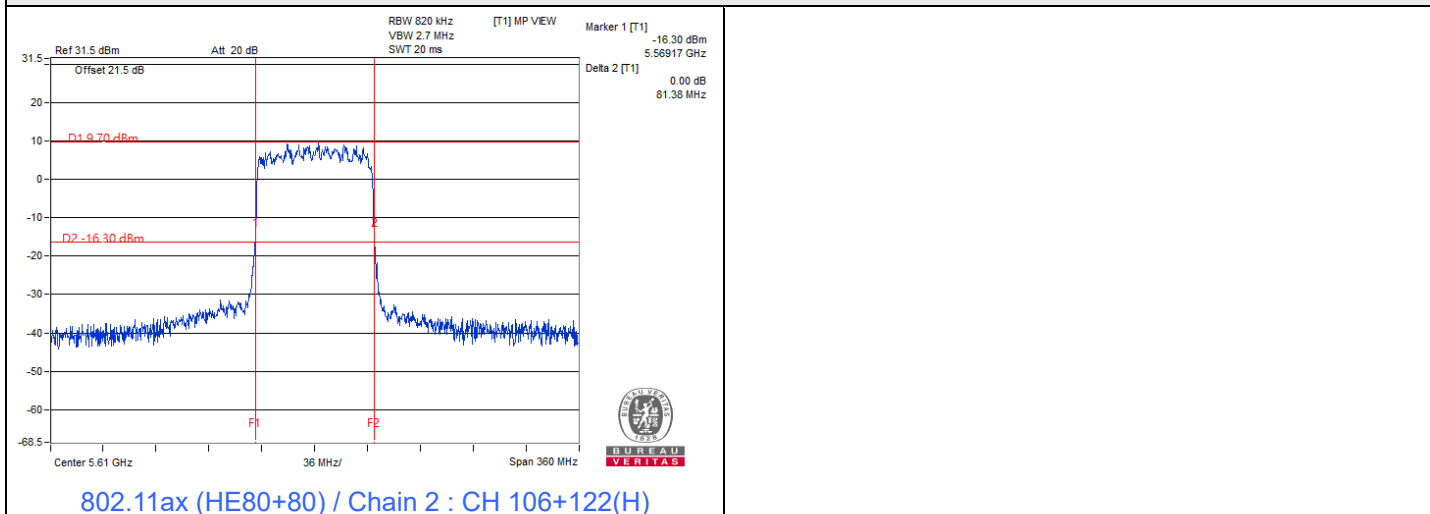
802.11ax (HE80+80) / Chain 2 : CH 42+58(H)



802.11ax (HE80+80) / Chain 0 : CH 106+122(L)



### 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:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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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	Chain 2	Chain 3				
52	5260	17.78	17.42	17.47	17.23	223.878	23.50	23.66	Pass
60	5300	17.89	17.43	17.56	17.38	228.571	23.59	23.66	Pass
64	5320	17.69	17.18	17.62	17.41	223.879	23.50	23.69	Pass
100	5500	17.12	14.86	16.86	16.95	180.216	22.56	23.68	Pass
116	5580	17.21	14.93	16.85	16.93	181.454	22.59	23.78	Pass
140	5700	17.41	14.69	16.87	16.79	180.919	22.57	23.73	Pass
*144 (U-NII-2C)	5720	15.21	15.31	16.36	16.12	160.455	22.05	22.57	Pass
*144 (U-NII-3)	5720	8.97	8.21	8.19	8.40	29.711	14.73	30	Pass

#### Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11n (HT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.17	17.58	17.39	16.93	213.544	23.29	24	Pass
60	5300	17.24	17.24	17.05	16.60	202.341	23.06	24	Pass
64	5320	17.06	17.40	16.86	17.07	205.232	23.12	24	Pass
100	5500	16.42	15.95	16.34	16.25	168.43	22.26	24	Pass
116	5580	16.56	15.83	15.99	16.31	166.048	22.20	24	Pass
140	5700	16.60	16.37	16.28	15.95	170.877	22.33	24	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.92	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

#### Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11n (HT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.42	17.55	17.35	17.04	217.001	23.36	24	Pass
62	5310	17.37	17.58	17.02	17.28	215.662	23.34	24	Pass
102	5510	17.68	17.11	17.10	17.03	211.77	23.26	24	Pass
110	5550	17.54	17.37	17.14	17.16	215.091	23.33	24	Pass
134	5670	17.36	17.47	17.21	16.97	212.673	23.28	24	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	24	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 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	Chain 2	Chain 3				
52	5260	17.27	17.78	17.57	17.07	221.394	23.45	24	Pass
60	5300	17.42	17.39	17.20	16.70	209.29	23.21	24	Pass
64	5320	17.23	17.56	17.03	17.20	212.808	23.28	24	Pass
100	5500	16.54	16.09	16.51	16.42	174.35	22.41	24	Pass
116	5580	16.74	16.02	16.19	16.50	173.46	22.39	24	Pass
140	5700	16.74	16.54	16.39	16.09	176.483	22.47	24	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.92	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 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	Chain 2	Chain 3				
54	5270	17.55	17.66	17.50	17.15	223.344	23.49	24	Pass
62	5310	17.50	17.69	17.20	17.44	222.926	23.48	24	Pass
102	5510	17.80	17.31	17.23	17.23	219.772	23.42	24	Pass
110	5550	17.64	17.48	17.32	17.27	221.337	23.45	24	Pass
134	5670	17.53	17.65	17.41	17.14	221.676	23.46	24	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	24	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 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	Chain 2	Chain 3				
58	5290	16.33	16.44	16.18	15.71	165.744	22.19	24	Pass
106	5530	16.74	16.43	16.37	16.22	176.391	22.46	24	Pass
122	5610	17.91	17.67	17.54	17.13	228.677	23.59	24	Pass
*138 (U-NII-2C)	5690	14.97	15.37	15.58	15.72	174.356	22.41	24	Pass
*138 (U-NII-3)	5690	1.19	1.91	0.53	0.23	6.323	8.01	30	Pass

Notes:

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT80+80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42+58(L)	5210	17.43	18.62	-	-	128.113	21.08	30	Pass
42+58(H)	5290	-	-	17.42	17.45	110.798	20.45	24	Pass
106+122(L)	5530	17.75	17.01	-	-	218.114	23.39	24	Pass
106+122(H)	5610	-	-	17.22	17.45				

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, transmitting in RF Chain 0 & Chain 1, the maximum gain is 4.63 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, transmitting in RF Chain 2 & Chain 3, the maximum gain is 3.45 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, transmitting in RF Chain 0~1 & Chan 2~3, the maximum gain is 5.02 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	Chain 2	Chain 3				
52	5260	17.59	18.13	17.88	17.38	238.502	23.77	24	Pass
60	5300	17.72	17.69	17.51	17.03	224.735	23.52	24	Pass
64	5320	17.57	17.89	17.36	17.53	229.74	23.61	24	Pass
100	5500	16.86	16.43	16.82	16.75	187.882	22.74	24	Pass
116	5580	17.07	16.32	16.54	16.85	187.287	22.73	24	Pass
140	5700	17.06	16.85	16.72	16.40	189.874	22.78	24	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.92	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

Notes:

1. \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.27 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	Chain 2	Chain 3				
54	5270	17.68	17.82	17.68	17.26	230.973	23.64	24	Pass
62	5310	17.61	17.86	17.35	17.56	230.112	23.62	24	Pass
102	5510	17.99	17.48	17.41	17.38	228.709	23.59	24	Pass
110	5550	17.75	17.63	17.51	17.46	229.591	23.61	24	Pass
134	5670	17.72	17.83	17.57	17.26	230.188	23.62	24	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	24	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 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	Chain 2	Chain 3				
58	5290	16.48	16.56	16.35	15.89	171.72	22.35	24	Pass
106	5530	16.93	16.53	16.51	16.42	182.92	22.62	24	Pass
122	5610	18.09	17.79	17.69	17.29	236.863	23.74	24	Pass
*138 (U-NII-2C)	5690	14.97	15.37	15.58	15.72	174.356	22.41	24	Pass
*138 (U-NII-3)	5690	1.19	1.91	0.53	0.23	6.323	8.01	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 4.28 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.27 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ax (HE80+80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42+58(L)	5210	17.53	18.76	-	-	131.786	21.20	30	Pass
42+58(H)	5290	-	-	17.54	17.56	113.771	20.56	24	Pass
106+122(L)	5530	17.85	17.12	-	-	225.872	23.54	24	Pass
106+122(H)	5610	-	-	17.46	17.61				

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, transmitting in RF Chain 0 & Chain 1, the maximum gain is 4.63 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, transmitting in RF Chain 2 & Chain 3, the maximum gain is 3.45 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, transmitting in RF Chain 0~1 & Chan 2~3, the maximum gain is 5.02 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11n (HT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.17	17.58	17.39	16.93	213.544	23.29	24	Pass
60	5300	17.24	17.24	17.05	16.60	202.341	23.06	24	Pass
64	5320	17.06	17.40	16.86	17.07	205.232	23.12	24	Pass
100	5500	16.42	15.95	16.34	16.25	168.43	22.26	23.11	Pass
116	5580	16.56	15.83	15.99	16.31	166.048	22.20	23.11	Pass
140	5700	16.60	16.37	16.28	15.95	170.877	22.33	23.11	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.03	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

Notes:

1. \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
5. For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11n (HT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.42	17.55	17.35	17.04	217.001	23.36	24	Pass
62	5310	17.37	17.58	17.02	17.28	215.662	23.34	24	Pass
102	5510	16.36	16.01	15.84	15.81	159.631	22.03	23.11	Pass
110	5550	16.25	16.02	16.08	15.98	162.343	22.10	23.11	Pass
134	5670	16.18	16.36	16.21	15.77	164.287	22.16	23.11	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	23.11	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 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	Chain 2	Chain 3				
52	5260	17.27	17.78	17.57	17.07	221.394	23.45	24	Pass
60	5300	17.42	17.39	17.20	16.70	209.29	23.21	24	Pass
64	5320	17.23	17.56	17.03	17.20	212.808	23.28	24	Pass
100	5500	16.54	16.09	16.51	16.42	174.35	22.41	23.11	Pass
116	5580	16.74	16.02	16.19	16.50	173.46	22.39	23.11	Pass
140	5700	16.74	16.54	16.39	16.09	176.483	22.47	23.11	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.03	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.



### 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	Chain 2	Chain 3				
54	5270	17.55	17.66	17.50	17.15	223.344	23.49	24	Pass
62	5310	17.50	17.69	17.20	17.44	222.926	23.48	24	Pass
102	5510	16.60	16.29	16.14	16.05	169.655	22.30	23.11	Pass
110	5550	16.50	16.31	16.30	16.22	171.962	22.35	23.11	Pass
134	5670	16.47	16.60	16.41	16.03	173.909	22.40	23.11	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	23.11	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

### 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	Chain 2	Chain 3				
58	5290	16.33	16.44	16.18	15.71	165.744	22.19	24	Pass
106	5530	16.74	16.43	16.37	16.22	176.391	22.46	23.11	Pass
122	5610	16.82	16.64	16.38	16.00	177.477	22.49	23.11	Pass
*138 (U-NII-2C)	5690	14.97	15.37	15.58	15.72	174.356	22.41	23.11	Pass
*138 (U-NII-3)	5690	1.19	1.91	0.53	0.23	6.323	8.01	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

### 802.11ac (VHT80+80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42+58(L)	5210	17.43	18.62	-	-	128.113	21.08	29.89	Pass
42+58(H)	5290	-	-	17.42	17.45	110.798	20.45	24	Pass
106+122(L)	5530	17.16	16.37	-	-	189.254	22.77	23.11	Pass
106+122(H)	5610	-	-	16.60	16.83				

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-1, the directional gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to  $30-(6.11-6) = 29.89$  dBm.
3. For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].

### 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	Chain 2	Chain 3				
52	5260	17.59	18.13	17.88	17.38	238.502	23.77	24	Pass
60	5300	17.72	17.69	17.51	17.03	224.735	23.52	24	Pass
64	5320	17.57	17.89	17.36	17.53	229.74	23.61	24	Pass
100	5500	16.86	16.43	16.82	16.75	187.882	22.74	23.11	Pass
116	5580	17.07	16.32	16.54	16.85	187.287	22.73	23.11	Pass
140	5700	17.06	16.85	16.72	16.40	189.874	22.78	23.11	Pass
*144 (U-NII-2C)	5720	13.93	14.82	14.65	14.96	144.3	21.59	22.03	Pass
*144 (U-NII-3)	5720	9.08	9.61	9.50	9.43	43.597	16.39	30	Pass

Notes:

1. \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
5. For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

### 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	Chain 2	Chain 3				
54	5270	17.68	17.82	17.68	17.26	230.973	23.64	24	Pass
62	5310	17.61	17.86	17.35	17.56	230.112	23.62	24	Pass
102	5510	16.89	16.54	16.41	16.31	180.455	22.56	23.11	Pass
110	5550	16.76	16.53	16.60	16.49	182.677	22.62	23.11	Pass
134	5670	16.76	16.89	16.64	16.27	184.785	22.67	23.11	Pass
*142 (U-NII-2C)	5710	14.61	15.73	14.96	15.34	164.835	22.17	23.11	Pass
*142 (U-NII-3)	5710	5.06	4.18	3.34	2.70	12.307	10.90	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

### 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	Chain 2	Chain 3				
58	5290	16.48	16.56	16.35	15.89	171.72	22.35	24	Pass
106	5530	16.93	16.53	16.51	16.42	182.92	22.62	23.11	Pass
122	5610	17.12	16.87	16.59	16.21	187.55	22.73	23.11	Pass
*138 (U-NII-2C)	5690	14.97	15.37	15.58	15.72	174.356	22.41	23.11	Pass
*138 (U-NII-3)	5690	1.19	1.91	0.53	0.23	6.323	8.01	30	Pass

**Notes:**

- \* : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the output power limit shall not be reduced.

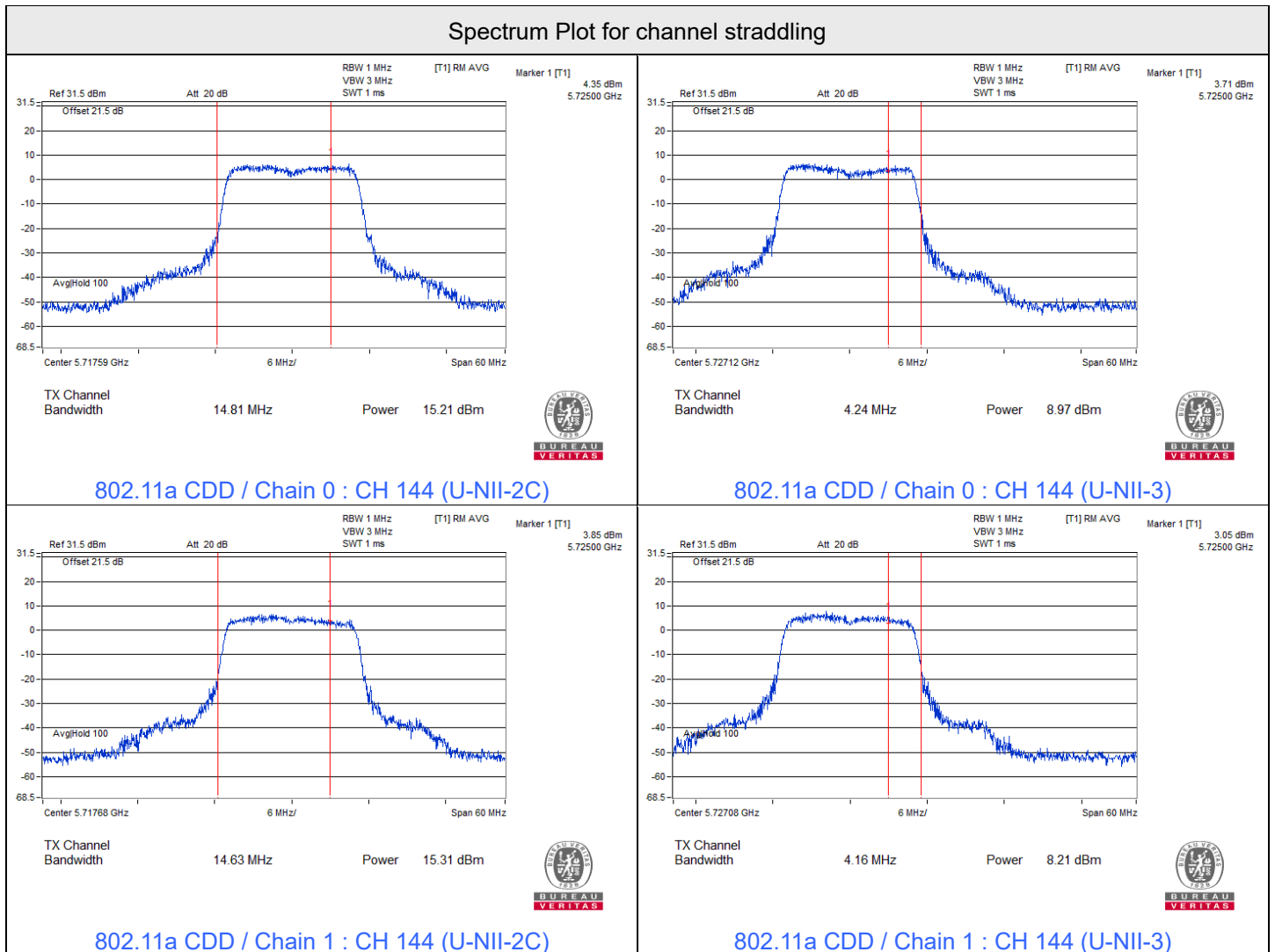


### 802.11ax (HE80+80) Beamforming

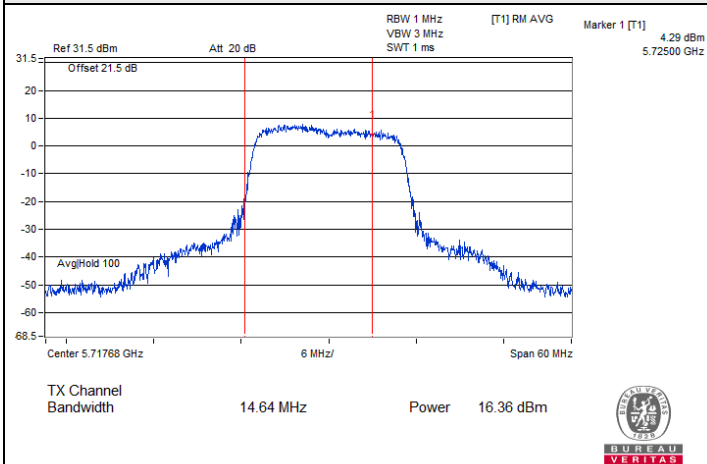
Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42+58(L)	5210	17.53	18.76	-	-	131.786	21.20	29.89	Pass
42+58(H)	5290	-	-	17.54	17.56	113.771	20.56	24	Pass
106+122(L)	5530	17.37	16.65	-	-	200.037	23.01	23.11	Pass
106+122(H)	5610	-	-	16.87	17.04				

Notes:

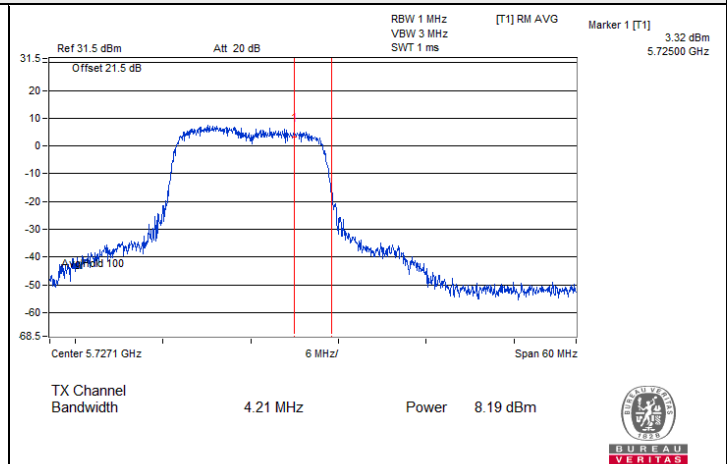
1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-1, the directional gain is 6.11 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.11-6) = 29.89 dBm.
3. For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.89-6)].



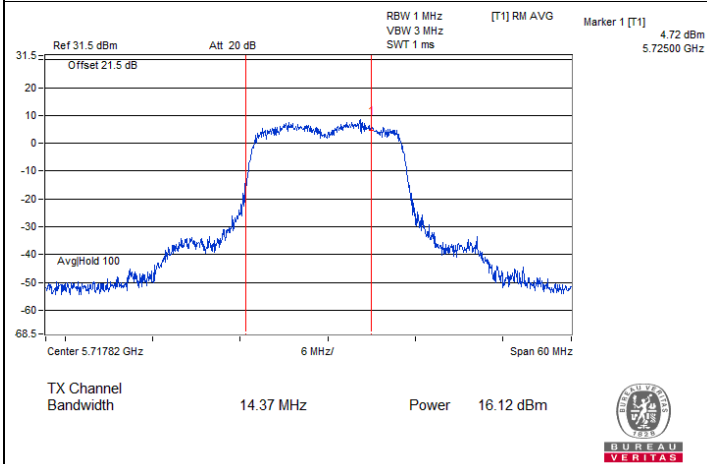
### Spectrum Plot for channel straddling



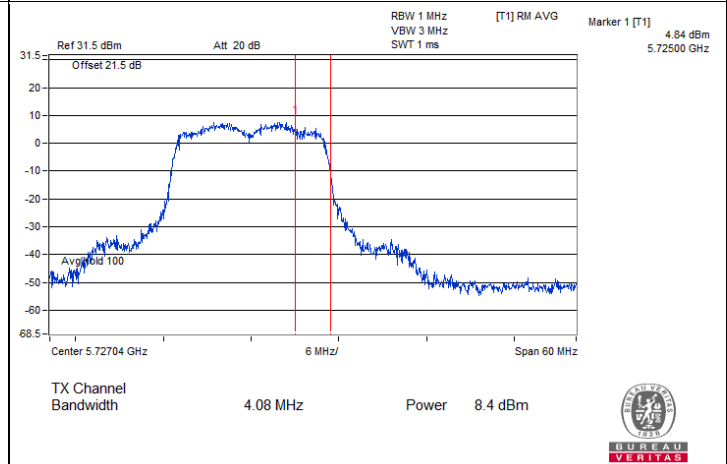
802.11a CDD / Chain 2 : CH 144 (U-NII-2C)



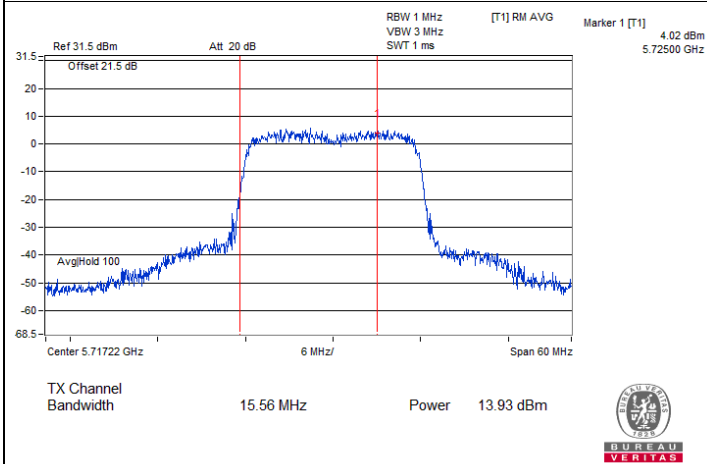
802.11a CDD / Chain 2 : CH 144 (U-NII-3)



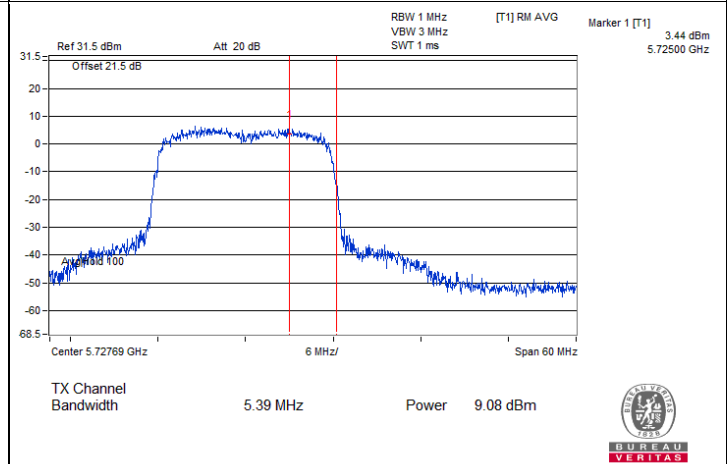
802.11a CDD / Chain 3 : CH 144 (U-NII-2C)



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



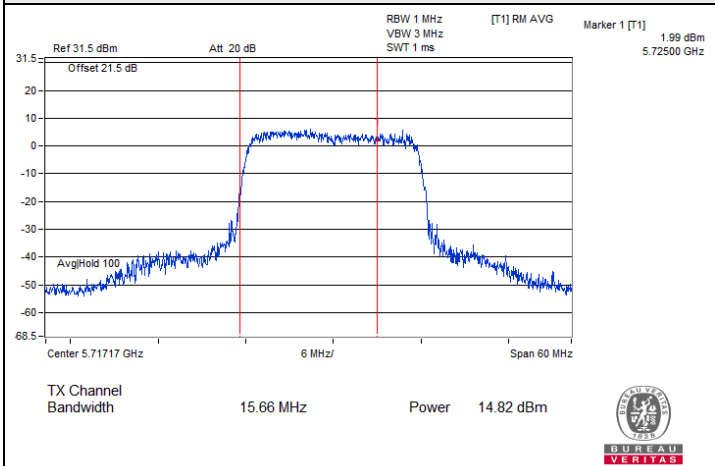
802.11n (HT20) CDD / Chain 0 : CH 144 (U-NII-2C)



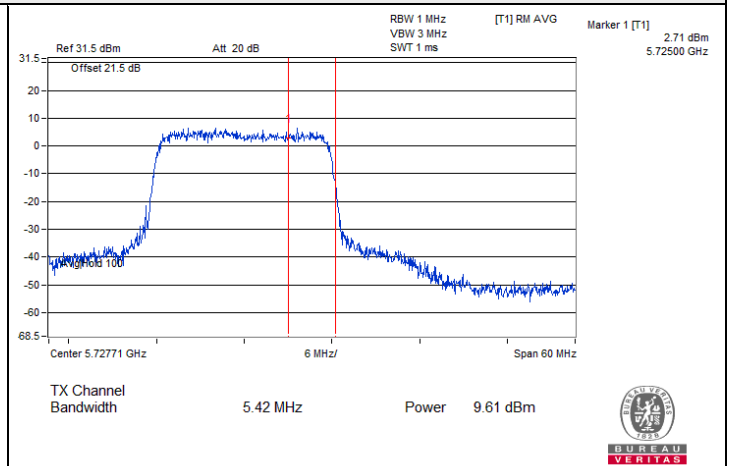
802.11n (HT20) CDD / Chain 0 : CH 144 (U-NII-3)



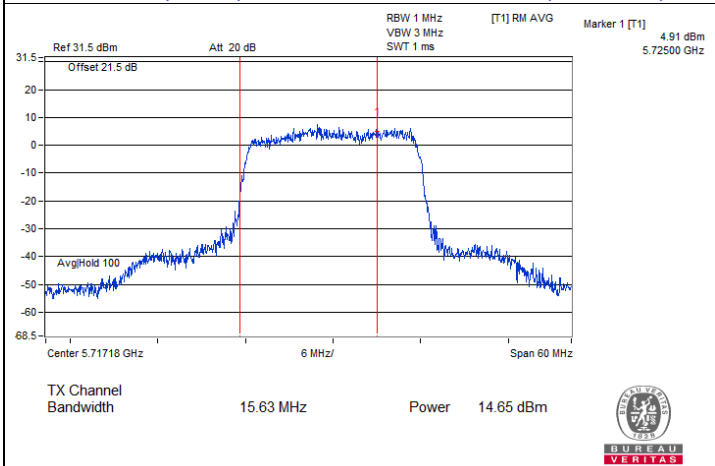
### Spectrum Plot for channel straddling



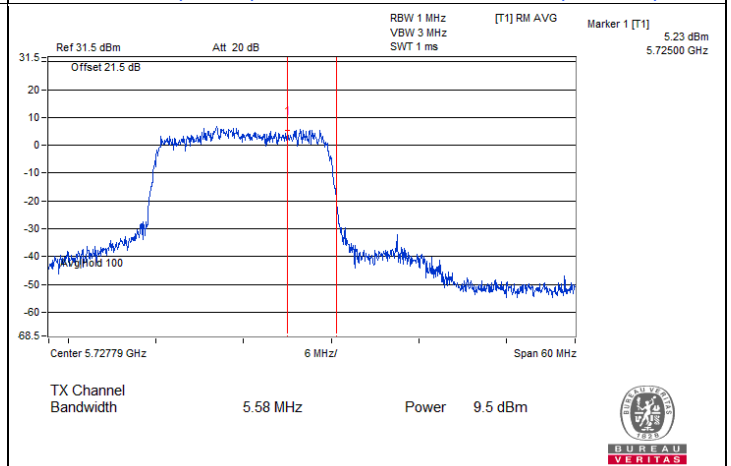
802.11n (HT20) CDD / Chain 1 : CH 144 (U-NII-2C)



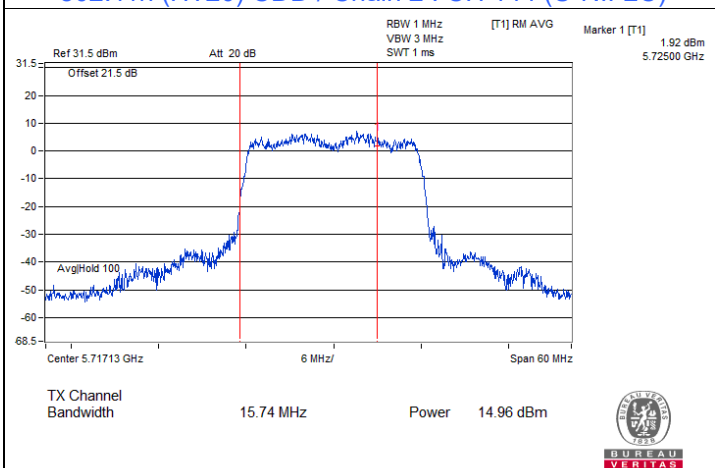
802.11n (HT20) CDD / Chain 1 : CH 144 (U-NII-3)



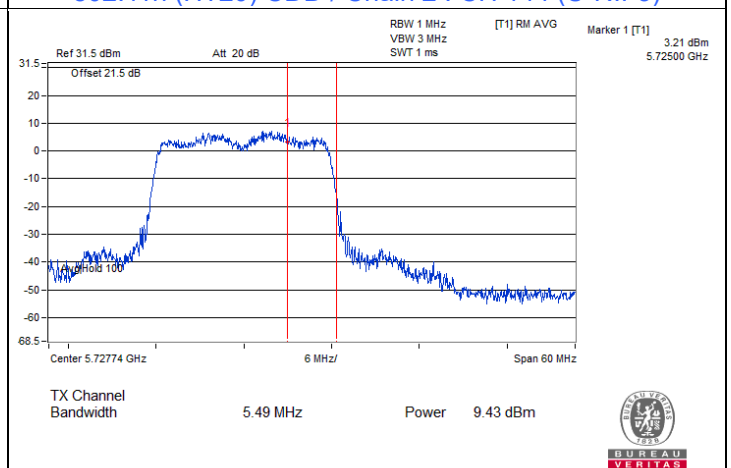
802.11n (HT20) CDD / Chain 2 : CH 144 (U-NII-2C)



802.11n (HT20) CDD / Chain 2 : CH 144 (U-NII-3)



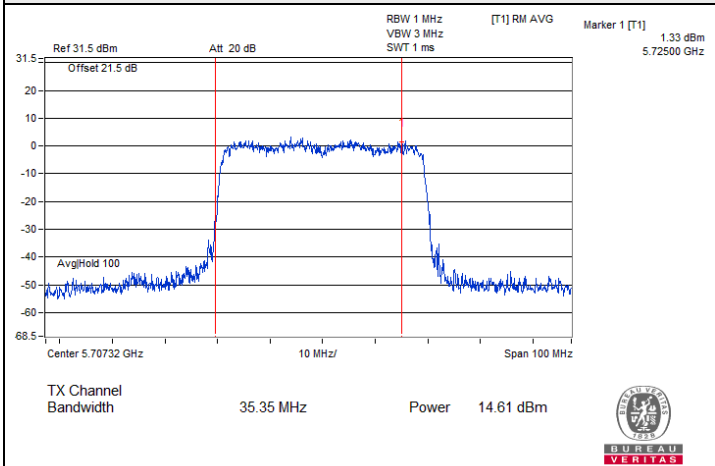
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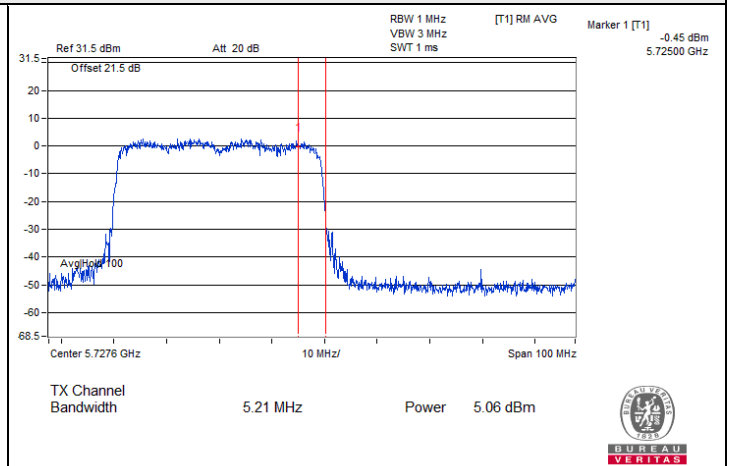
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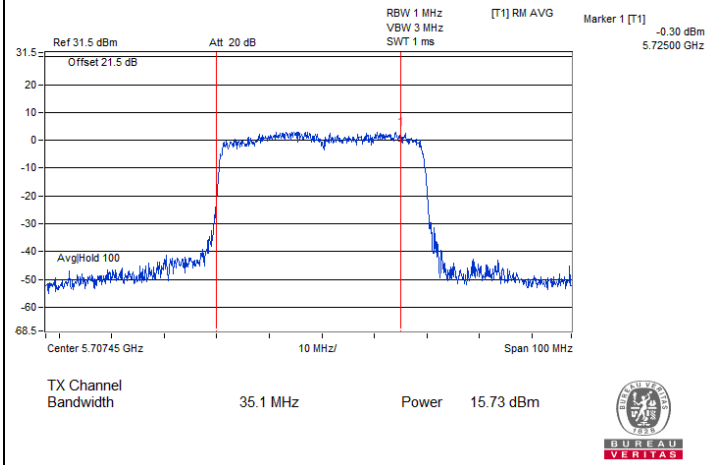
### Spectrum Plot for channel straddling



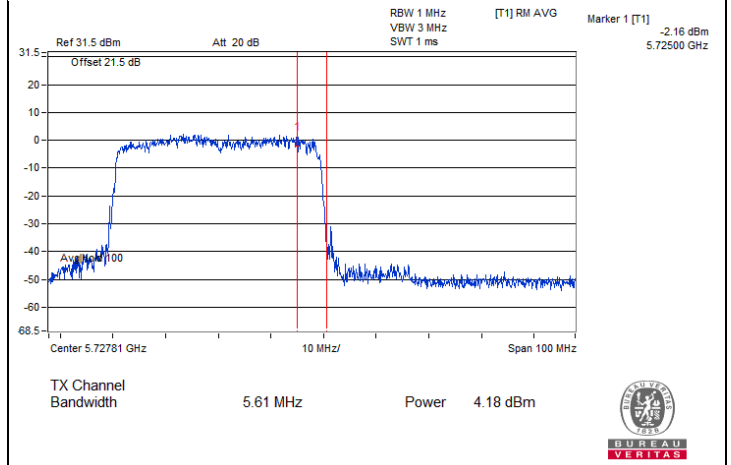
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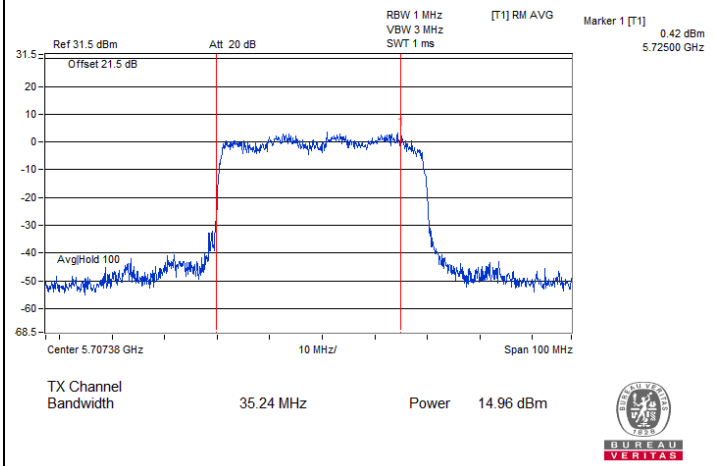
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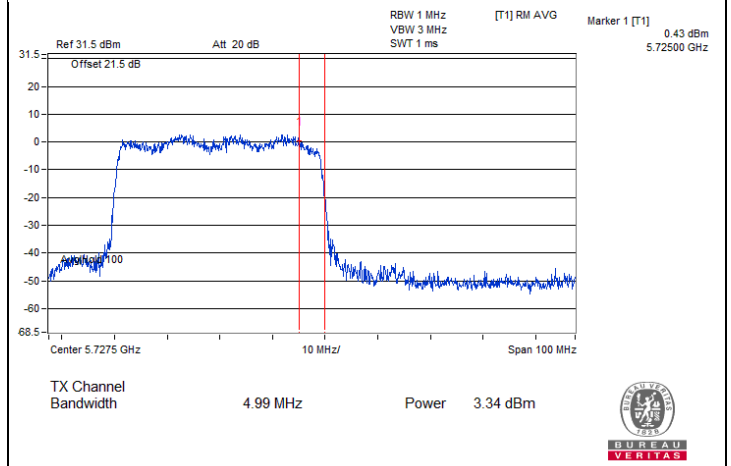
802.11n (HT40) CDD / Chain 1 : CH 142 (U-NII-2C)



802.11n (HT40) CDD / Chain 1 : CH 142 (U-NII-3)



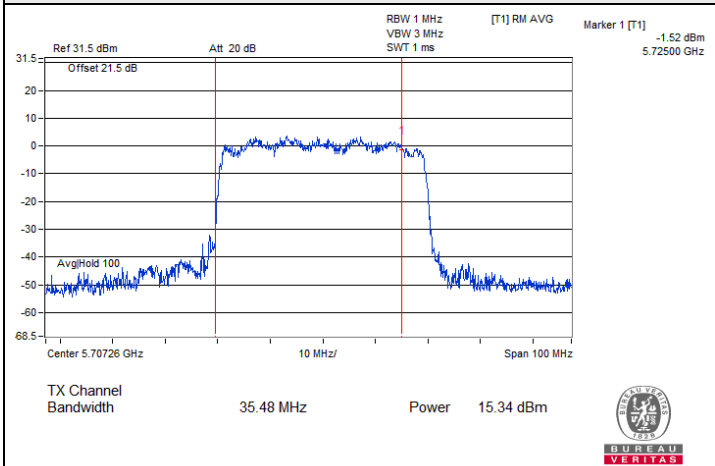
802.11n (HT40) CDD / Chain 2 : CH 142 (U-NII-2C)



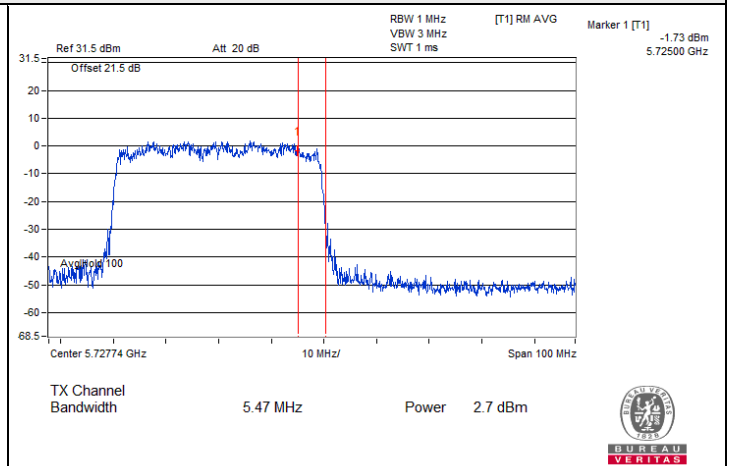
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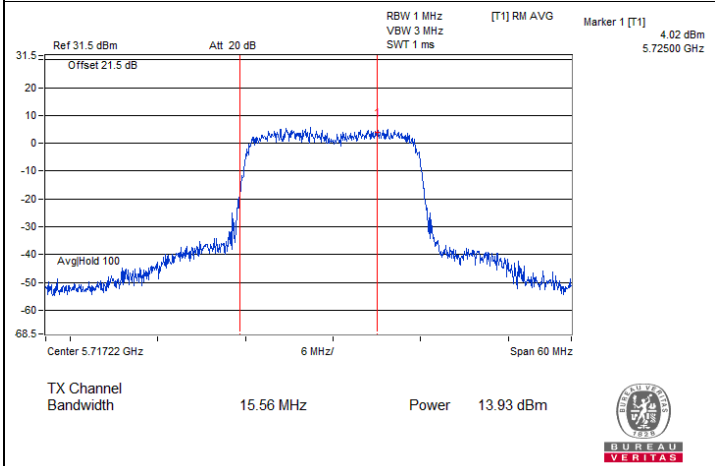
### Spectrum Plot for channel straddling



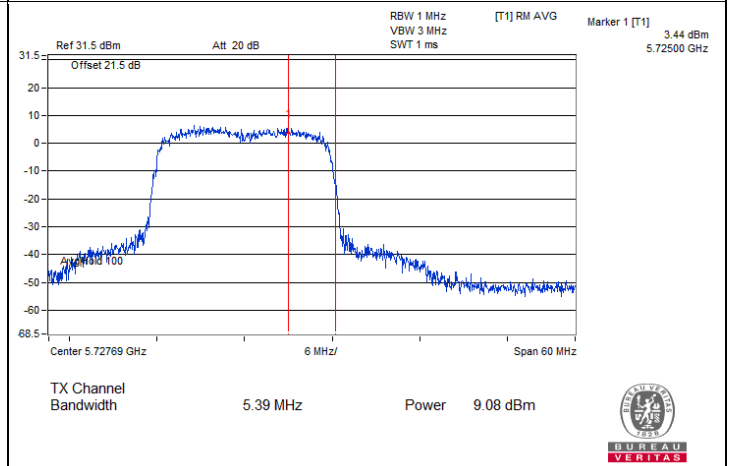
802.11n (HT40) CDD / Chain 3 : CH 142 (U-NII-2C)



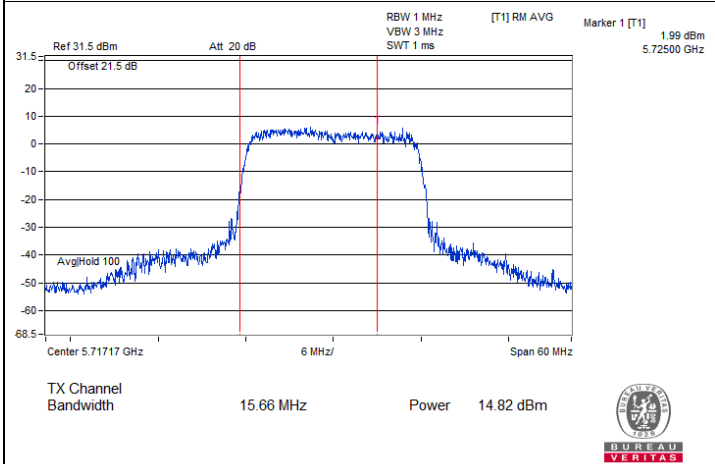
802.11n (HT40) CDD / Chain 3 : CH 142 (U-NII-3)



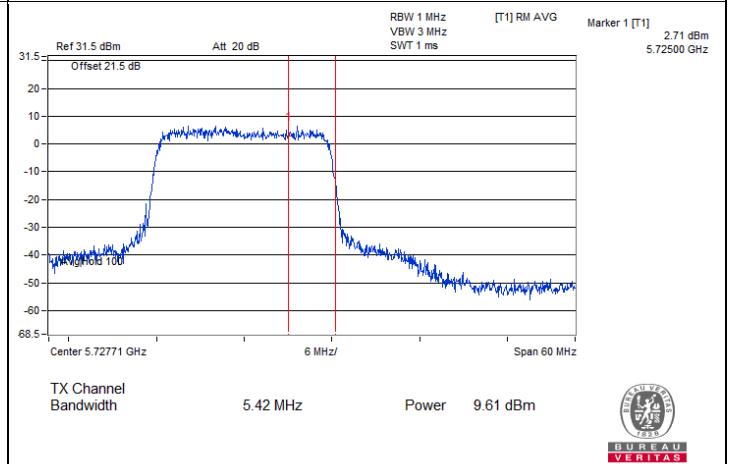
802.11ac (VHT20) CDD / Chain 0 : CH 144 (U-NII-2C)



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



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

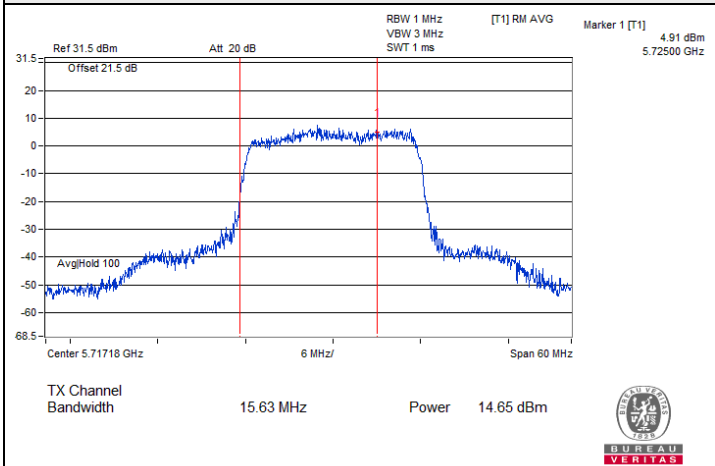


802.11ac (VHT20) CDD / Chain 1 : CH 144 (U-NII-3)

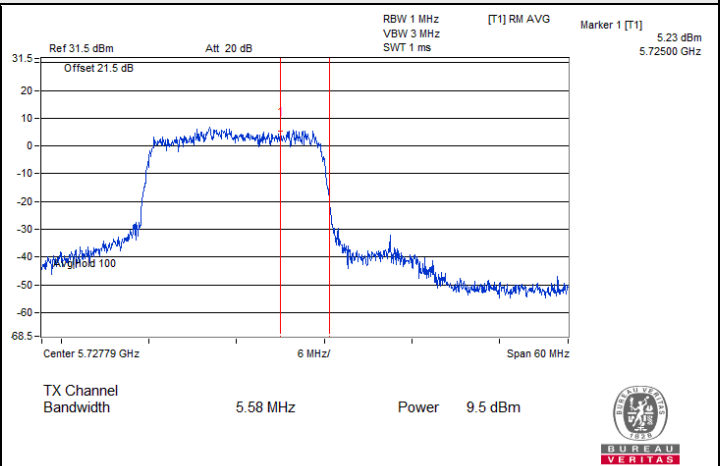




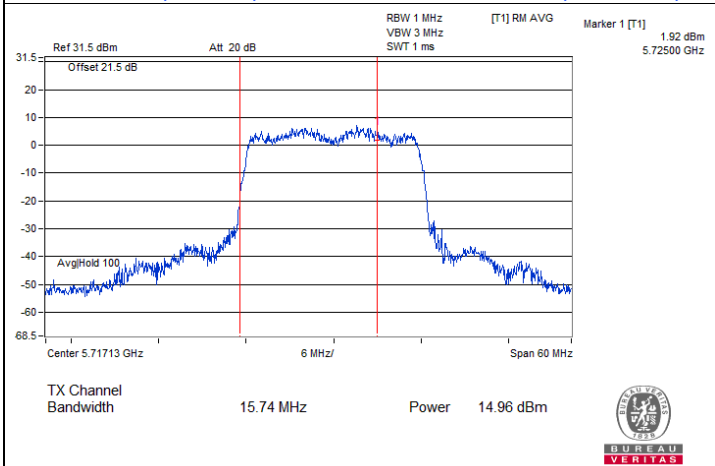
### Spectrum Plot for channel straddling



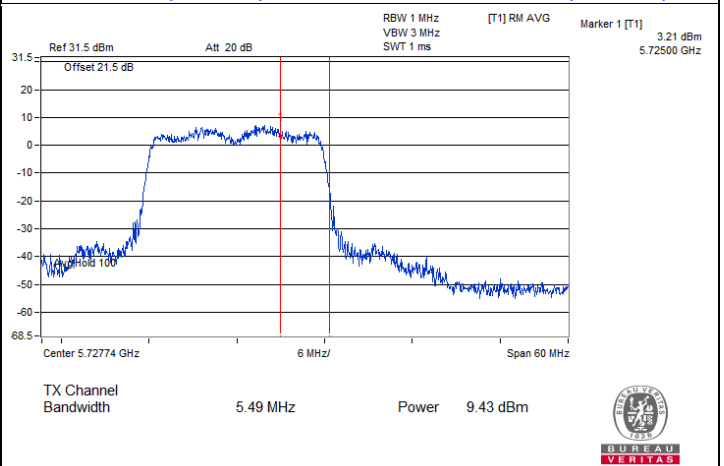
802.11ac (VHT20) CDD / Chain 2 : CH 144 (U-NII-2C)



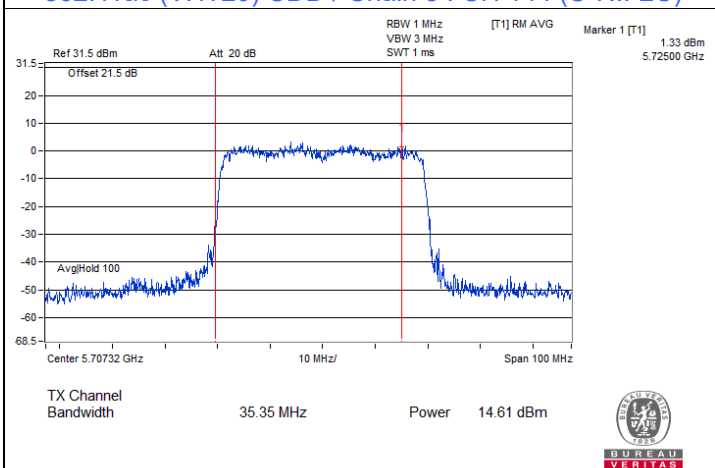
802.11ac (VHT20) CDD / Chain 2 : CH 144 (U-NII-3)



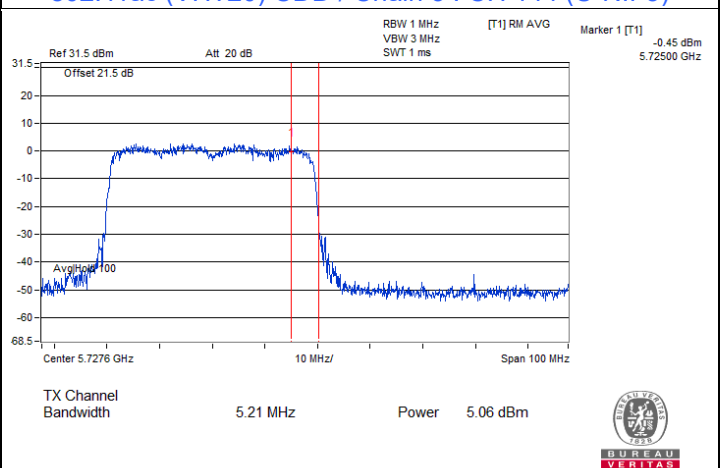
802.11ac (VHT20) CDD / Chain 3 : CH 144 (U-NII-2C)



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



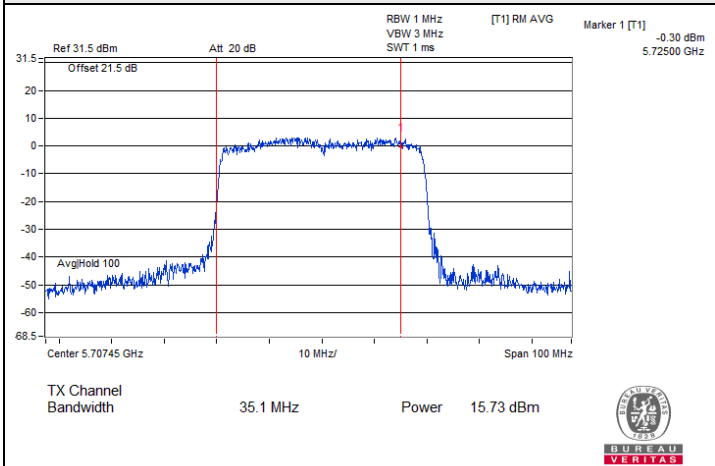
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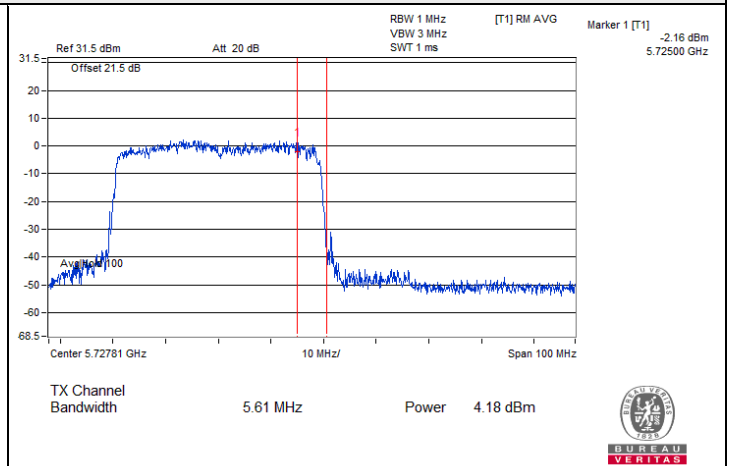
802.11ac (VHT40) CDD / Chain 0 : CH 142 (U-NII-3)



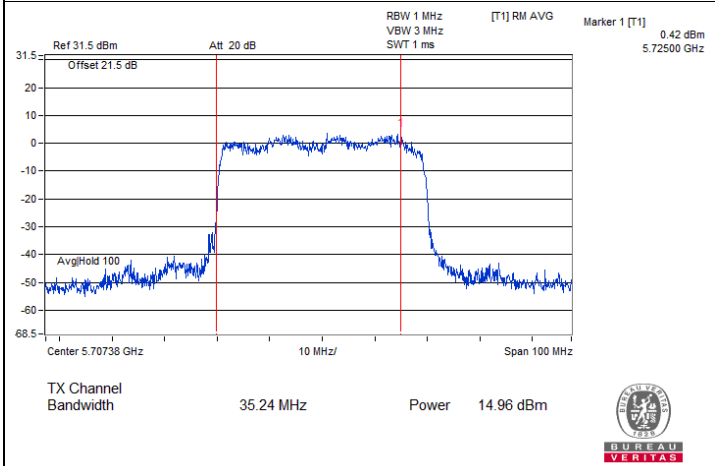
### Spectrum Plot for channel straddling



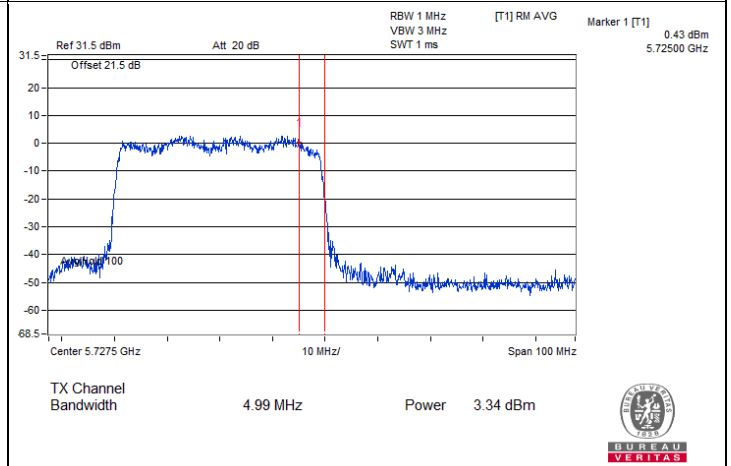
802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-2C)



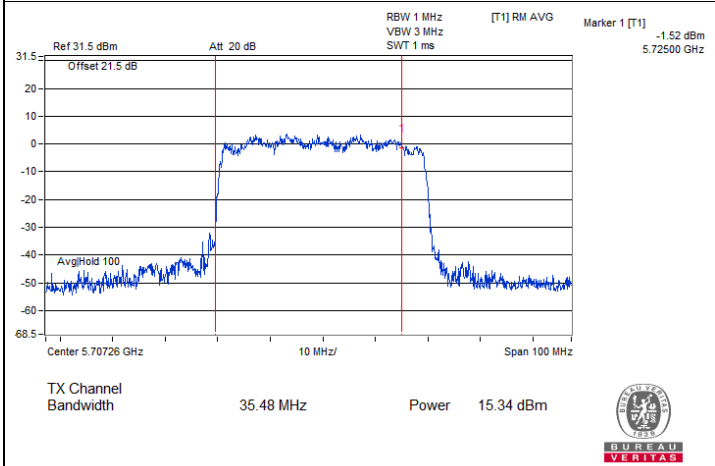
802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-3)



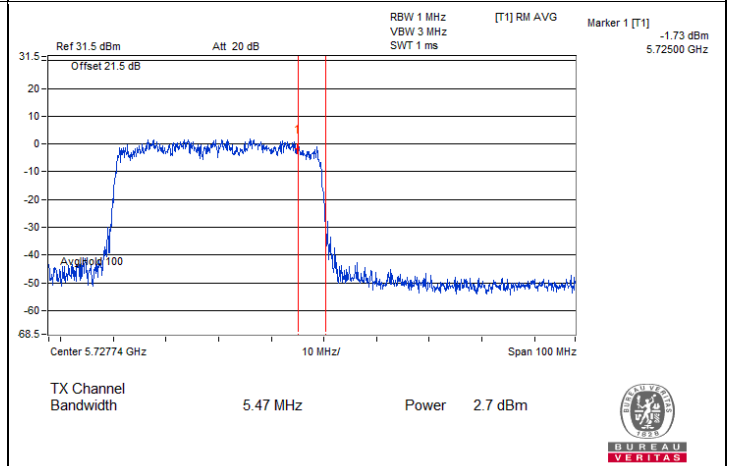
802.11ac (VHT40) CDD / Chain 2 : CH 142 (U-NII-2C)



802.11ac (VHT40) CDD / Chain 2 : CH 142 (U-NII-3)

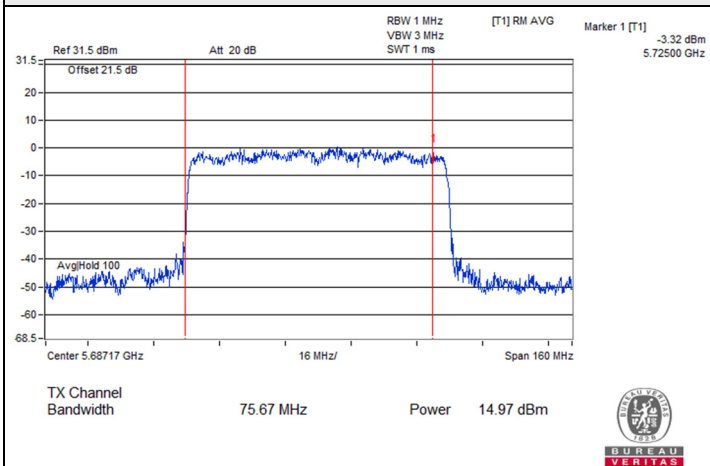


802.11ac (VHT40) CDD / Chain 3 : CH 142 (U-NII-2C)

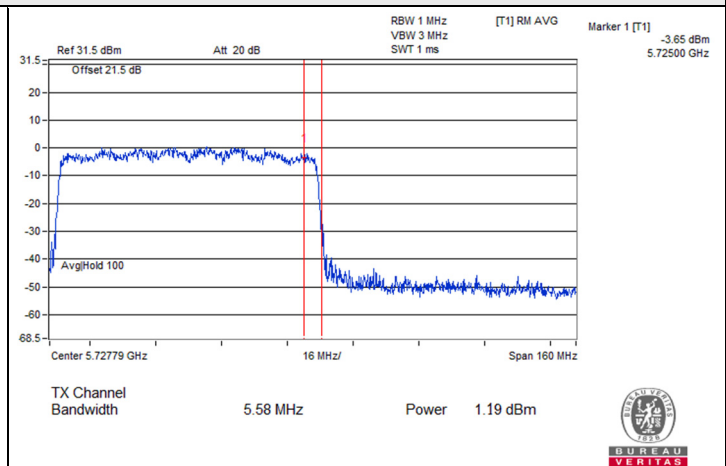


802.11ac (VHT40) CDD / Chain 3 : CH 142 (U-NII-3)

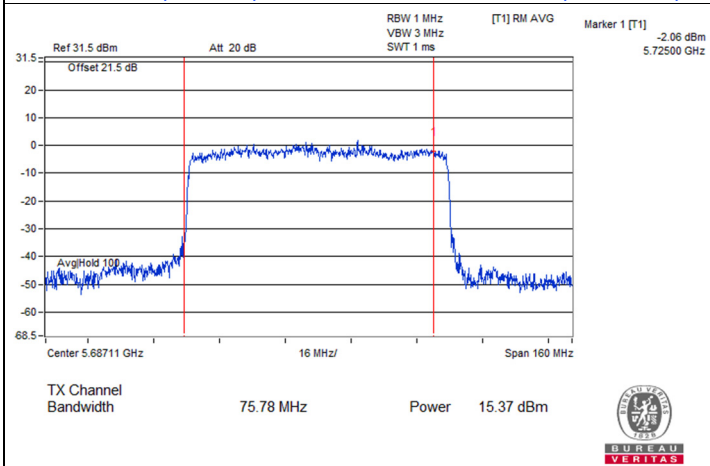
### Spectrum Plot for channel straddling



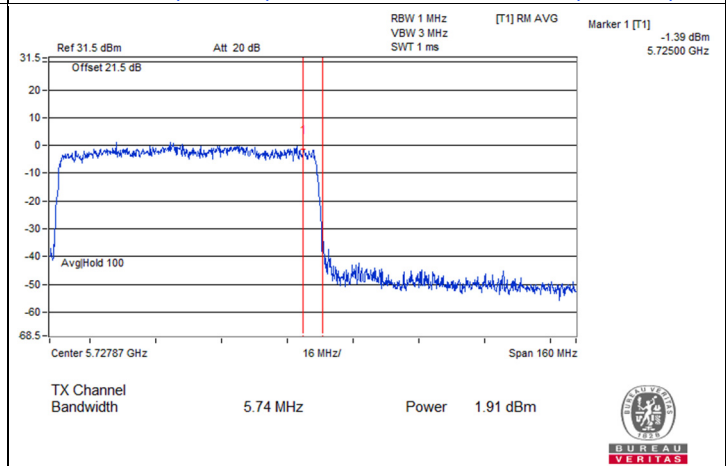
802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-2C)



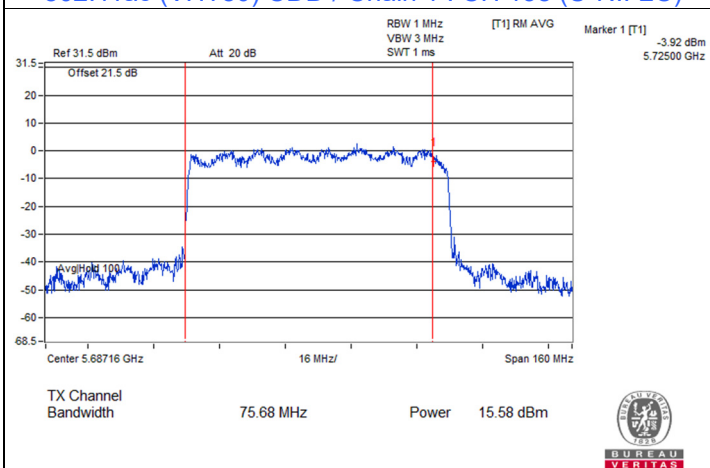
802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-3)



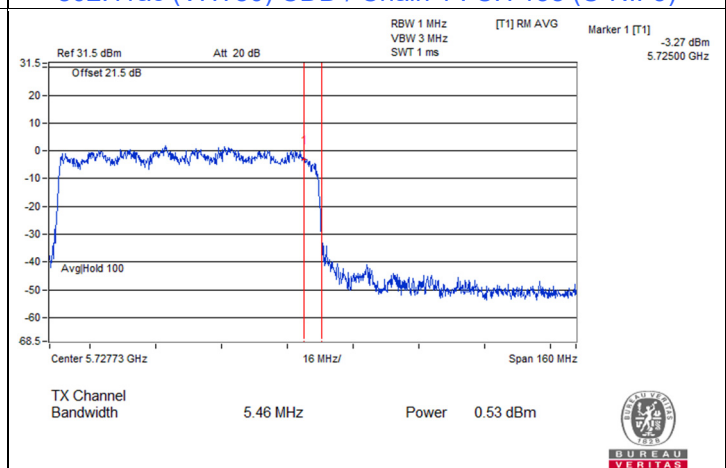
802.11ac (VHT80) CDD / Chain 1 : CH 138 (U-NII-2C)



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



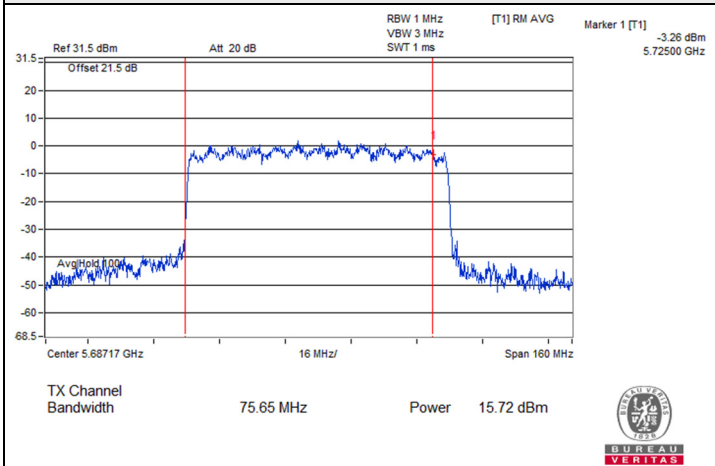
802.11ac (VHT80) CDD / Chain 2 : CH 138 (U-NII-2C)



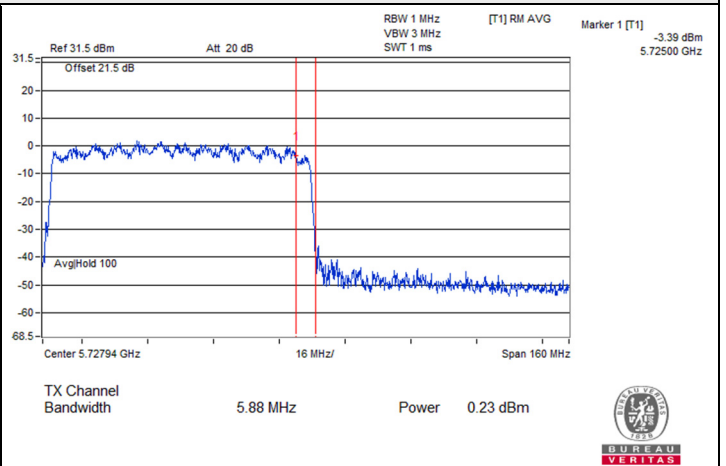
802.11ac (VHT80) CDD / Chain 2 : CH 138 (U-NII-3)



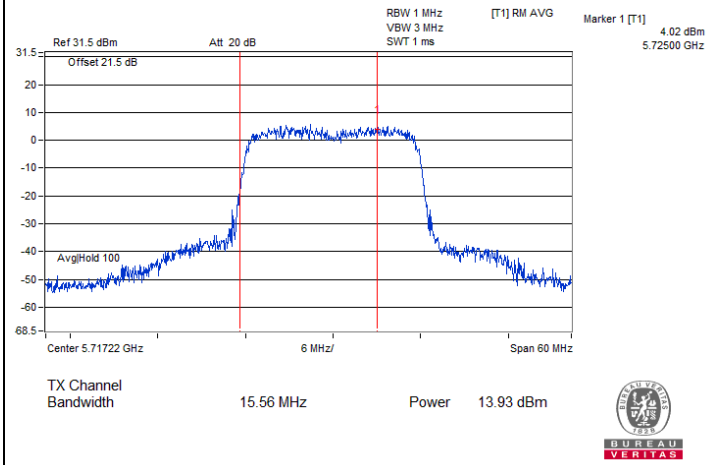
### Spectrum Plot for channel straddling



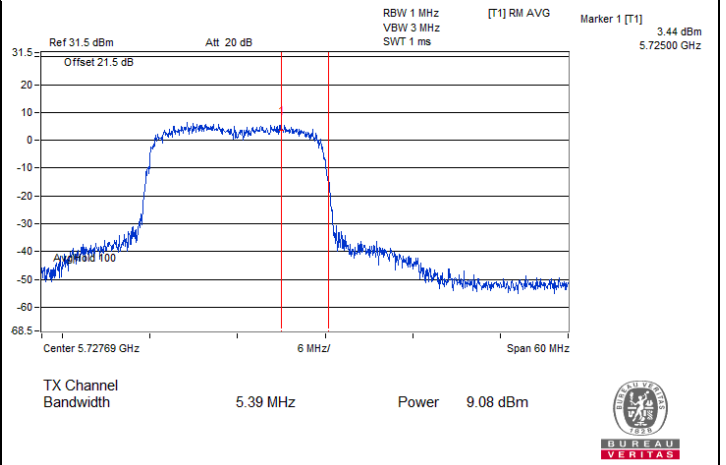
802.11ac (VHT80) CDD / Chain 3 : CH 138 (U-NII-2C)



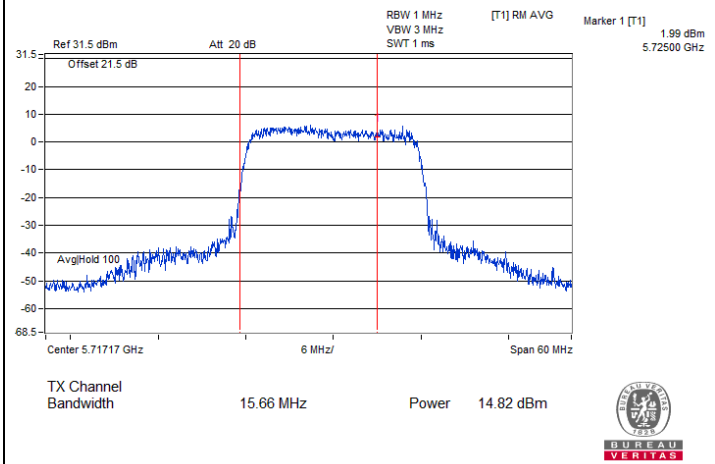
802.11ac (VHT80) CDD / Chain 3 : CH 138 (U-NII-3)



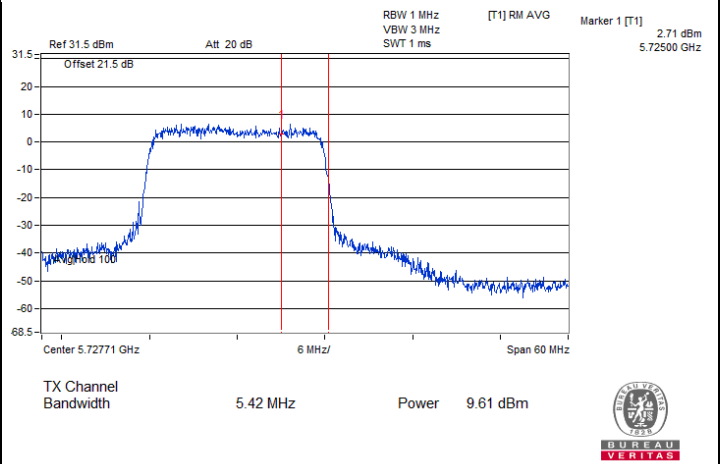
802.11ax (HE20) CDD / Chain 0 : CH 144 (U-NII-2C)



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



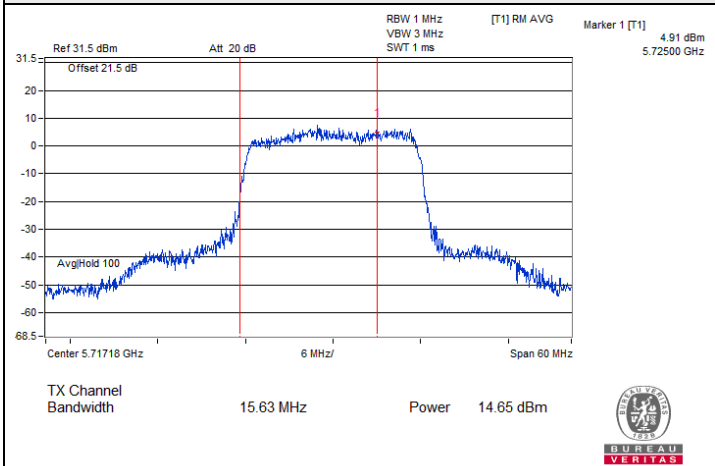
802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-2C)



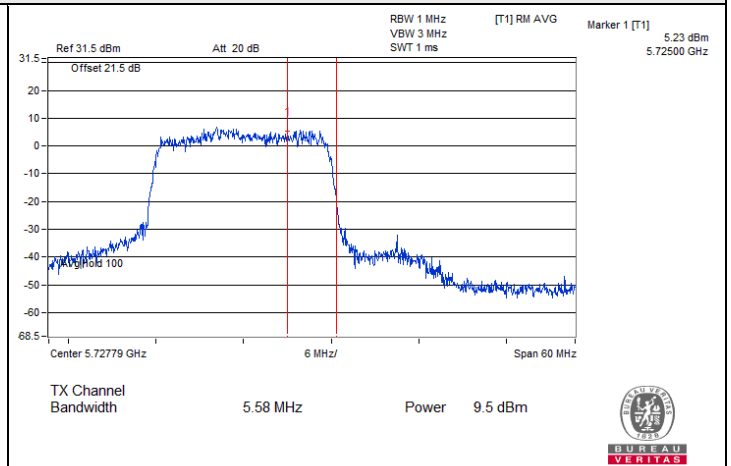
802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-3)



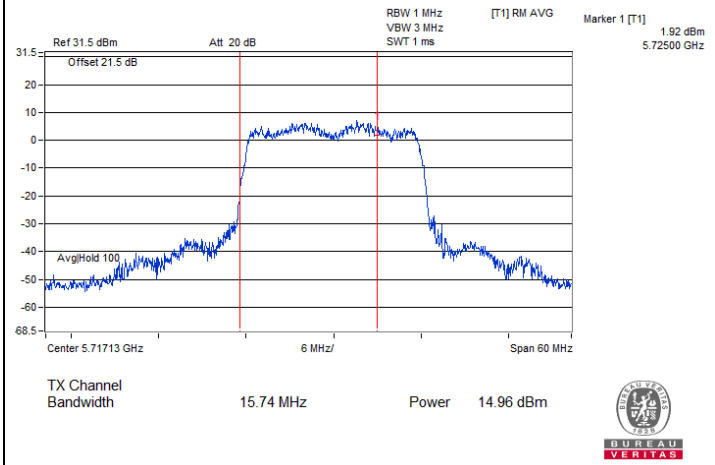
### Spectrum Plot for channel straddling



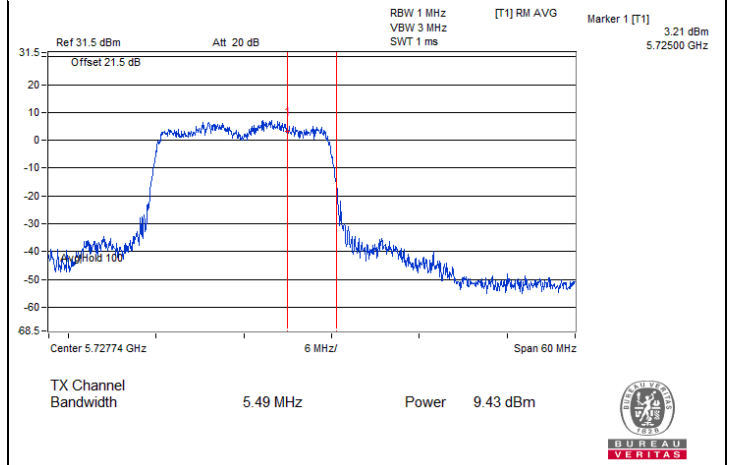
802.11ax (HE20) CDD / Chain 2 : CH 144 (U-NII-2C)



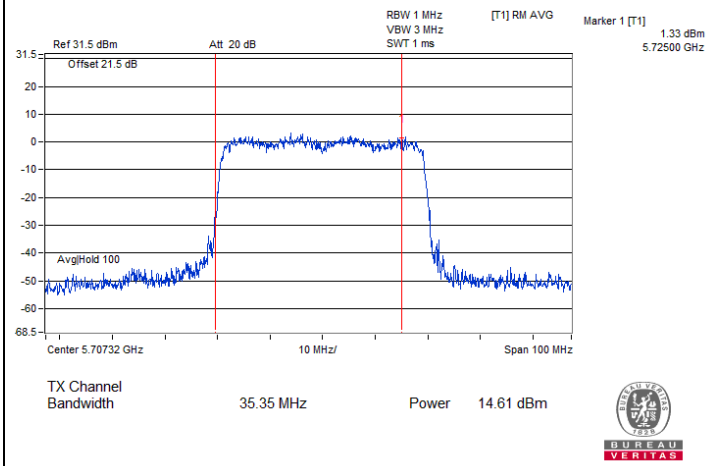
802.11ax (HE20) CDD / Chain 2 : CH 144 (U-NII-3)



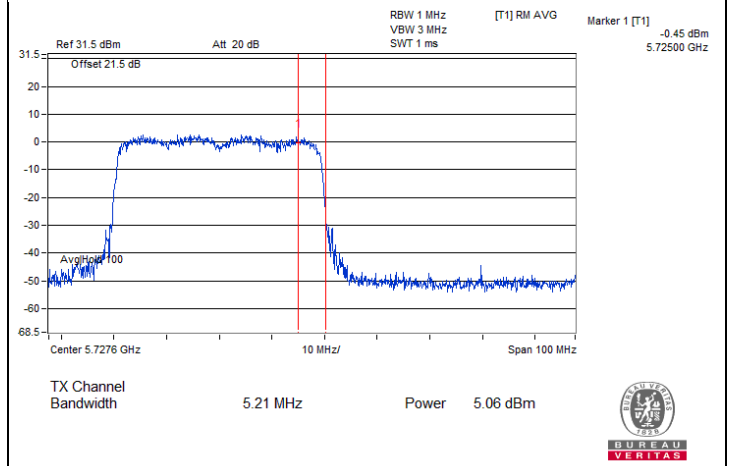
802.11ax (HE20) CDD / Chain 3 : CH 144 (U-NII-2C)



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



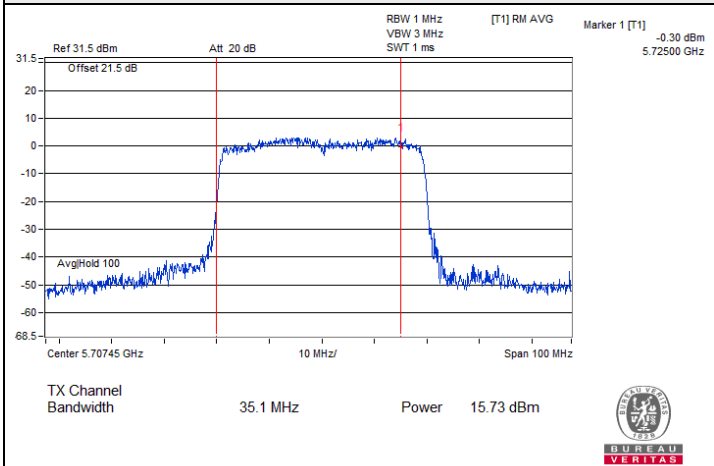
802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-2C)



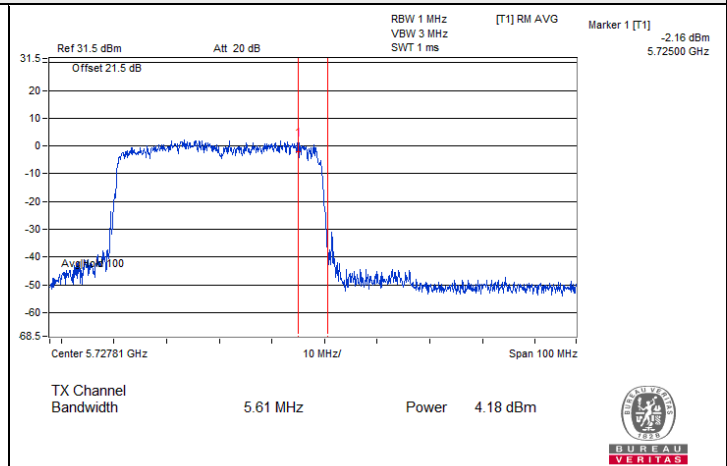
802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-3)



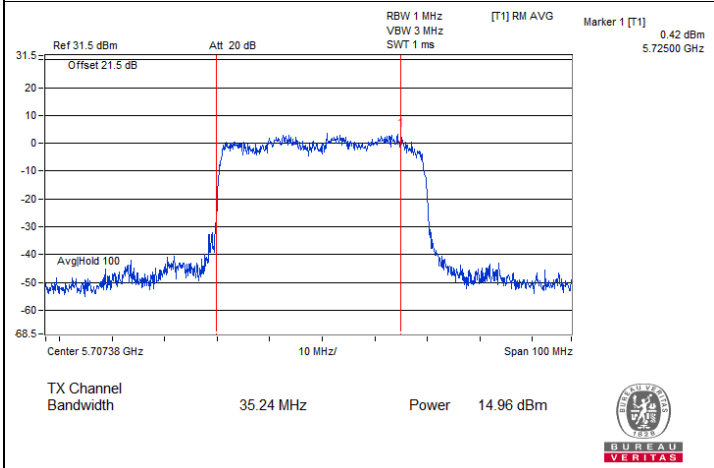
### Spectrum Plot for channel straddling



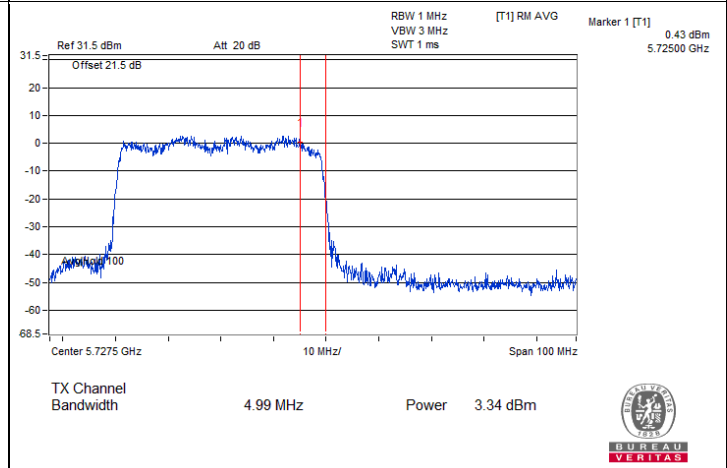
802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-2C)



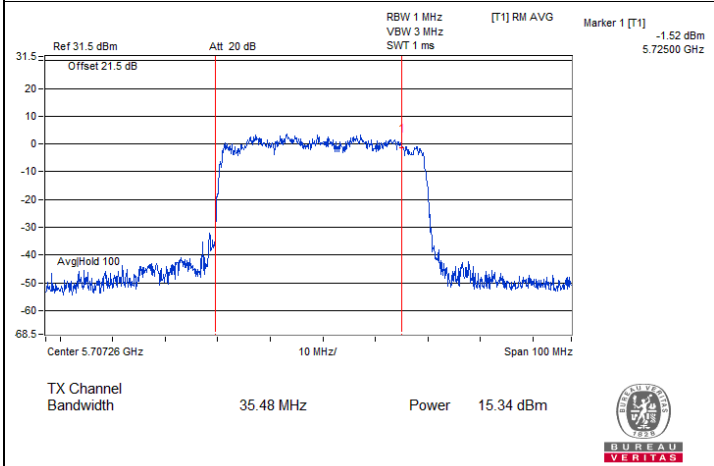
802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-3)



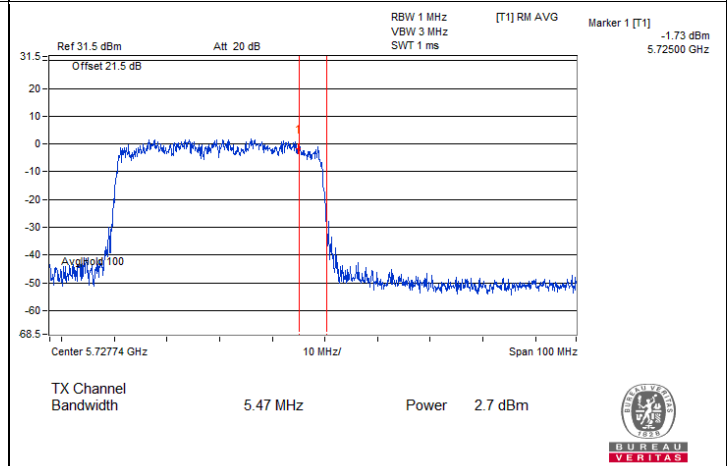
802.11ax (HE40) CDD / Chain 2 : CH 142 (U-NII-2C)



802.11ax (HE40) CDD / Chain 2 : CH 142 (U-NII-3)



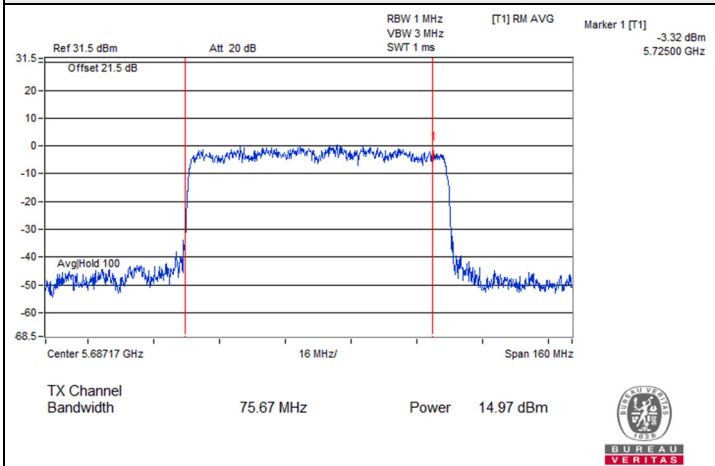
802.11ax (HE40) CDD / Chain 3 : CH 142 (U-NII-2C)



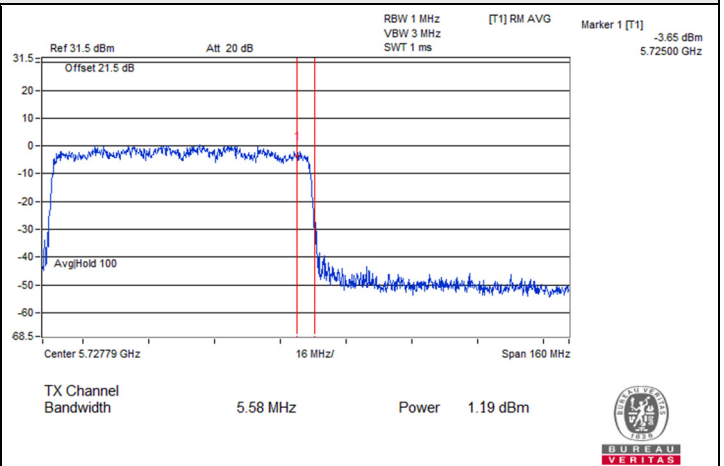
802.11ax (HE40) CDD / Chain 3 : CH 142 (U-NII-3)



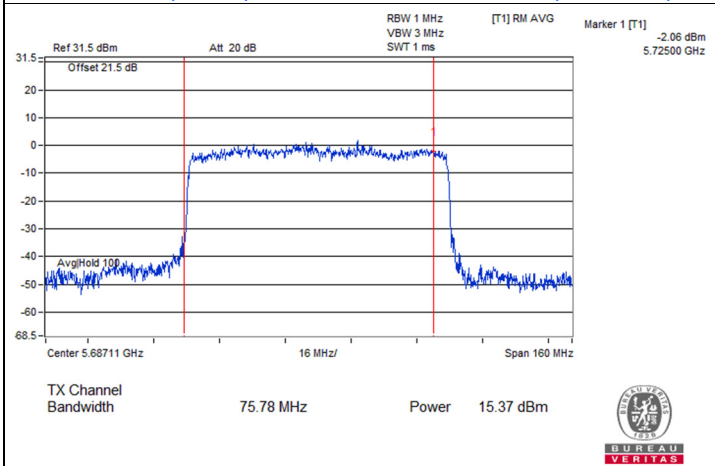
### Spectrum Plot for channel straddling



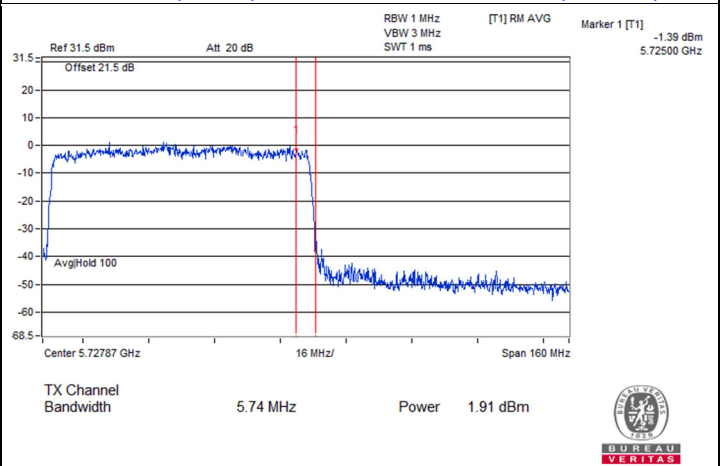
802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-2C)



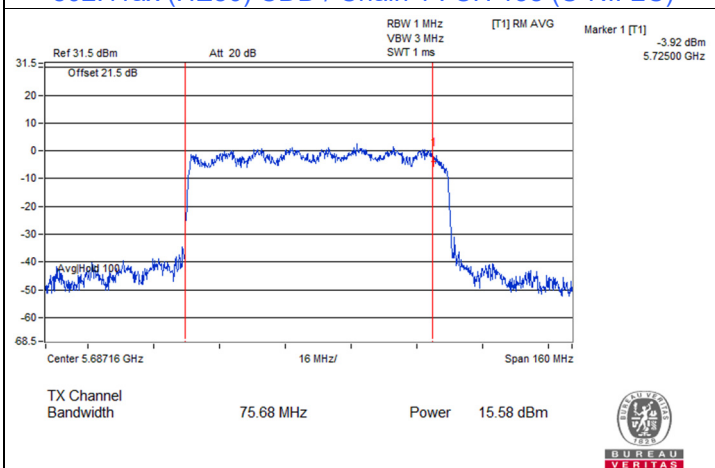
802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-3)



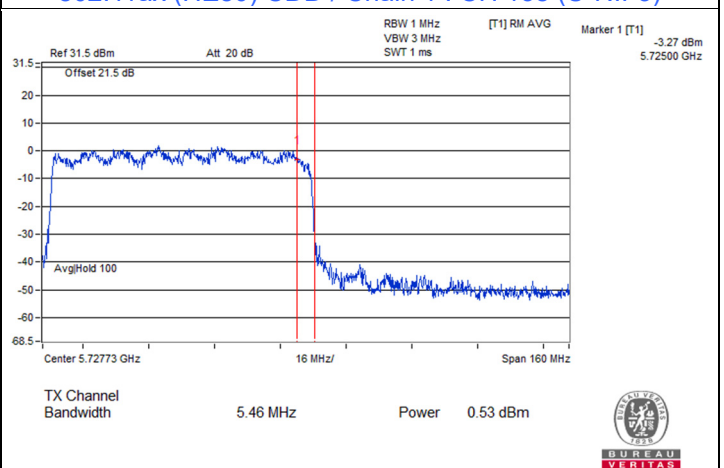
802.11ax (HE80) CDD / Chain 1 : CH 138 (U-NII-2C)



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



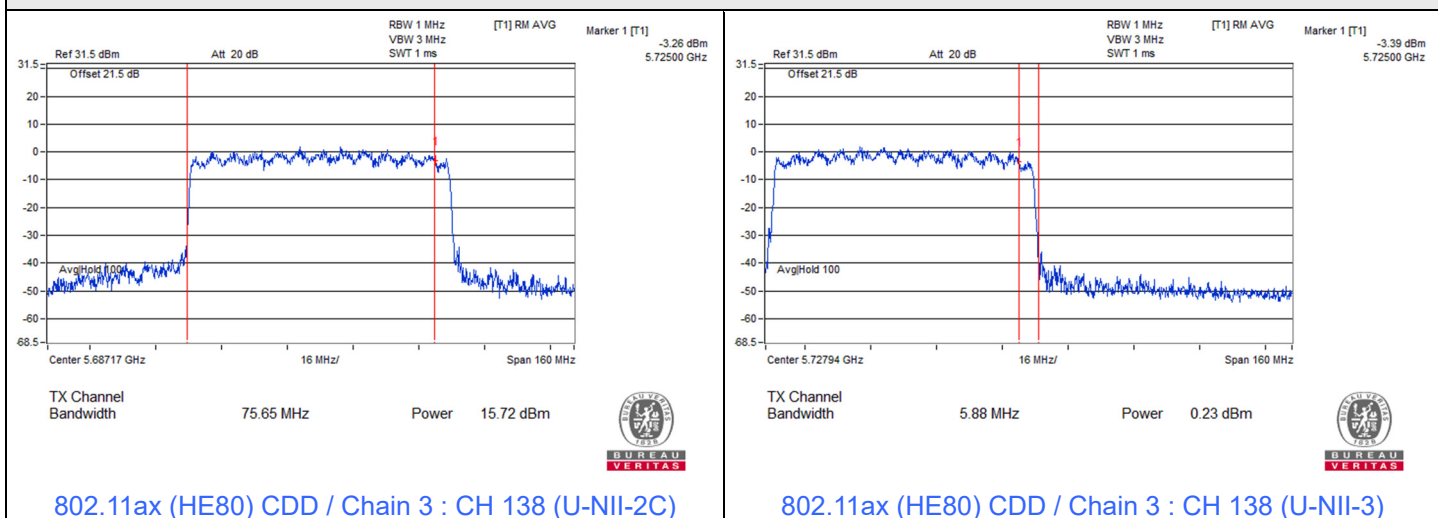
802.11ax (HE80) CDD / Chain 2 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 2 : CH 138 (U-NII-3)



### Spectrum Plot for channel straddling





### 7.3 Power Spectral Density

Input Power:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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#### 802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	3.87	3.55	5.24	4.62	0.25	10.64	11	Pass
60	5300	3.23	5.45	4.48	4.38	0.25	10.73	11	Pass
64	5320	3.75	3.24	4.67	4.56	0.25	10.37	11	Pass
100	5500	3.18	4.54	1.51	4.01	0.25	9.72	10.11	Pass
116	5580	3.96	3.68	3.57	4.06	0.25	10.09	10.11	Pass
140	5700	3.28	3.55	4.19	4.00	0.25	10.04	10.11	Pass
144 (U-NII-2C)	5720	2.80	3.68	4.64	3.94	0.25	10.08	10.11	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the power density limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.89-6) = 10.11 dBm/MHz.

#### 802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	5.20	1.32	5.02	0.32	0.96	10.46	11	Pass
60	5300	4.52	4.45	3.44	2.95	0.96	10.87	11	Pass
64	5320	3.93	4.14	3.67	4.26	0.96	10.99	11	Pass
100	5500	3.00	2.58	3.48	2.09	0.96	9.80	10.11	Pass
116	5580	2.66	2.49	2.98	4.01	0.96	10.06	10.11	Pass
140	5700	2.00	4.17	4.10	1.30	0.96	10.05	10.11	Pass
144 (U-NII-2C)	5720	1.85	1.88	4.74	2.93	0.96	10.00	10.11	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the power density limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.89-6) = 10.11 dBm/MHz.

### 802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	1.17	0.26	2.15	0.62	0.97	8.10	11	Pass
62	5310	0.84	0.38	1.69	0.68	0.97	7.92	11	Pass
102	5510	0.95	0.28	1.68	1.51	0.97	8.13	10.11	Pass
110	5550	0.64	2.31	2.29	2.45	0.97	8.97	10.11	Pass
134	5670	1.98	0.83	2.48	1.32	0.97	8.69	10.11	Pass
142 (U-NII-2C)	5710	0.59	2.26	1.24	2.38	0.97	8.67	10.11	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the power density limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the power density limit shall be reduced to  $11 - (6.89 - 6) = 10.11$  dBm/MHz.

### 802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-3.22	-3.90	-1.91	-3.27	0.97	3.98	11	Pass
106	5530	-4.06	-1.23	-1.74	-1.62	0.97	4.96	10.11	Pass
122	5610	-3.10	-0.89	-2.06	-1.11	0.97	5.29	10.11	Pass
138 (U-NII-2C)	5690	-1.35	-3.02	-1.32	-0.43	0.97	5.56	10.11	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the power density limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the power density limit shall be reduced to  $11 - (6.89 - 6) = 10.11$  dBm/MHz.

### 802.11ax (HE80+80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42+58(L)	5210	-0.67	-1.51	-	-	0.97	2.91	16.89	Pass
42+58(H)	5290	-	-	0.04	-0.85	0.97	3.60	11	Pass
106+122(L)	5530	-1.60	-1.01	-	-	0.97	2.69	10.11	Pass
106+122(H)	5610	-	-	-1.05	-2.05	0.97	2.46	10.11	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.11 dBi > 6dBi, so the power density limit shall be reduced to  $17-(6.11-6) = 16.89$  dBm/MHz.
- For U-NII-2A, the directional gain is 5.43 dBi < 6 dBi, so the power density limit shall not be reduced.
- For U-NII-2C, the directional gain is 6.89 dBi > 6 dBi, so the power density limit shall be reduced to  $11-(6.89-6) = 10.11$  dBm/MHz.

### 802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3					
144 (U-NII-3)	5720	-2.28	-3.27	-3.56	-2.31	3.2	0.25	5.67	30	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the power density limit shall not be reduced.

### 802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3					
144 (U-NII-3)	5720	-2.70	-3.71	-2.23	-3.21	3.09	0.96	6.27	30	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the power density limit shall not be reduced.

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3					
142 (U-NII-3)	5710	-4.73	-4.63	-4.15	-4.63	1.49	0.97	4.68	30	Pass

**Notes:**

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the power density limit shall not be reduced.

**802.11ax (HE80)**

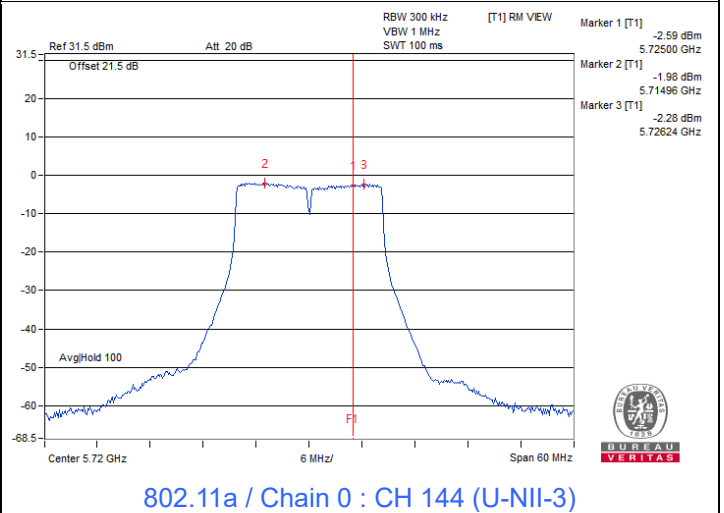
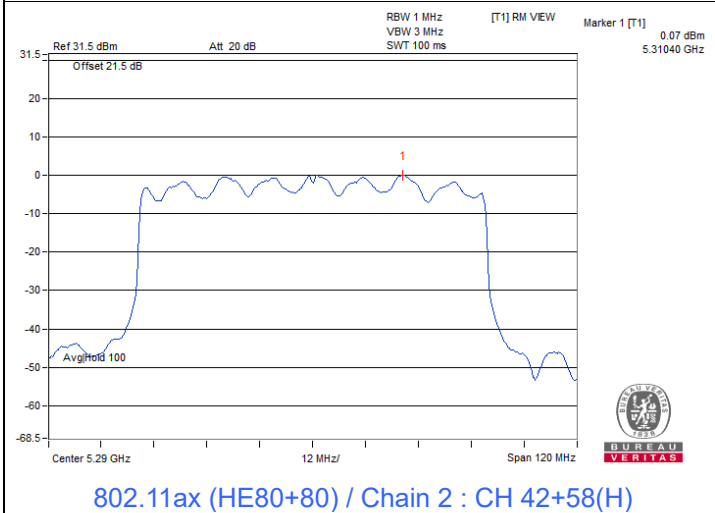
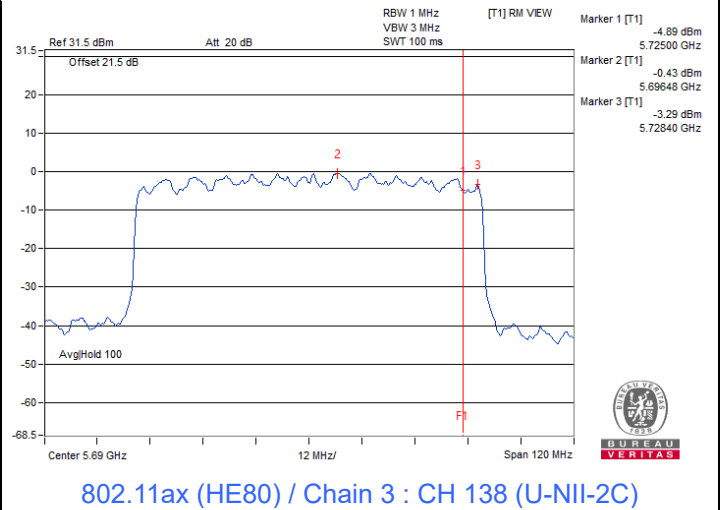
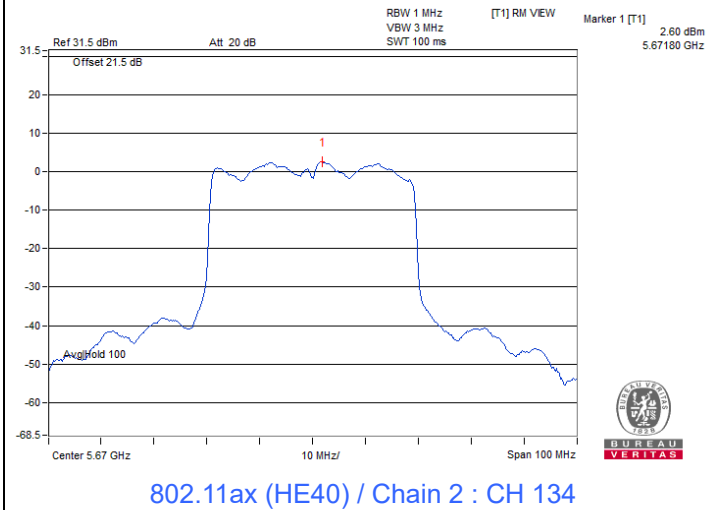
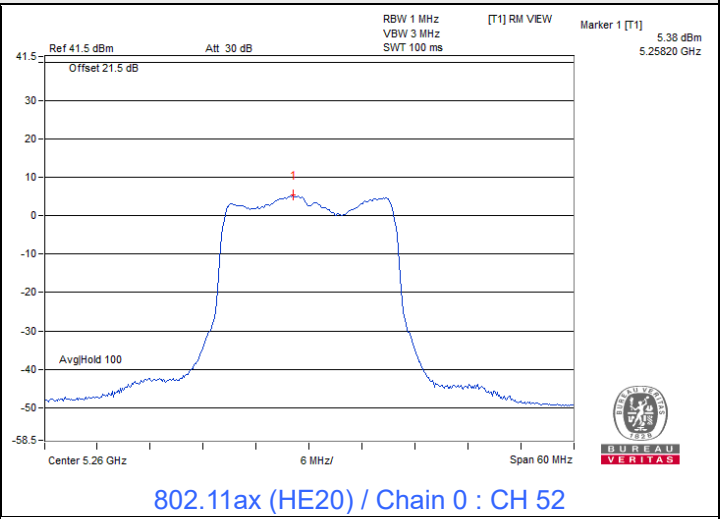
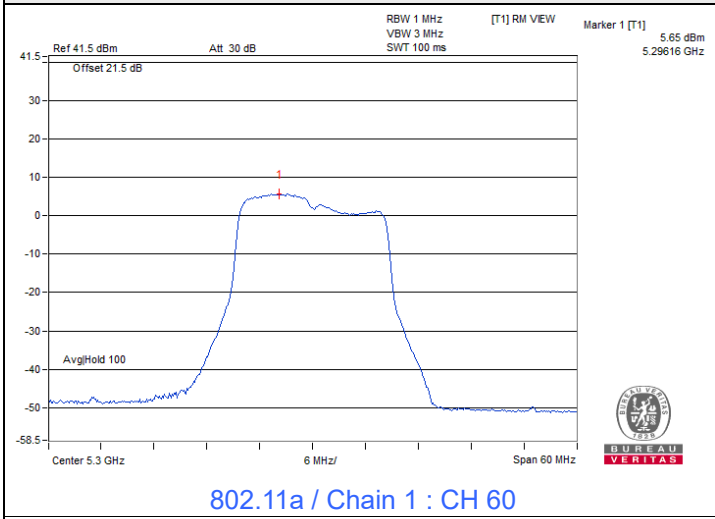
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3					
138 (U-NII-3)	5690	-8.74	-7.87	-8.01	-8.90	-2.34	0.97	0.85	30	Pass

**Notes:**

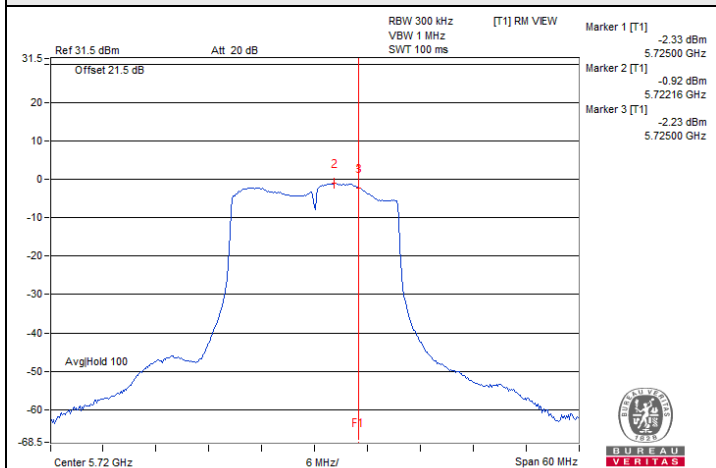
1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 4.94 dBi < 6 dBi, so the power density limit shall not be reduced.



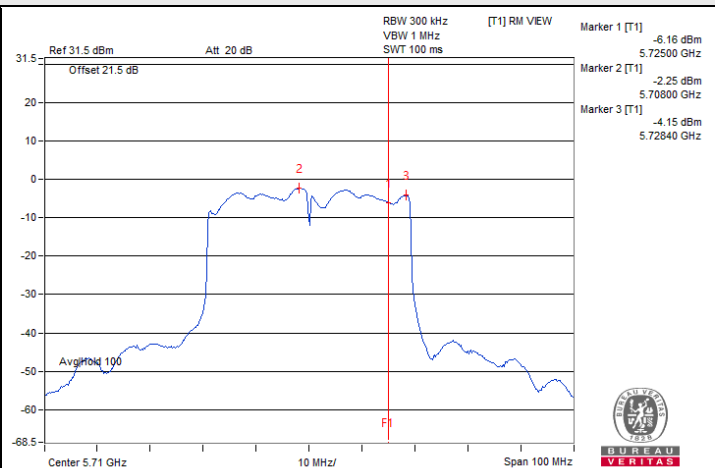
### Spectrum Plot of Maximum Value



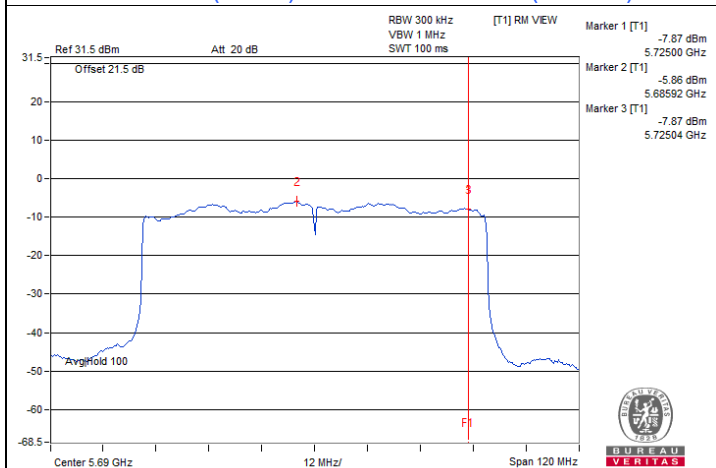
### Spectrum Plot of Maximum Value



802.11ax (HE20) / Chain 2 : CH 144 (U-NII-3)



802.11ax (HE40) / Chain 2 : CH 142 (U-NII-3)



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

#### 7.4 6 dB Bandwidth

Input Power:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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##### 802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	2.72	2.70	2.51	3.09	0.5	Pass

##### 802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	4.43	4.39	4.16	4.36	0.5	Pass

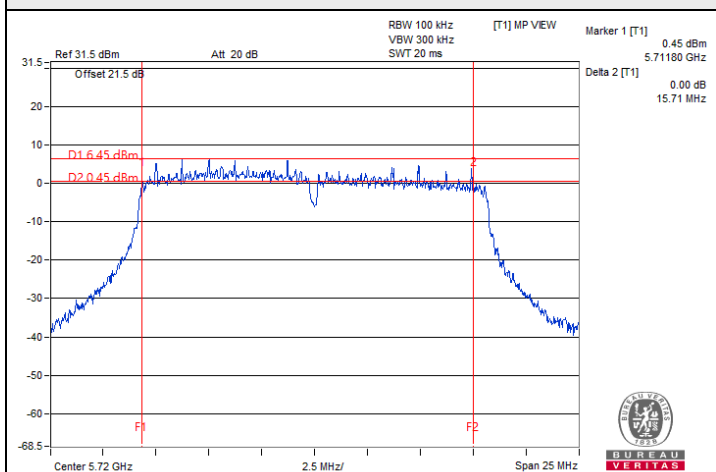
##### 802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
142 (U-NII-3)	5710	3.57	3.71	3.51	2.87	0.5	Pass

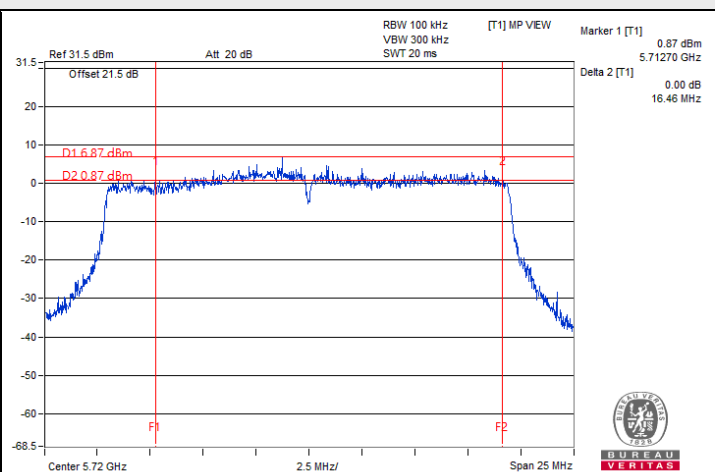
##### 802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
138 (U-NII-3)	5690	3.23	2.84	3.80	3.94	0.5	Pass

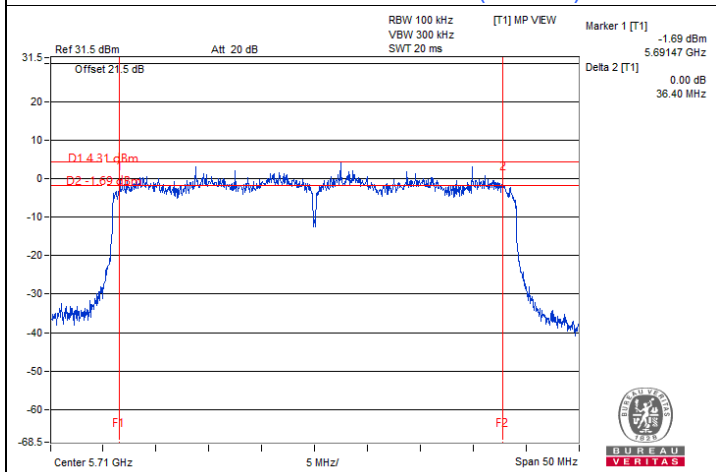
### Spectrum Plot of Minimum Value



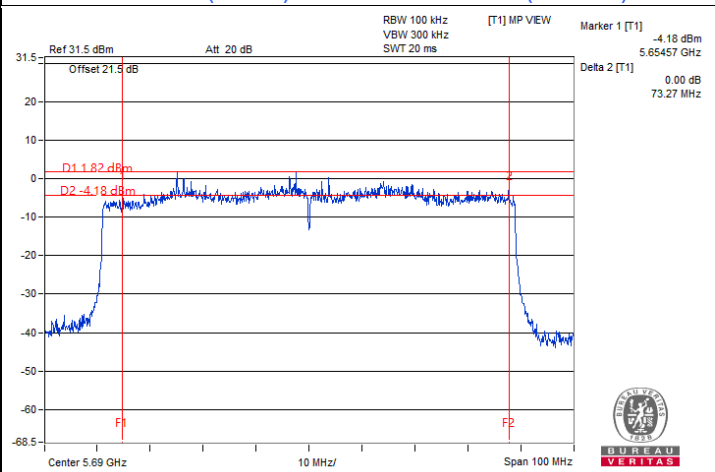
802.11a / Chain 2 : CH 144 (U-NII-3)



802.11ax (HE20) / Chain 2 : CH 144 (U-NII-3)



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



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

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



## 7.5 Occupied Bandwidth

Input Power:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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### 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	16.56	16.50	16.26	16.50
60	5300	16.32	16.38	16.56	16.38
64	5320	16.56	16.38	16.26	16.50
100	5500	16.50	16.56	16.32	16.38
116	5580	16.50	16.56	16.56	16.50
140	5700	16.50	16.38	16.38	16.44
144 (U-NII-2C)	5720	13.22	13.34	13.28	13.28
144 (U-NII-3)	5720	3.10	3.10	3.04	3.16

### 802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	18.78	18.90	18.96	18.96
60	5300	18.78	18.96	18.78	18.78
64	5320	18.72	18.90	18.96	18.96
100	5500	18.96	19.02	18.96	18.96
116	5580	18.90	19.02	18.66	18.96
140	5700	18.90	18.90	18.90	19.02
144 (U-NII-2C)	5720	14.54	14.54	14.54	14.60
144 (U-NII-3)	5720	4.42	4.42	4.48	4.48

### 802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	37.92	37.80	38.04	37.92
62	5310	38.04	37.80	38.16	38.04
102	5510	37.92	38.04	37.68	37.80
110	5550	37.80	38.16	38.04	38.04
134	5670	37.92	37.92	37.92	38.04
142 (U-NII-2C)	5710	33.96	33.84	34.08	33.96
142 (U-NII-3)	5710	3.84	3.84	3.84	3.96

**802.11ax (HE80)**

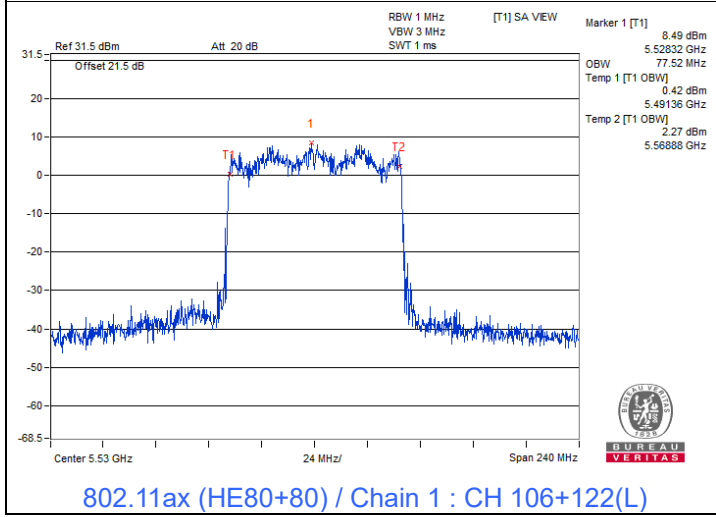
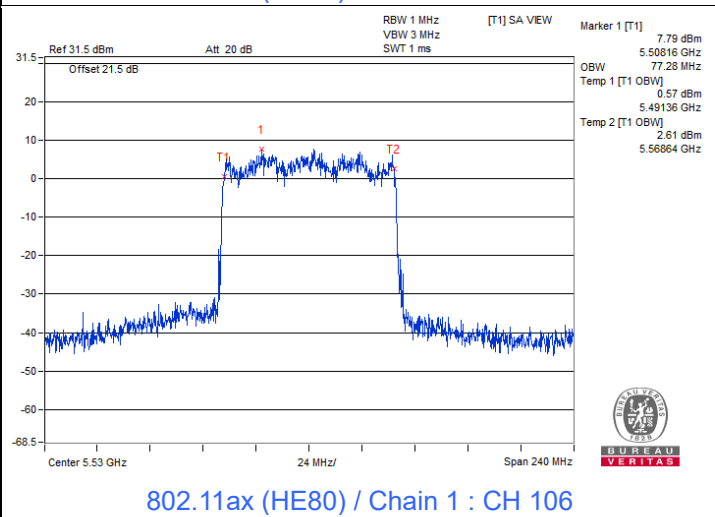
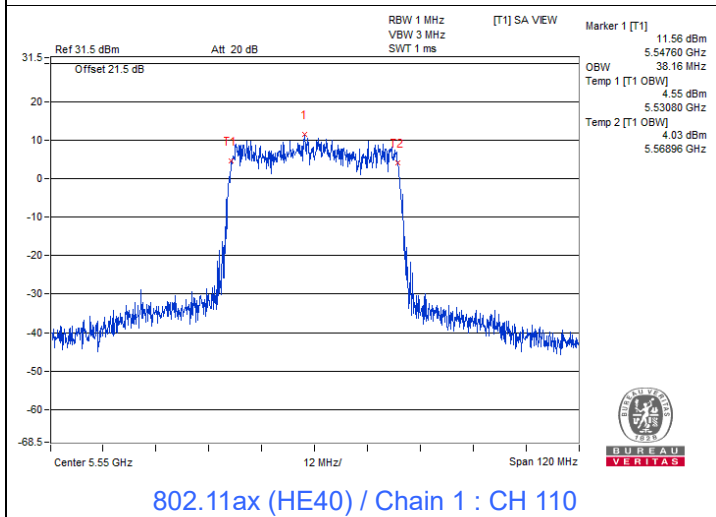
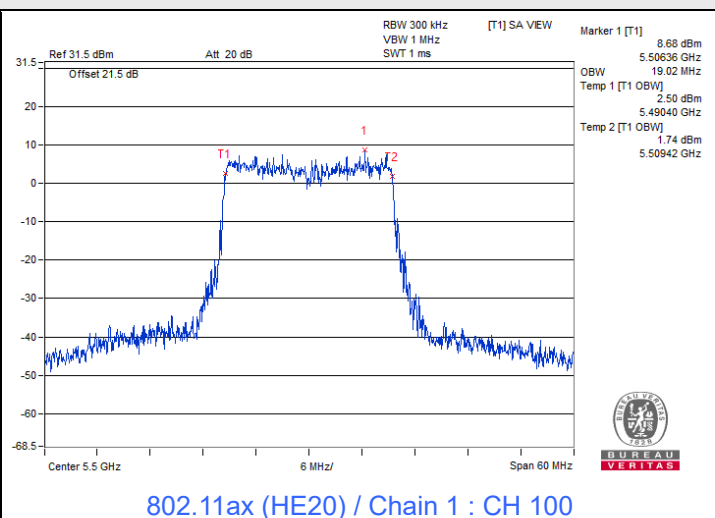
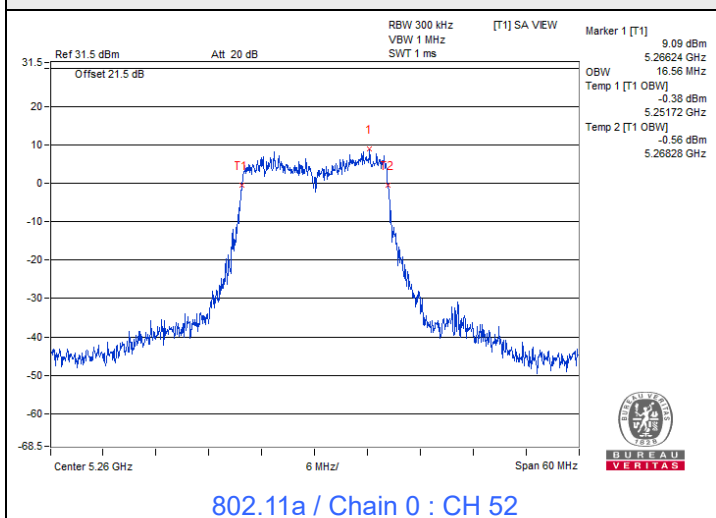
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	77.04	76.80	77.28	77.28
106	5530	76.80	77.28	77.28	77.04
122	5610	77.04	77.04	77.04	76.80
138 (U-NII-2C)	5690	73.64	73.40	73.88	73.64
138 (U-NII-3)	5690	3.40	3.40	3.40	3.88

**802.11ax (HE80+80)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42+58(L)	5210	76.80	76.56	-	-
42+58(H)	5290	-	-	77.52	76.80
106+122(L)	5530	77.04	77.52	-	-
106+122(H)	5610	-	-	77.04	77.04



### Spectrum Plot of Maximum Value



## 7.6 Frequency Stability

Input Power:	12 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko
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### 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	12	5259.9773	Pass	5259.9814	Pass	5259.9783	Pass	5259.9773	Pass
30	12	5260.0162	Pass	5260.0172	Pass	5260.0207	Pass	5260.0207	Pass
20	12	5260.0118	Pass	5260.0146	Pass	5260.0116	Pass	5260.0128	Pass
10	12	5260.0233	Pass	5260.0251	Pass	5260.0236	Pass	5260.0241	Pass
0	12	5259.9878	Pass	5259.9875	Pass	5259.9834	Pass	5259.9852	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	13.8	5260.0126	Pass	5260.0096	Pass	5260.012	Pass	5260.0126	Pass
	12	5260.0118	Pass	5260.0146	Pass	5260.0116	Pass	5260.0128	Pass
	10.2	5260.016	Pass	5260.0163	Pass	5260.0178	Pass	5260.02	Pass

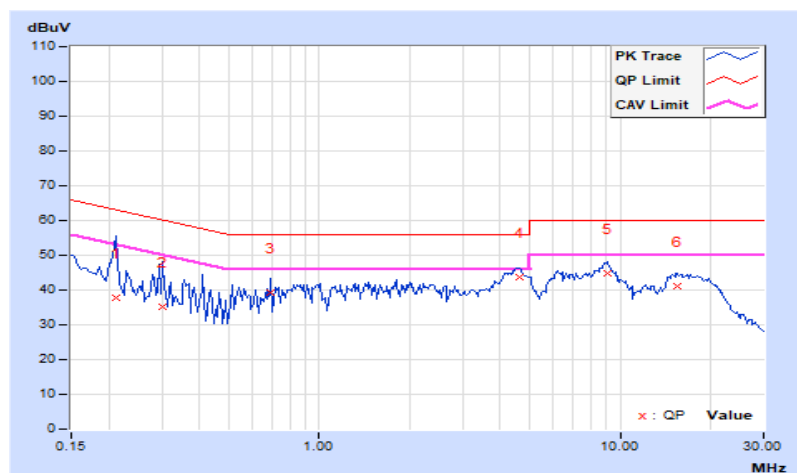
## 7.7 AC Power Conducted Emissions

<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 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 (System)</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 71% RH
<b>Tested By</b>	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	0.21250	9.93	27.91	7.32	37.84	17.25	63.11	53.11	-25.27	-35.86
2	0.30234	9.94	25.09	23.79	35.03	33.73	60.18	50.18	-25.15	-16.45
<b>3</b>	<b>0.68906</b>	<b>9.96</b>	<b>29.34</b>	<b>27.38</b>	<b>39.30</b>	<b>37.34</b>	<b>56.00</b>	<b>46.00</b>	<b>-16.70</b>	<b>-8.66</b>
<b>4</b>	<b>4.62500</b>	<b>10.16</b>	<b>33.52</b>	<b>27.18</b>	<b>43.68</b>	<b>37.34</b>	<b>56.00</b>	<b>46.00</b>	<b>-12.32</b>	<b>-8.66</b>
5	9.14063	10.42	34.26	27.84	44.68	38.26	60.00	50.00	-15.32	-11.74
6	15.52734	10.85	30.31	25.61	41.16	36.46	60.00	50.00	-18.84	-13.54

### 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

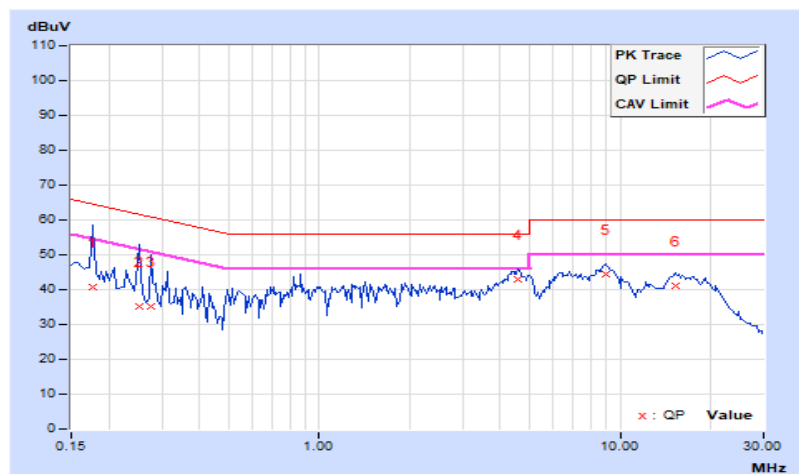


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	150 kHz ~ 30 MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
<b>Input Power (System)</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 71% RH
<b>Tested By</b>	Sampson 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	0.17734	9.99	30.75	21.60	40.74	31.59	64.61	54.61	-23.87	-23.02
2	0.25156	9.99	25.13	19.88	35.12	29.87	61.71	51.71	-26.59	-21.84
3	0.27500	9.99	25.08	22.78	35.07	32.77	60.97	50.97	-25.90	-18.20
4	4.57422	10.18	32.96	26.91	43.14	37.09	56.00	46.00	-12.86	-8.91
5	8.96094	10.37	34.09	27.75	44.46	38.12	60.00	50.00	-15.54	-11.88
6	15.29688	10.68	30.31	25.68	40.99	36.36	60.00	50.00	-19.01	-13.64

**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

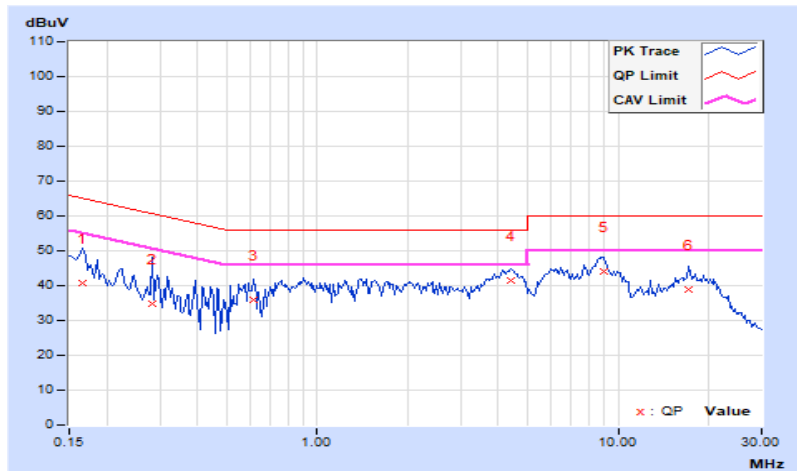


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	150 kHz ~ 30 MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 66% RH
<b>Tested By</b>	Sampson Chen		

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	0.16562	9.93	30.80	13.06	40.73	22.99	65.18	55.18	-24.45	-32.19
2	0.28281	9.93	25.04	3.15	34.97	13.08	60.73	50.73	-25.76	-37.65
3	0.61094	9.95	26.01	22.83	35.96	32.78	56.00	46.00	-20.04	-13.22
4	4.42578	10.14	31.21	25.36	41.35	35.50	56.00	46.00	-14.65	-10.50
5	8.96875	10.41	33.83	28.38	44.24	38.79	60.00	50.00	-15.76	-11.21
6	17.25391	10.96	27.84	23.40	38.80	34.36	60.00	50.00	-21.20	-15.64

**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

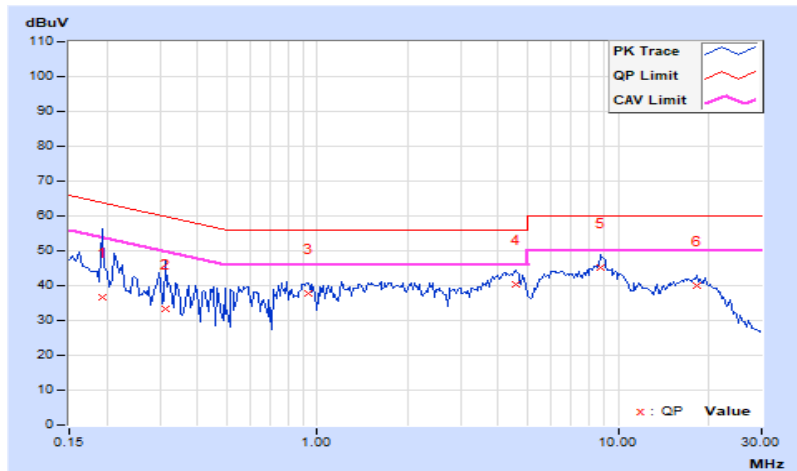


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	150 kHz ~ 30 MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 66% RH
<b>Tested By</b>	Sampson Chen		

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	0.19297	9.99	26.70	15.77	36.69	25.76	63.91	53.91	-27.22	-28.15
2	0.31406	10.00	23.20	17.88	33.20	27.88	59.86	49.86	-26.66	-21.98
3	0.93125	10.03	27.64	25.86	37.67	35.89	56.00	46.00	-18.33	-10.11
4	4.56250	10.18	30.37	24.35	40.55	34.53	56.00	46.00	-15.45	-11.47
5	8.77344	10.37	34.64	28.82	45.01	39.19	60.00	50.00	-14.99	-10.81
6	18.24609	10.80	29.38	24.57	40.18	35.37	60.00	50.00	-19.82	-14.63

**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





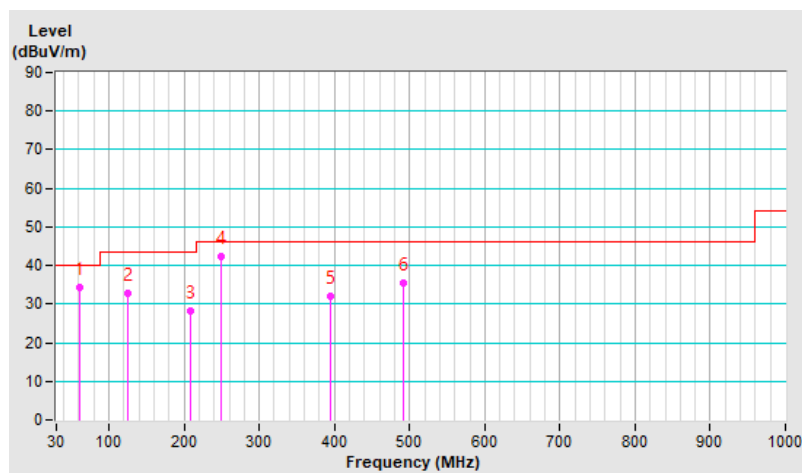
## 7.8 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE20)	Channel	CH 52 : 5260 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	28°C, 76% RH
Tested By	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	60.21	34.3 QP	40.0	-5.7	1.50 H	156	47.6	-13.3
2	124.99	32.7 QP	43.5	-10.8	1.50 H	65	46.9	-14.2
3	208.46	28.3 QP	43.5	-15.2	1.00 H	305	44.2	-15.9
<b>4</b>	<b>250.09</b>	<b>42.3 QP</b>	<b>46.0</b>	<b>-3.7</b>	<b>1.50 H</b>	<b>237</b>	<b>55.7</b>	<b>-13.4</b>
5	395.06	31.9 QP	46.0	-14.1	1.50 H	75	41.2	-9.3
6	492.05	35.3 QP	46.0	-10.7	1.50 H	166	42.2	-6.9

### Remarks:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- Margin value = Emission Level – Limit value
- The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- 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.

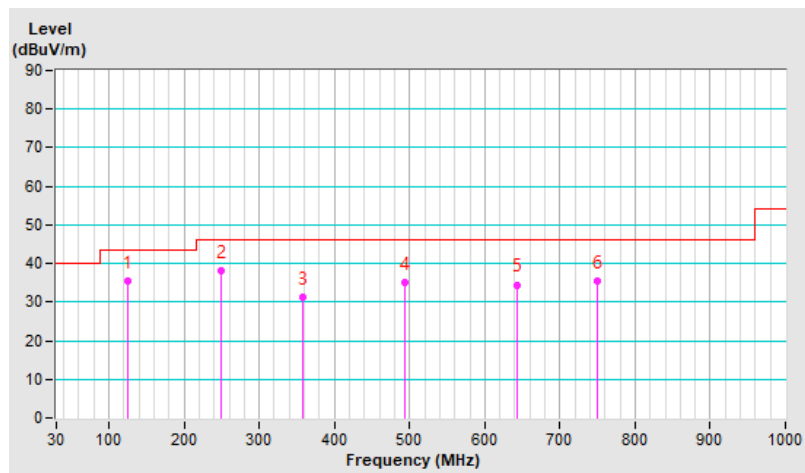


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	QP: RB=120kHz, DET=Quasi-Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	28°C, 76% RH
<b>Tested By</b>	Sampson Chen		

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	125.07	35.6 QP	43.5	-7.9	1.00 V	333	49.8	-14.2
2	249.94	38.2 QP	46.0	-7.8	1.50 V	165	51.6	-13.4
3	358.06	31.2 QP	46.0	-14.8	1.50 V	305	41.2	-10.0
4	494.06	35.2 QP	46.0	-10.8	1.50 V	269	42.0	-6.8
5	643.04	34.5 QP	46.0	-11.5	1.50 V	333	37.9	-3.4
6	750.08	35.4 QP	46.0	-10.6	1.50 V	155	36.7	-1.3

**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 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.

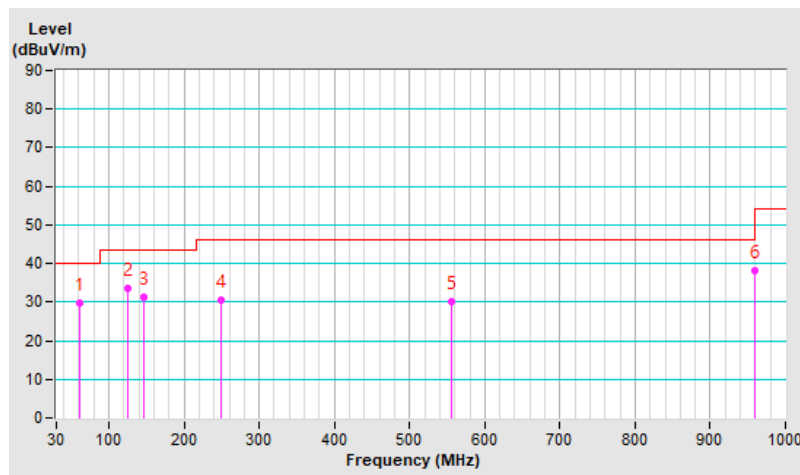


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	QP: RB=120kHz, DET=Quasi-Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 63% RH
<b>Tested By</b>	Sampson Chen		

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	61.23	29.8 QP	40.0	-10.2	2.00 H	351	43.6	-13.8
2	125.05	33.5 QP	43.5	-10.0	1.50 H	284	48.0	-14.5
3	146.70	31.2 QP	43.5	-12.3	1.00 H	80	44.0	-12.8
4	250.04	30.6 QP	46.0	-15.4	1.50 H	295	44.7	-14.1
5	555.96	30.2 QP	46.0	-15.8	2.00 H	285	36.7	-6.5
6	960.04	38.0 QP	54.0	-16.0	1.50 H	145	37.6	0.4

**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 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.

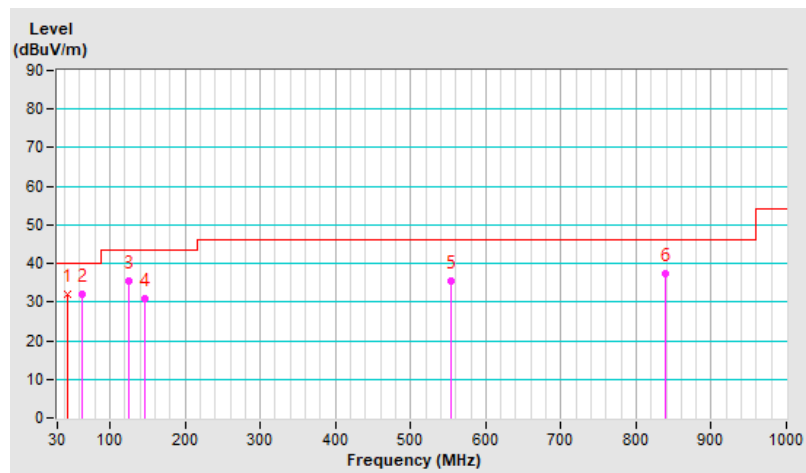


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	QP: RB=120kHz, DET=Quasi-Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 63% RH
<b>Tested By</b>	Sampson Chen		

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	43.46	32.1 QP	40.0	-7.9	1.50 V	360	45.1	-13.0
2	63.00	31.9 QP	40.0	-8.1	1.50 V	174	45.6	-13.7
3	125.01	35.3 QP	43.5	-8.2	1.00 V	230	49.8	-14.5
4	146.28	30.7 QP	43.5	-12.8	1.00 V	147	43.6	-12.9
5	553.58	35.5 QP	46.0	-10.5	1.00 V	73	42.0	-6.5
6	838.08	37.3 QP	46.0	-8.7	1.00 V	332	38.9	-1.6

**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.



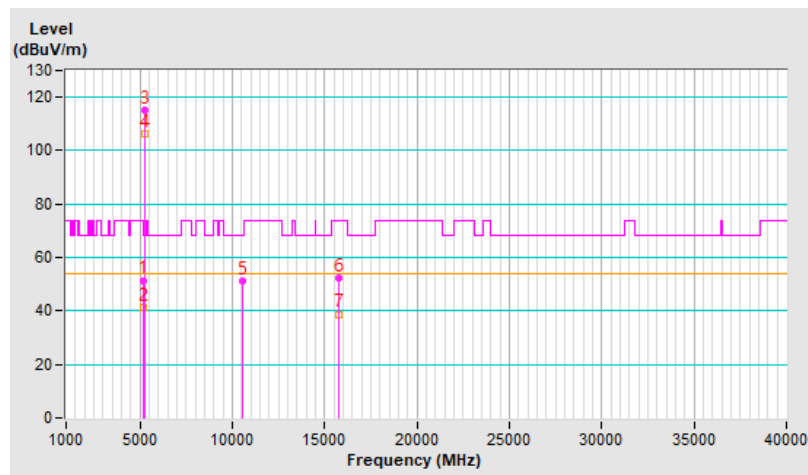
### 7.9 Unwanted Emissions above 1 GHz

<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=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% 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	5150.00	51.5 PK	74.0	-22.5	1.68 H	68	48.4	3.1
2	5150.00	41.1 AV	54.0	-12.9	1.68 H	68	38.0	3.1
3	*5260.00	114.9 PK			1.68 H	68	112.5	2.4
4	*5260.00	106.3 AV			1.68 H	68	103.9	2.4
5	#10520.00	51.1 PK	68.2	-17.1	1.38 H	139	39.3	11.8
6	15780.00	52.4 PK	74.0	-21.6	3.94 H	218	40.3	12.1
7	15780.00	38.8 AV	54.0	-15.2	3.94 H	218	26.7	12.1

**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.

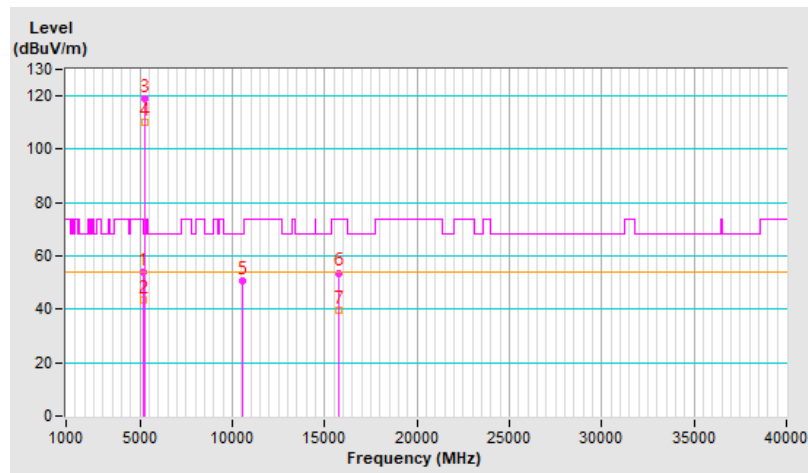


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	5150.00	54.0 PK	74.0	-20.0	1.50 V	22	50.9	3.1
2	5150.00	43.7 AV	54.0	-10.3	1.50 V	22	40.6	3.1
3	*5260.00	119.1 PK			1.50 V	22	116.7	2.4
4	*5260.00	110.2 AV			1.50 V	22	107.8	2.4
5	#10520.00	50.6 PK	68.2	-17.6	1.46 V	114	38.8	11.8
6	15780.00	53.7 PK	74.0	-20.3	3.59 V	226	41.6	12.1
7	15780.00	39.5 AV	54.0	-14.5	3.59 V	226	27.4	12.1

**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.



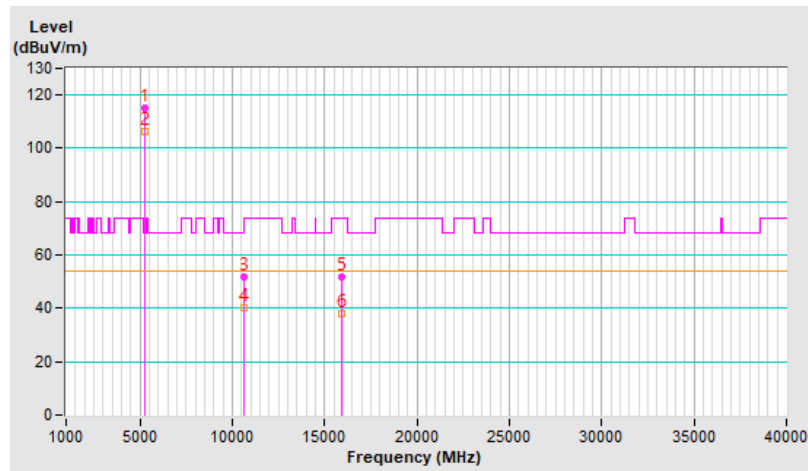
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5300.00	115.1 PK			1.66 H	74	112.7	2.4
2	*5300.00	106.5 AV			1.66 H	74	104.1	2.4
3	10600.00	51.6 PK	74.0	-22.4	1.38 H	142	39.8	11.8
4	10600.00	40.1 AV	54.0	-13.9	1.38 H	142	28.3	11.8
5	15900.00	52.0 PK	74.0	-22.0	3.85 H	197	40.4	11.6
6	15900.00	38.2 AV	54.0	-15.8	3.85 H	197	26.6	11.6

**Remarks:**

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



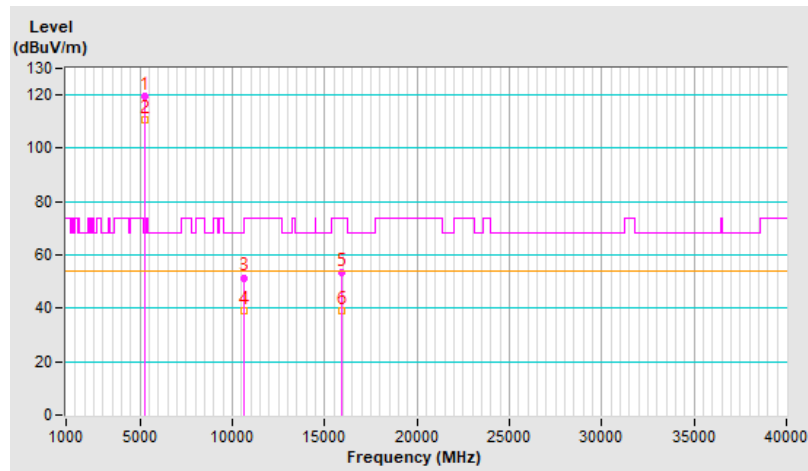
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5300.00	119.3 PK			1.51 V	36	116.9	2.4
2	*5300.00	110.6 AV			1.51 V	36	108.2	2.4
3	10600.00	51.5 PK	74.0	-22.5	1.53 V	120	39.7	11.8
4	10600.00	39.3 AV	54.0	-14.7	1.53 V	120	27.5	11.8
5	15900.00	53.6 PK	74.0	-20.4	3.60 V	250	42.0	11.6
6	15900.00	39.3 AV	54.0	-14.7	3.60 V	250	27.7	11.6

**Remarks:**

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





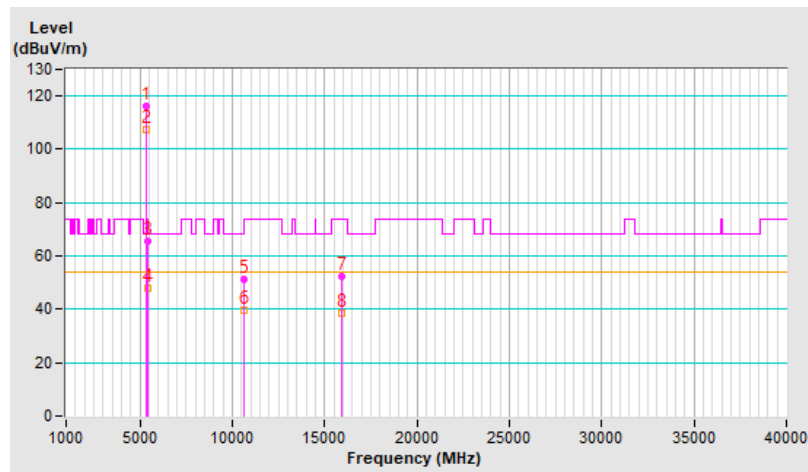
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5320.00	116.2 PK			2.75 H	276	113.6	2.6
2	*5320.00	107.3 AV			2.75 H	276	104.7	2.6
3	5395.06	65.3 PK	74.0	-8.7	2.75 H	276	62.3	3.0
4	5395.06	48.0 AV	54.0	-6.0	2.75 H	276	45.0	3.0
5	10640.00	51.1 PK	74.0	-22.9	1.36 H	129	39.2	11.9
6	10640.00	39.8 AV	54.0	-14.2	1.36 H	129	27.9	11.9
7	15960.00	52.2 PK	74.0	-21.8	3.90 H	207	40.7	11.5
8	15960.00	38.4 AV	54.0	-15.6	3.90 H	207	26.9	11.5

**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.

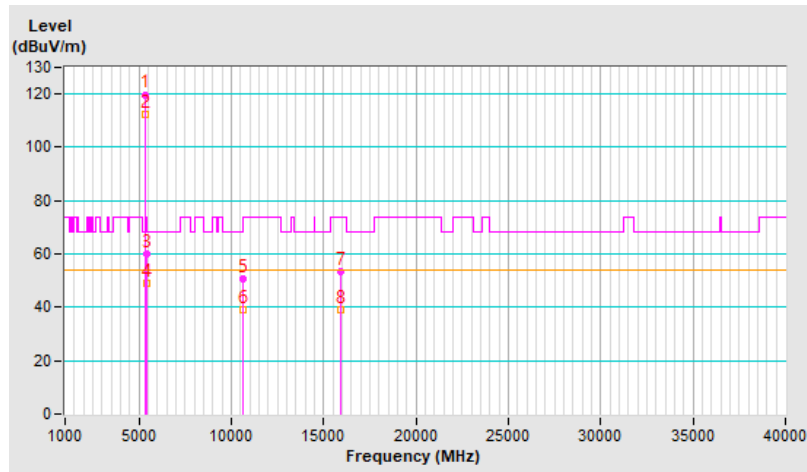


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5320.00	119.8 PK			1.64 V	62	117.2	2.6
2	*5320.00	112.5 AV			1.64 V	62	109.9	2.6
3	5395.06	60.0 PK	74.0	-14.0	1.64 V	62	57.0	3.0
4	5395.06	49.2 AV	54.0	-4.8	1.64 V	62	46.2	3.0
5	10640.00	50.9 PK	74.0	-23.1	1.50 V	119	39.0	11.9
6	10640.00	38.9 AV	54.0	-15.1	1.50 V	119	27.0	11.9
7	15960.00	53.5 PK	74.0	-20.5	3.57 V	238	42.0	11.5
8	15960.00	39.1 AV	54.0	-14.9	3.57 V	238	27.6	11.5

**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.



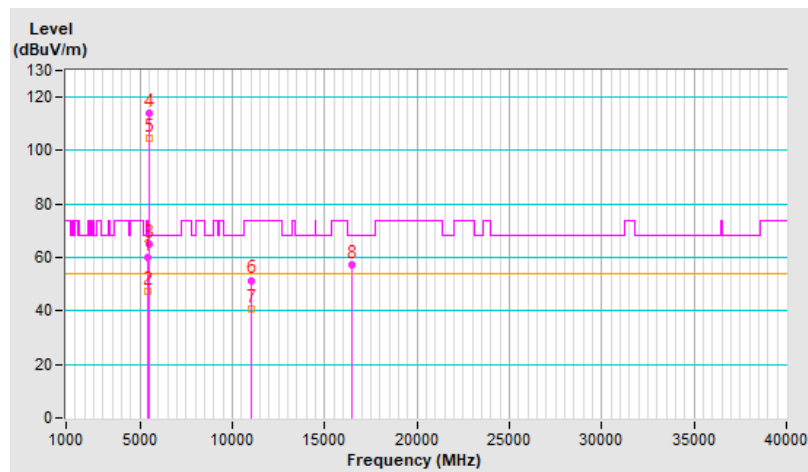
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	5460.00	60.0 PK	74.0	-14.0	1.61 H	225	57.0	3.0
2	5460.00	47.2 AV	54.0	-6.8	1.61 H	225	44.2	3.0
3	#5470.00	65.2 PK	68.2	-3.0	1.61 H	225	62.2	3.0
4	*5500.00	114.1 PK			1.61 H	225	111.2	2.9
5	*5500.00	104.8 AV			1.61 H	225	101.9	2.9
6	11000.00	51.5 PK	74.0	-22.5	1.50 H	102	39.0	12.5
7	11000.00	40.6 AV	54.0	-13.4	1.50 H	102	28.1	12.5
8	#16500.00	57.4 PK	68.2	-10.8	1.80 H	66	42.9	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.

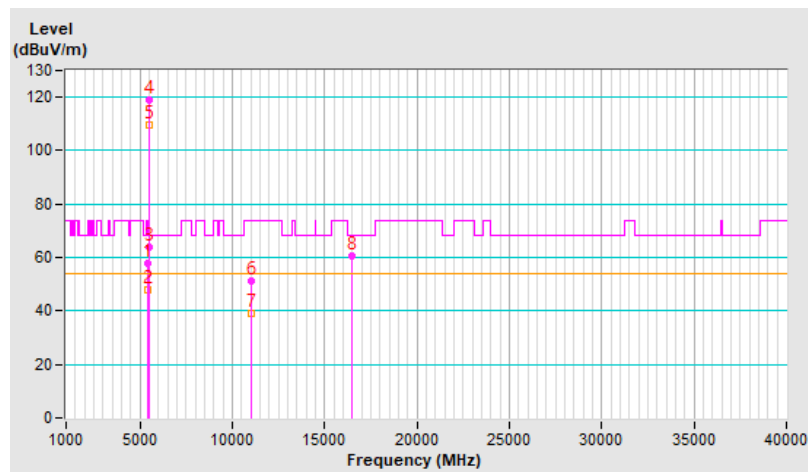


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	5460.00	57.8 PK	74.0	-16.2	1.46 V	120	54.8	3.0
2	5460.00	48.1 AV	54.0	-5.9	1.46 V	120	45.1	3.0
3	#5470.00	63.9 PK	68.2	-4.3	1.46 V	120	60.9	3.0
4	*5500.00	119.1 PK			1.46 V	120	116.2	2.9
5	*5500.00	109.4 AV			1.46 V	120	106.5	2.9
6	11000.00	51.2 PK	74.0	-22.8	1.50 V	133	38.7	12.5
7	11000.00	39.3 AV	54.0	-14.7	1.50 V	133	26.8	12.5
8	#16500.00	60.7 PK	68.2	-7.5	1.76 V	68	46.2	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.



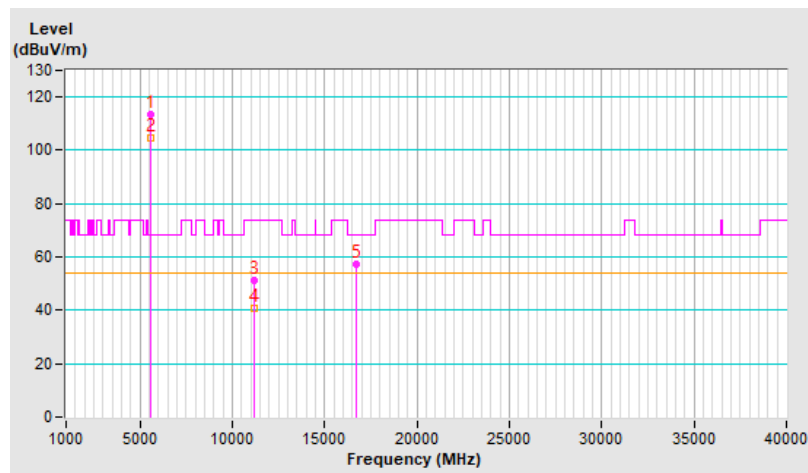
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5580.00	113.7 PK			1.64 H	225	110.8	2.9
2	*5580.00	104.7 AV			1.64 H	225	101.8	2.9
3	11160.00	51.4 PK	74.0	-22.6	1.44 H	106	39.2	12.2
4	11160.00	40.7 AV	54.0	-13.3	1.44 H	106	28.5	12.2
5	#16740.00	57.1 PK	68.2	-11.1	1.84 H	79	42.5	14.6

**Remarks:**

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

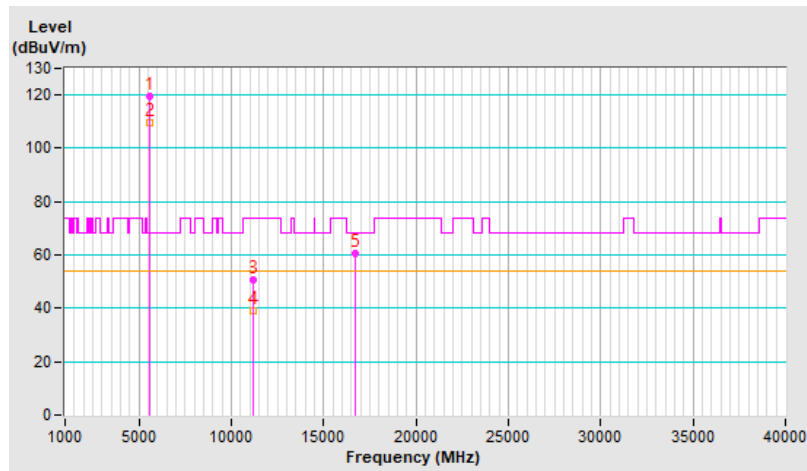


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5580.00	119.3 PK			1.40 V	120	116.4	2.9
2	*5580.00	109.8 AV			1.40 V	120	106.9	2.9
3	11160.00	50.9 PK	74.0	-23.1	1.47 V	146	38.7	12.2
4	11160.00	39.0 AV	54.0	-15.0	1.47 V	146	26.8	12.2
5	#16740.00	60.8 PK	68.2	-7.4	1.77 V	80	46.2	14.6

**Remarks:**

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



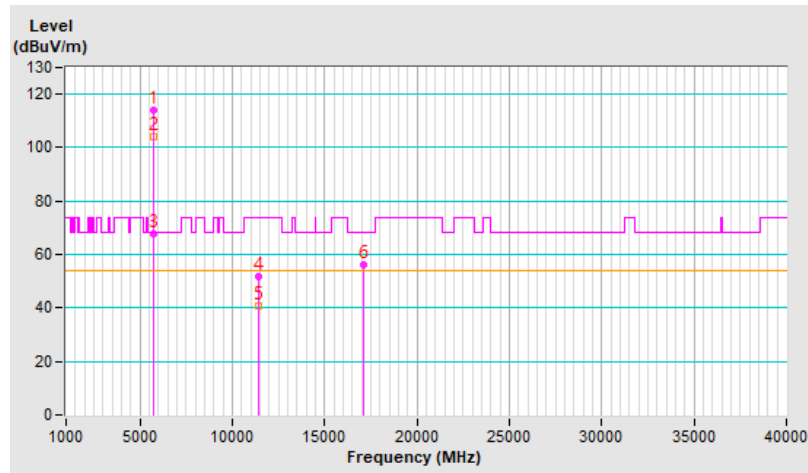
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5700.00	113.8 PK			1.50 H	190	110.6	3.2
2	*5700.00	104.0 AV			1.50 H	190	100.8	3.2
3	#5725.00	67.8 PK	68.2	-0.4	1.50 H	190	64.4	3.4
4	11400.00	51.7 PK	74.0	-22.3	1.43 H	90	39.4	12.3
5	11400.00	40.7 AV	54.0	-13.3	1.43 H	90	28.4	12.3
6	#17100.00	56.2 PK	68.2	-12.0	1.89 H	93	39.0	17.2

**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.

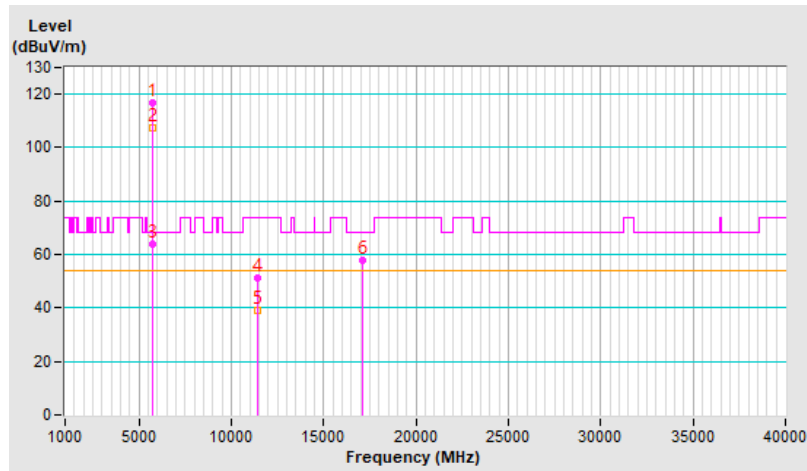


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	*5700.00	117.0 PK			1.42 V	47	113.8	3.2
2	*5700.00	107.5 AV			1.42 V	47	104.3	3.2
3	#5725.00	63.7 PK	68.2	-4.5	1.42 V	47	60.3	3.4
4	11400.00	51.2 PK	74.0	-22.8	1.48 V	142	38.9	12.3
5	11400.00	39.3 AV	54.0	-14.7	1.48 V	142	27.0	12.3
6	#17100.00	58.0 PK	68.2	-10.2	1.83 V	48	40.8	17.2

**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.





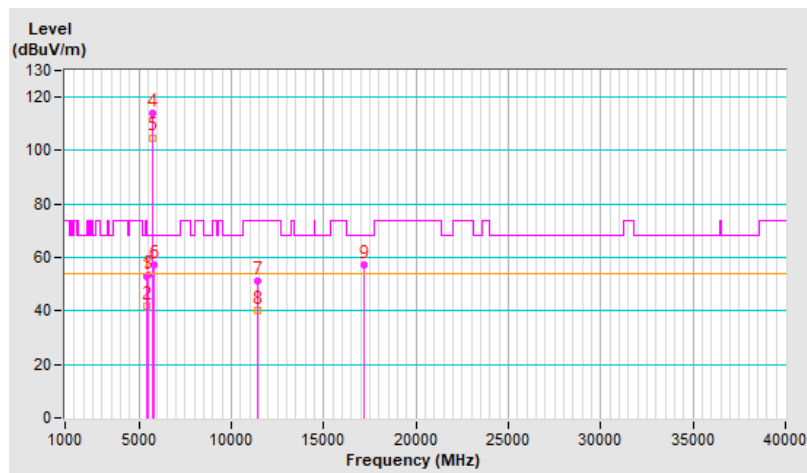
<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	5460.00	52.9 PK	74.0	-21.1	1.65 H	217	49.9	3.0
2	5460.00	41.9 AV	54.0	-12.1	1.65 H	217	38.9	3.0
3	#5470.00	53.4 PK	68.2	-14.8	1.65 H	217	50.4	3.0
4	*5720.00	114.0 PK			1.65 H	217	110.7	3.3
5	*5720.00	104.9 AV			1.65 H	217	101.6	3.3
6	#5850.00	57.2 PK	68.2	-11.0	1.65 H	217	53.4	3.8
7	11440.00	51.2 PK	74.0	-22.8	1.50 H	116	38.8	12.4
8	11440.00	40.2 AV	54.0	-13.8	1.50 H	116	27.8	12.4
9	#17160.00	57.5 PK	68.2	-10.7	1.79 H	77	40.4	17.1

**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.

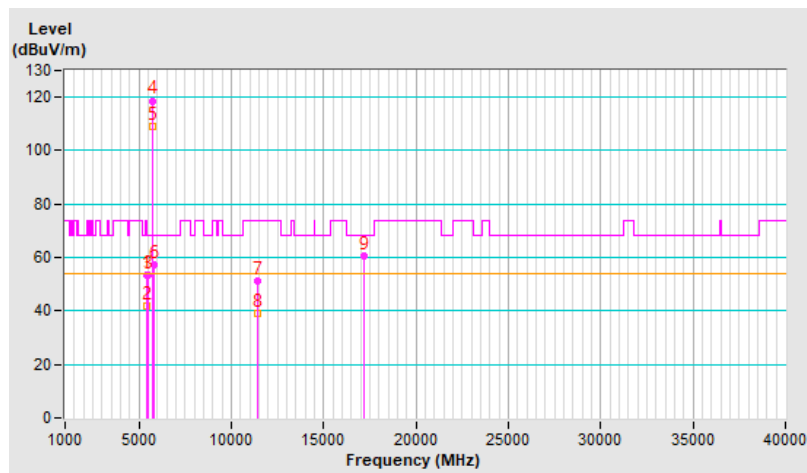


<b>RF Mode</b>	802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	Sampson 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	5460.00	53.4 PK	74.0	-20.6	1.42 V	133	50.4	3.0
2	5460.00	42.0 AV	54.0	-12.0	1.42 V	133	39.0	3.0
3	#5470.00	53.4 PK	68.2	-14.8	1.42 V	133	50.4	3.0
4	*5720.00	118.7 PK			1.42 V	133	115.4	3.3
5	*5720.00	109.2 AV			1.42 V	133	105.9	3.3
6	#5850.00	57.1 PK	68.2	-11.1	1.42 V	133	53.3	3.8
7	11440.00	51.2 PK	74.0	-22.8	1.46 V	129	38.8	12.4
8	11440.00	39.3 AV	54.0	-14.7	1.46 V	129	26.9	12.4
9	#17160.00	60.6 PK	68.2	-7.6	1.72 V	73	43.5	17.1

**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.

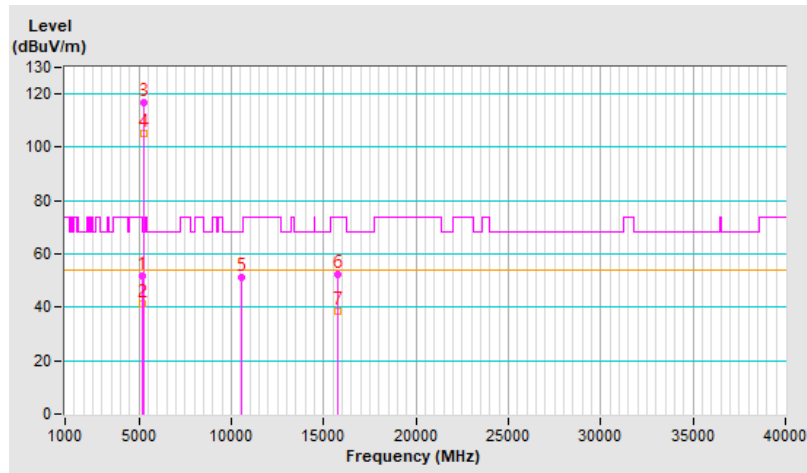


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5150.00	51.9 PK	74.0	-22.1	2.05 H	160	48.8	3.1
2	5150.00	41.2 AV	54.0	-12.8	2.05 H	160	38.1	3.1
3	*5260.00	116.8 PK			2.05 H	160	114.4	2.4
4	*5260.00	105.1 AV			2.05 H	160	102.7	2.4
5	#10520.00	51.0 PK	68.2	-17.2	1.36 H	150	39.2	11.8
6	15780.00	52.3 PK	74.0	-21.7	3.93 H	212	40.2	12.1
7	15780.00	38.6 AV	54.0	-15.4	3.93 H	212	26.5	12.1

**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.

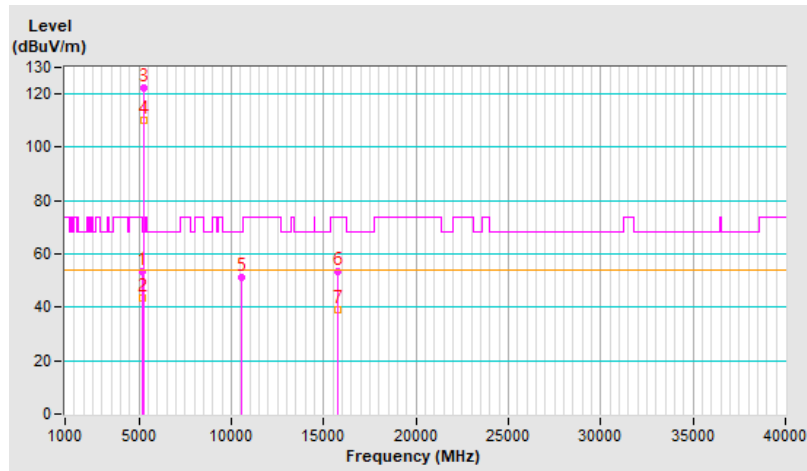


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5150.00	53.4 PK	74.0	-20.6	1.53 V	129	50.3	3.1
2	5150.00	43.5 AV	54.0	-10.5	1.53 V	129	40.4	3.1
3	*5260.00	122.3 PK			1.53 V	129	119.9	2.4
4	*5260.00	110.0 AV			1.53 V	129	107.6	2.4
5	#10520.00	51.0 PK	68.2	-17.2	1.53 V	109	39.2	11.8
6	15780.00	53.5 PK	74.0	-20.5	3.52 V	253	41.4	12.1
7	15780.00	39.1 AV	54.0	-14.9	3.52 V	253	27.0	12.1

**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.



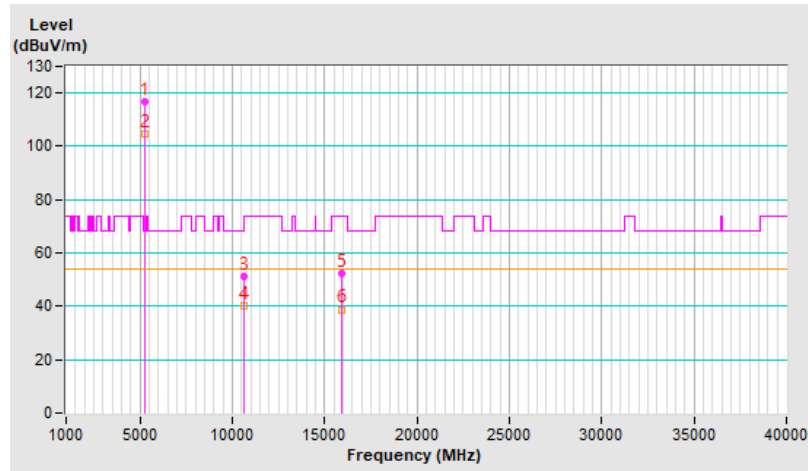
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5300.00	116.7 PK			2.07 H	165	114.3	2.4
2	*5300.00	104.7 AV			2.07 H	165	102.3	2.4
3	10600.00	51.4 PK	74.0	-22.6	1.37 H	150	39.6	11.8
4	10600.00	40.1 AV	54.0	-13.9	1.37 H	150	28.3	11.8
5	15900.00	52.1 PK	74.0	-21.9	3.90 H	222	40.5	11.6
6	15900.00	38.8 AV	54.0	-15.2	3.90 H	222	27.2	11.6

**Remarks:**

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

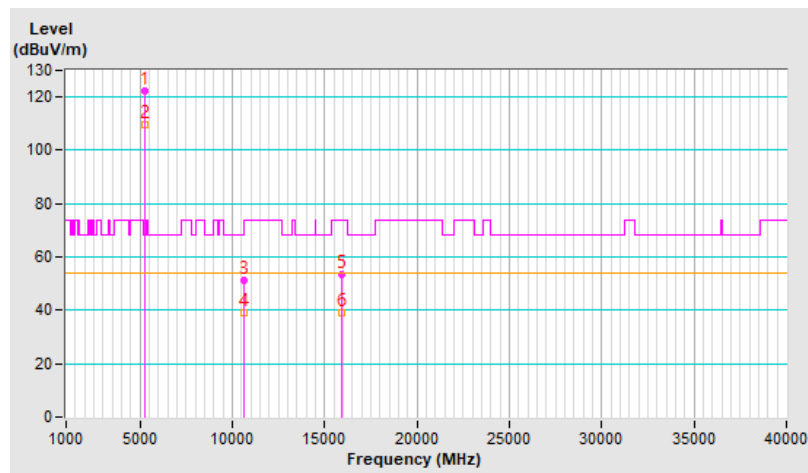


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5300.00	122.1 PK			1.48 V	137	119.7	2.4
2	*5300.00	109.8 AV			1.48 V	137	107.4	2.4
3	10600.00	51.2 PK	74.0	-22.8	1.53 V	110	39.4	11.8
4	10600.00	39.0 AV	54.0	-15.0	1.53 V	110	27.2	11.8
5	15900.00	53.4 PK	74.0	-20.6	3.52 V	226	41.8	11.6
6	15900.00	39.0 AV	54.0	-15.0	3.52 V	226	27.4	11.6

**Remarks:**

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

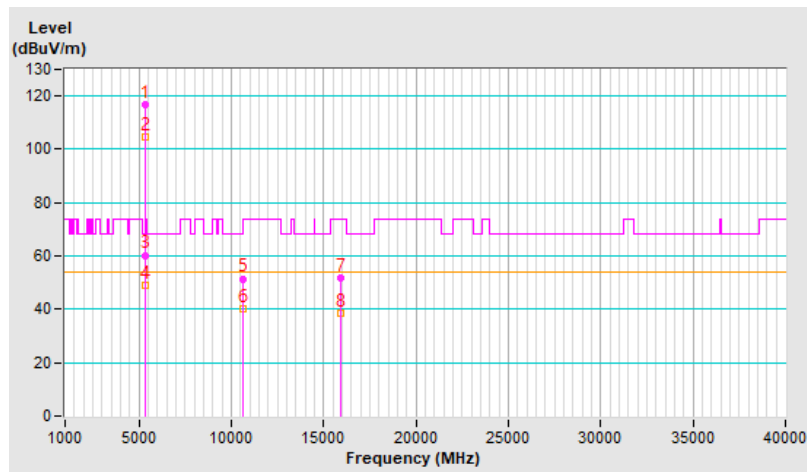


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5320.00	117.0 PK			2.11 H	210	114.4	2.6
2	*5320.00	104.7 AV			2.11 H	210	102.1	2.6
3	5350.00	60.3 PK	74.0	-13.7	2.11 H	210	57.4	2.9
4	5350.00	49.2 AV	54.0	-4.8	2.11 H	210	46.3	2.9
5	10640.00	51.5 PK	74.0	-22.5	1.33 H	149	39.6	11.9
6	10640.00	40.1 AV	54.0	-13.9	1.33 H	149	28.2	11.9
7	15960.00	52.0 PK	74.0	-22.0	3.98 H	228	40.5	11.5
8	15960.00	38.5 AV	54.0	-15.5	3.98 H	228	27.0	11.5

**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.

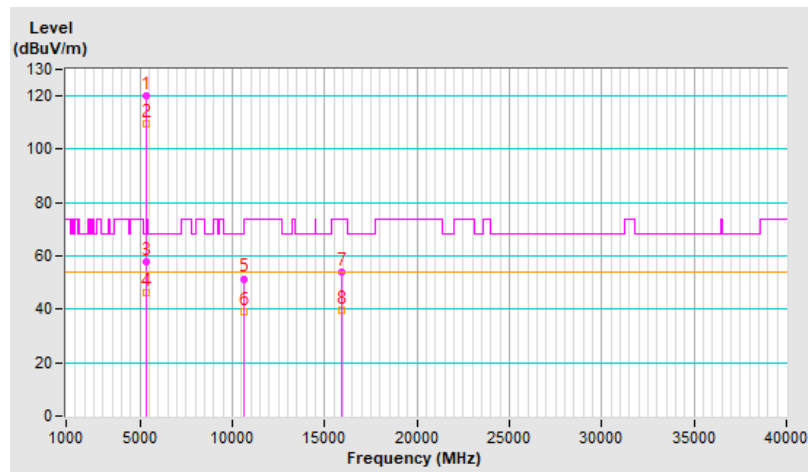


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5320.00	119.9 PK			1.50 V	121	117.3	2.6
2	*5320.00	109.7 AV			1.50 V	121	107.1	2.6
3	5350.00	58.0 PK	74.0	-16.0	1.50 V	121	55.1	2.9
4	5350.00	46.4 AV	54.0	-7.6	1.50 V	121	43.5	2.9
5	10640.00	51.5 PK	74.0	-22.5	1.51 V	115	39.6	11.9
6	10640.00	39.3 AV	54.0	-14.7	1.51 V	115	27.4	11.9
7	15960.00	54.1 PK	74.0	-19.9	3.59 V	233	42.6	11.5
8	15960.00	39.5 AV	54.0	-14.5	3.59 V	233	28.0	11.5

**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.





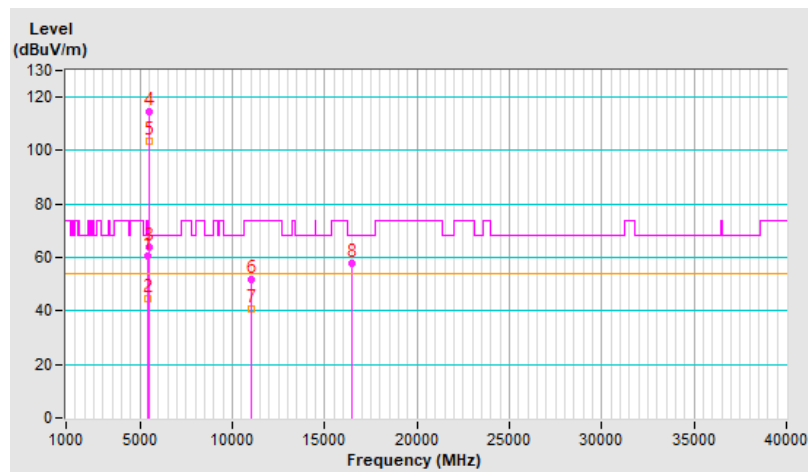
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	60.4 PK	74.0	-13.6	1.50 H	225	57.4	3.0
2	5460.00	44.7 AV	54.0	-9.3	1.50 H	225	41.7	3.0
3	#5470.00	64.0 PK	68.2	-4.2	1.50 H	225	61.0	3.0
4	*5500.00	114.8 PK			1.50 H	225	111.9	2.9
5	*5500.00	103.4 AV			1.50 H	225	100.5	2.9
6	11000.00	51.7 PK	74.0	-22.3	1.45 H	87	39.2	12.5
7	11000.00	40.7 AV	54.0	-13.3	1.45 H	87	28.2	12.5
8	#16500.00	57.8 PK	68.2	-10.4	1.82 H	51	43.3	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.

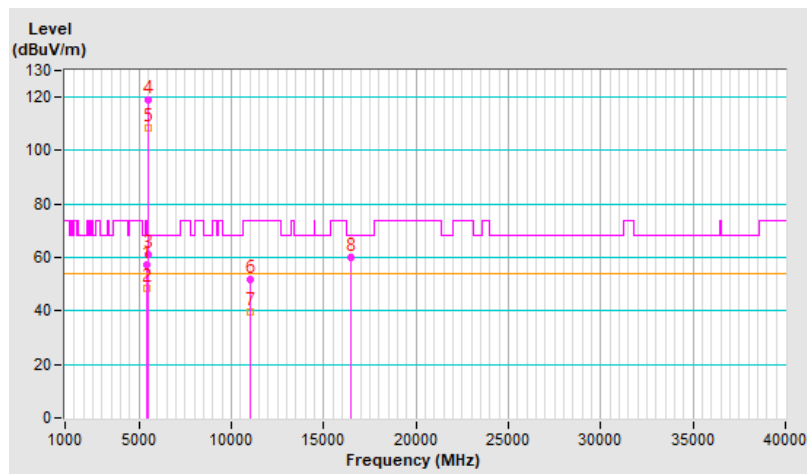


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	57.2 PK	74.0	-16.8	1.55 V	71	54.2	3.0
2	5460.00	48.7 AV	54.0	-5.3	1.55 V	71	45.7	3.0
3	#5470.00	61.3 PK	68.2	-6.9	1.55 V	71	58.3	3.0
4	*5500.00	118.8 PK			1.55 V	71	115.9	2.9
5	*5500.00	108.6 AV			1.55 V	71	105.7	2.9
6	11000.00	51.7 PK	74.0	-22.3	1.45 V	137	39.2	12.5
7	11000.00	39.8 AV	54.0	-14.2	1.45 V	137	27.3	12.5
8	#16500.00	60.2 PK	68.2	-8.0	1.82 V	83	45.7	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.



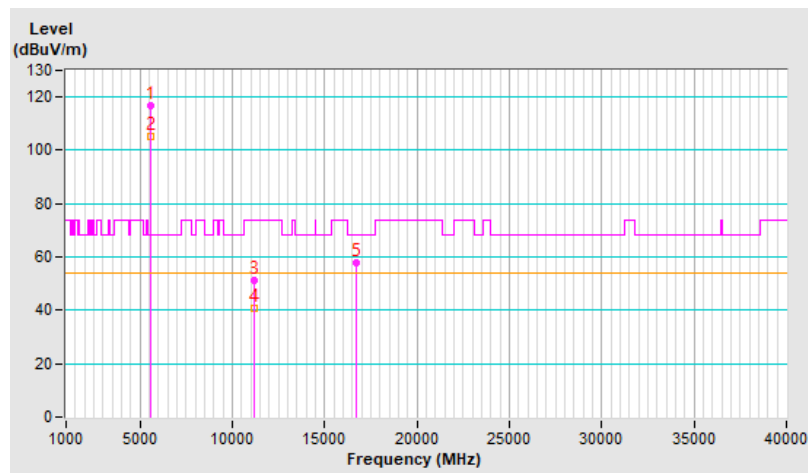
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5580.00	116.8 PK			2.06 H	173	113.9	2.9
2	*5580.00	105.4 AV			2.06 H	173	102.5	2.9
3	11160.00	51.2 PK	74.0	-22.8	1.52 H	86	39.0	12.2
4	11160.00	40.6 AV	54.0	-13.4	1.52 H	86	28.4	12.2
5	#16740.00	57.9 PK	68.2	-10.3	1.79 H	70	43.3	14.6

**Remarks:**

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



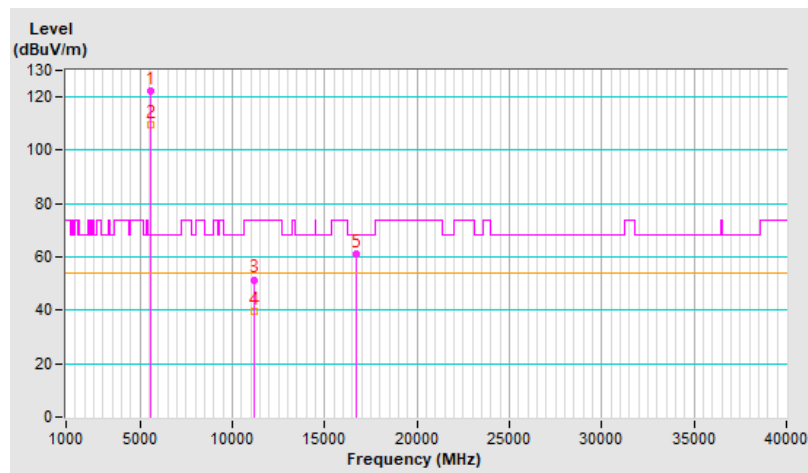
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5580.00	122.3 PK			1.59 V	130	119.4	2.9
2	*5580.00	109.7 AV			1.59 V	130	106.8	2.9
3	11160.00	51.5 PK	74.0	-22.5	1.50 V	120	39.3	12.2
4	11160.00	39.6 AV	54.0	-14.4	1.50 V	120	27.4	12.2
5	#16740.00	61.0 PK	68.2	-7.2	1.76 V	66	46.4	14.6

**Remarks:**

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



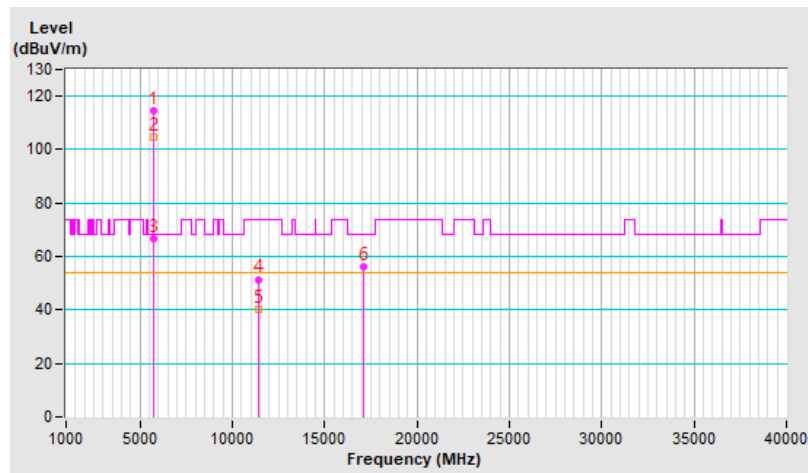
<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5700.00	114.7 PK			1.51 H	190	111.5	3.2
2	*5700.00	104.6 AV			1.51 H	190	101.4	3.2
3	#5725.00	66.7 PK	68.2	-1.5	1.51 H	190	63.3	3.4
4	11400.00	51.5 PK	74.0	-22.5	1.42 H	90	39.2	12.3
5	11400.00	40.4 AV	54.0	-13.6	1.42 H	90	28.1	12.3
6	#17100.00	56.2 PK	68.2	-12.0	1.85 H	75	39.0	17.2

**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.

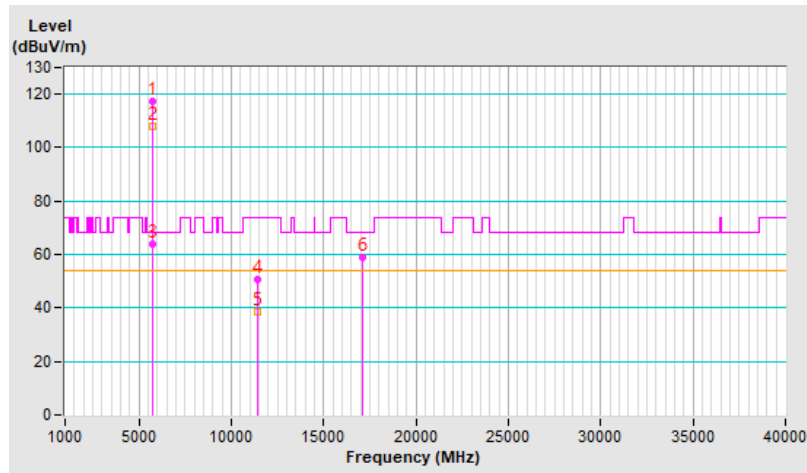


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5700.00	117.1 PK			1.39 V	53	113.9	3.2
2	*5700.00	107.8 AV			1.39 V	53	104.6	3.2
3	#5725.00	63.7 PK	68.2	-4.5	1.39 V	53	60.3	3.4
4	11400.00	50.7 PK	74.0	-23.3	1.51 V	134	38.4	12.3
5	11400.00	38.7 AV	54.0	-15.3	1.51 V	134	26.4	12.3
6	#17100.00	58.7 PK	68.2	-9.5	1.73 V	60	41.5	17.2

**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.

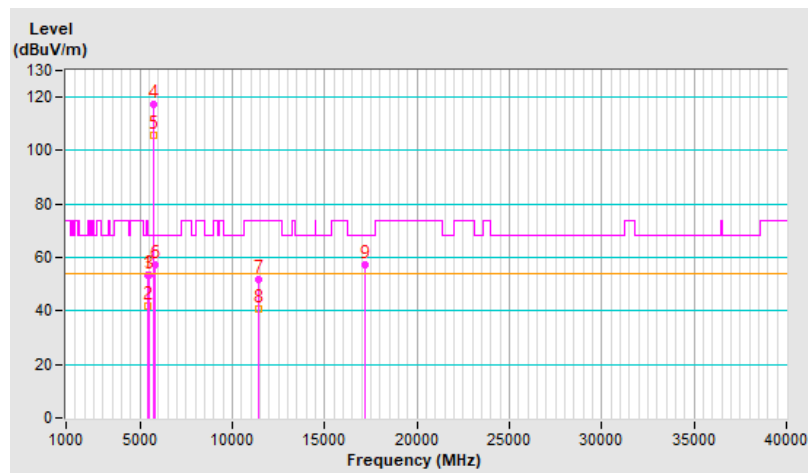


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	53.4 PK	74.0	-20.6	2.07 H	159	50.4	3.0
2	5460.00	41.9 AV	54.0	-12.1	2.07 H	159	38.9	3.0
3	#5470.00	53.3 PK	68.2	-14.9	2.07 H	159	50.3	3.0
4	*5720.00	117.1 PK			2.07 H	159	113.8	3.3
5	*5720.00	105.6 AV			2.07 H	159	102.3	3.3
6	#5850.00	57.5 PK	68.2	-10.7	2.07 H	159	53.7	3.8
7	11440.00	51.6 PK	74.0	-22.4	1.50 H	108	39.2	12.4
8	11440.00	40.5 AV	54.0	-13.5	1.50 H	108	28.1	12.4
9	#17160.00	57.4 PK	68.2	-10.8	1.77 H	73	40.3	17.1

**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.

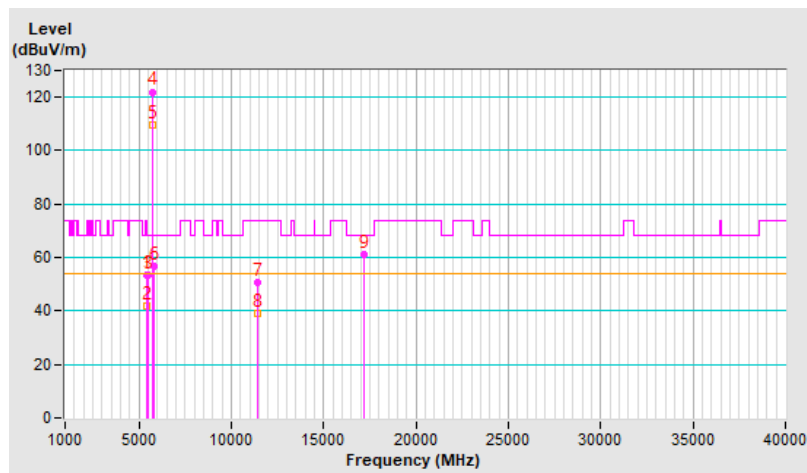


<b>RF Mode</b>	802.11ax (HE20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	53.4 PK	74.0	-20.6	1.48 V	143	50.4	3.0
2	5460.00	42.0 AV	54.0	-12.0	1.48 V	143	39.0	3.0
3	#5470.00	53.6 PK	68.2	-14.6	1.48 V	143	50.6	3.0
4	*5720.00	122.0 PK			1.48 V	143	118.7	3.3
5	*5720.00	109.7 AV			1.48 V	143	106.4	3.3
6	#5850.00	56.8 PK	68.2	-11.4	1.48 V	143	53.0	3.8
7	11440.00	50.9 PK	74.0	-23.1	1.46 V	140	38.5	12.4
8	11440.00	39.3 AV	54.0	-14.7	1.46 V	140	26.9	12.4
9	#17160.00	61.1 PK	68.2	-7.1	1.73 V	70	44.0	17.1

**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.





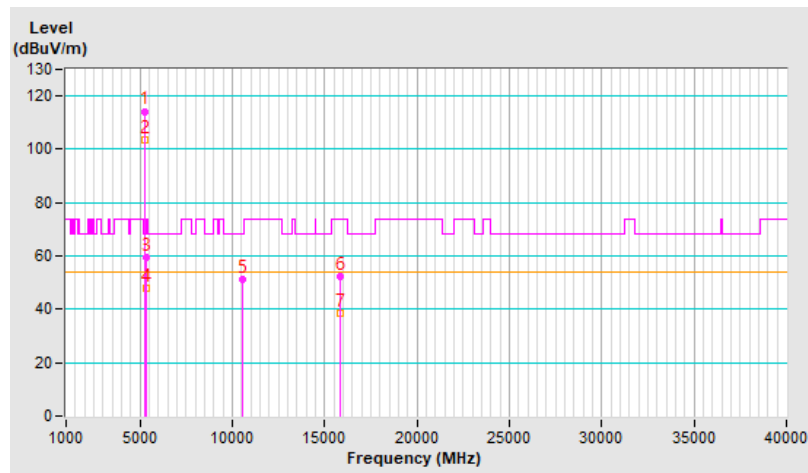
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5270.00	114.3 PK			2.24 H	144	111.9	2.4
2	*5270.00	103.4 AV			2.24 H	144	101.0	2.4
3	5350.00	59.4 PK	74.0	-14.6	2.24 H	144	56.5	2.9
4	5350.00	47.8 AV	54.0	-6.2	2.24 H	144	44.9	2.9
5	#10540.00	51.2 PK	68.2	-17.0	1.38 H	131	39.4	11.8
6	15810.00	52.5 PK	74.0	-21.5	3.94 H	231	40.4	12.1
7	15810.00	38.7 AV	54.0	-15.3	3.94 H	231	26.6	12.1

**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.

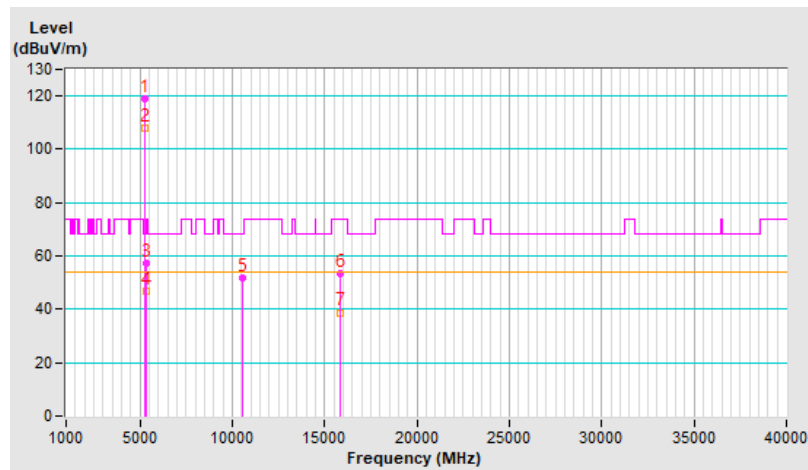


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5270.00	119.0 PK			1.53 V	73	116.6	2.4
2	*5270.00	108.0 AV			1.53 V	73	105.6	2.4
3	5350.00	57.2 PK	74.0	-16.8	1.53 V	73	54.3	2.9
4	5350.00	46.7 AV	54.0	-7.3	1.53 V	73	43.8	2.9
5	#10540.00	51.6 PK	68.2	-16.6	1.48 V	96	39.8	11.8
6	15810.00	53.2 PK	74.0	-20.8	3.48 V	247	41.1	12.1
7	15810.00	38.8 AV	54.0	-15.2	3.48 V	247	26.7	12.1

**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.



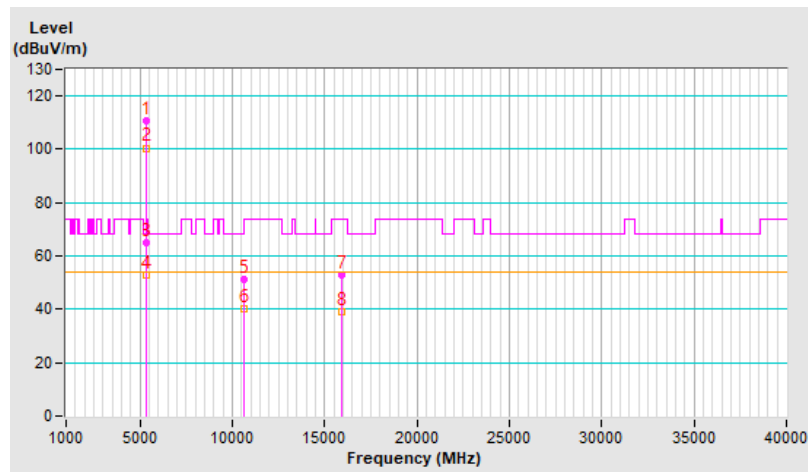
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5310.00	110.8 PK			2.30 H	207	108.3	2.5
2	*5310.00	100.5 AV			2.30 H	207	98.0	2.5
3	5350.00	65.1 PK	74.0	-8.9	2.30 H	207	62.2	2.9
4	5350.00	52.7 AV	54.0	-1.3	2.30 H	207	49.8	2.9
5	10620.00	51.4 PK	74.0	-22.6	1.39 H	149	39.6	11.8
6	10620.00	40.3 AV	54.0	-13.7	1.39 H	149	28.5	11.8
7	15930.00	53.1 PK	74.0	-20.9	3.96 H	202	41.6	11.5
8	15930.00	39.2 AV	54.0	-14.8	3.96 H	202	27.7	11.5

**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.

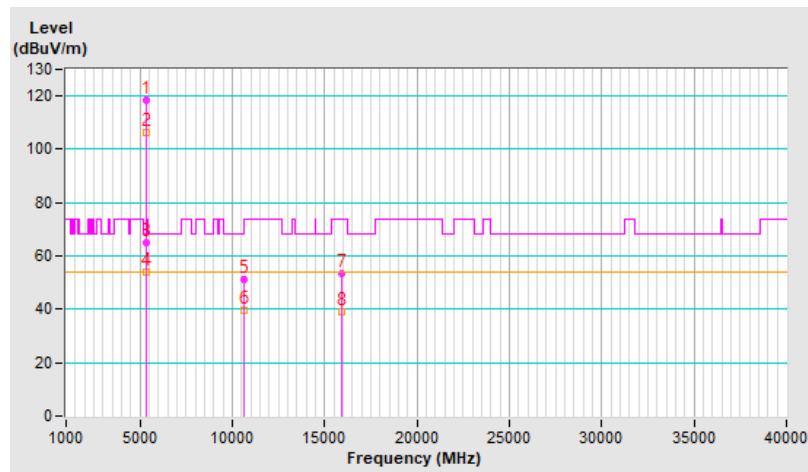


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5310.00	118.3 PK			1.51 V	62	115.8	2.5
2	*5310.00	106.2 AV			1.51 V	62	103.7	2.5
3	5350.00	65.1 PK	74.0	-8.9	1.51 V	62	62.2	2.9
4	5350.00	53.8 AV	54.0	-0.2	1.51 V	62	50.9	2.9
5	10620.00	51.4 PK	74.0	-22.6	1.52 V	103	39.6	11.8
6	10620.00	39.4 AV	54.0	-14.6	1.52 V	103	27.6	11.8
7	15930.00	53.6 PK	74.0	-20.4	3.47 V	252	42.1	11.5
8	15930.00	38.9 AV	54.0	-15.1	3.47 V	252	27.4	11.5

**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.

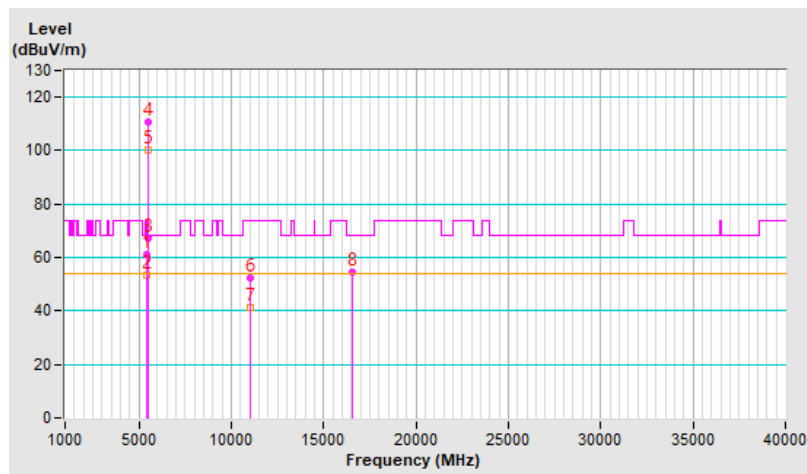


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	61.0 PK	74.0	-13.0	1.83 H	201	58.0	3.0
2	5460.00	53.6 AV	54.0	-0.4	1.83 H	201	50.6	3.0
3	#5470.00	67.1 PK	68.2	-1.1	1.83 H	201	64.1	3.0
4	*5510.00	110.5 PK			1.83 H	201	107.6	2.9
5	*5510.00	100.4 AV			1.83 H	201	97.5	2.9
6	11020.00	52.1 PK	74.0	-21.9	1.44 H	118	39.6	12.5
7	11020.00	41.1 AV	54.0	-12.9	1.44 H	118	28.6	12.5
8	#16530.00	54.6 PK	68.2	-13.6	1.77 H	52	40.2	14.4

**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.

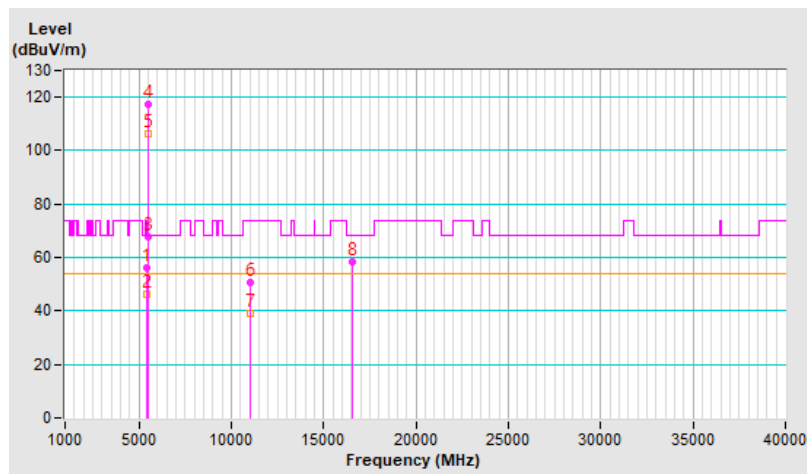


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	56.2 PK	74.0	-17.8	1.48 V	101	53.2	3.0
2	5460.00	46.4 AV	54.0	-7.6	1.48 V	101	43.4	3.0
3	#5470.00	67.5 PK	68.2	-0.7	1.48 V	101	64.5	3.0
4	*5510.00	117.5 PK			1.48 V	101	114.6	2.9
5	*5510.00	106.3 AV			1.48 V	101	103.4	2.9
6	11020.00	50.6 PK	74.0	-23.4	1.48 V	142	38.1	12.5
7	11020.00	38.9 AV	54.0	-15.1	1.48 V	142	26.4	12.5
8	#16530.00	58.3 PK	68.2	-9.9	1.78 V	53	43.9	14.4

**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.



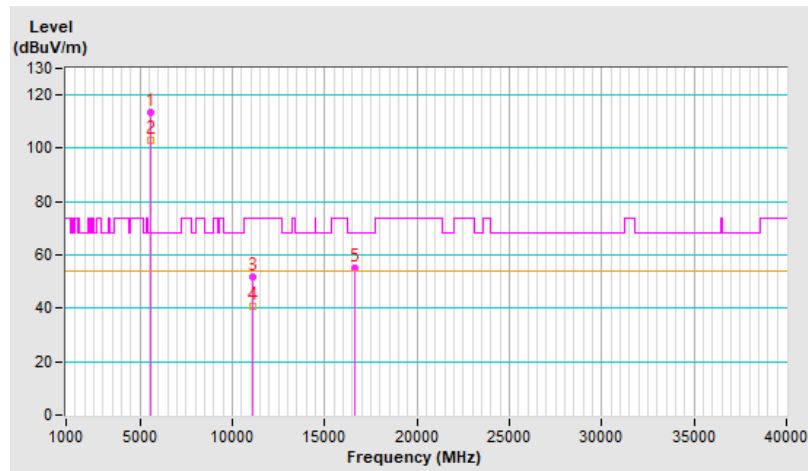
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5550.00	113.7 PK			2.20 H	153	110.8	2.9
2	*5550.00	102.9 AV			2.20 H	153	100.0	2.9
3	11100.00	51.9 PK	74.0	-22.1	1.50 H	93	39.6	12.3
4	11100.00	40.8 AV	54.0	-13.2	1.50 H	93	28.5	12.3
5	#16650.00	55.3 PK	68.2	-12.9	1.80 H	67	41.2	14.1

**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.

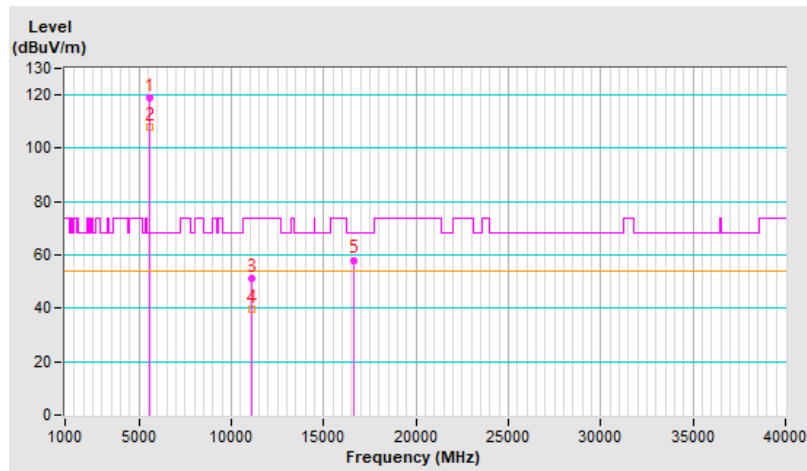


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5550.00	119.1 PK			1.50 V	85	116.2	2.9
2	*5550.00	107.9 AV			1.50 V	85	105.0	2.9
3	11100.00	51.3 PK	74.0	-22.7	1.50 V	138	39.0	12.3
4	11100.00	39.6 AV	54.0	-14.4	1.50 V	138	27.3	12.3
5	#16650.00	58.1 PK	68.2	-10.1	1.80 V	64	44.0	14.1

**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.





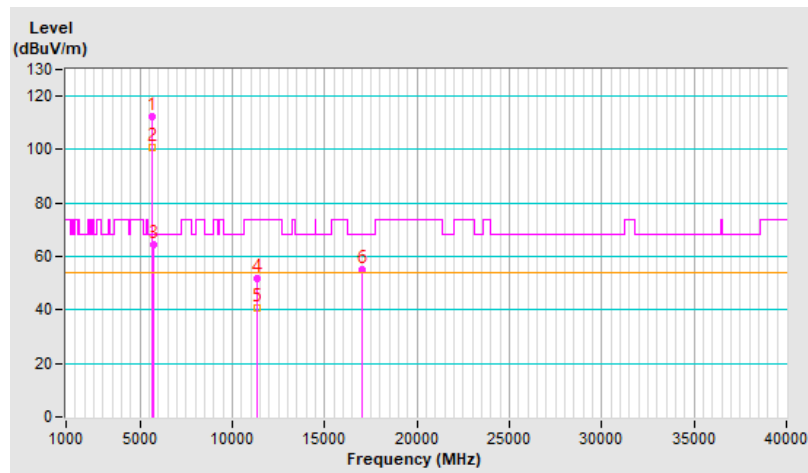
<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5670.00	112.5 PK			1.52 H	187	109.4	3.1
2	*5670.00	100.9 AV			1.52 H	187	97.8	3.1
3	#5725.00	64.4 PK	68.2	-3.8	1.52 H	187	61.0	3.4
4	11340.00	52.0 PK	74.0	-22.0	1.50 H	97	39.5	12.5
5	11340.00	40.7 AV	54.0	-13.3	1.50 H	97	28.2	12.5
6	#17010.00	55.3 PK	68.2	-12.9	1.83 H	71	38.9	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.

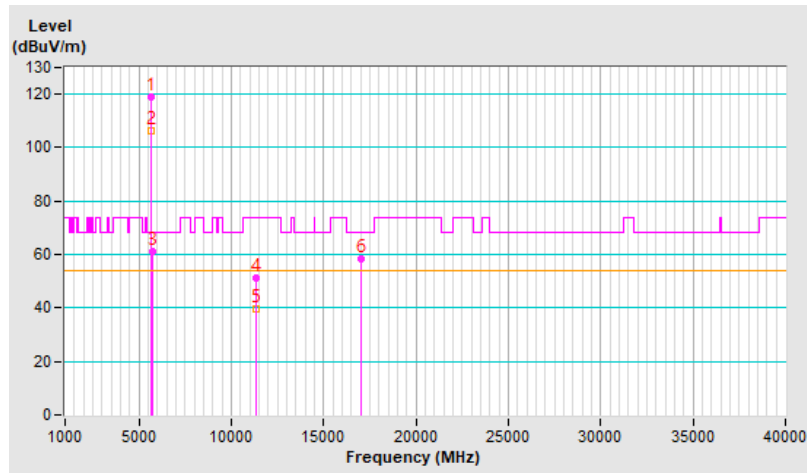


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5670.00	118.9 PK			1.59 V	90	115.8	3.1
2	*5670.00	106.4 AV			1.59 V	90	103.3	3.1
3	#5725.00	61.3 PK	68.2	-6.9	1.59 V	90	57.9	3.4
4	11340.00	51.3 PK	74.0	-22.7	1.46 V	138	38.8	12.5
5	11340.00	39.7 AV	54.0	-14.3	1.46 V	138	27.2	12.5
6	#17010.00	58.2 PK	68.2	-10.0	1.80 V	59	41.8	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.

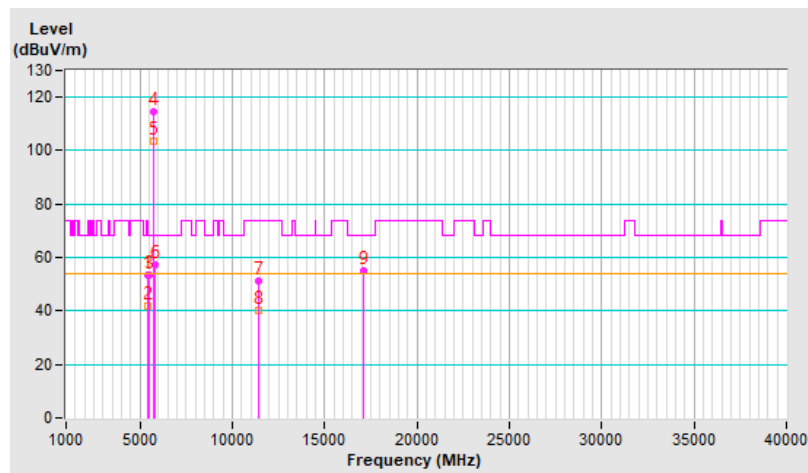


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	53.3 PK	74.0	-20.7	2.23 H	145	50.3	3.0
2	5460.00	41.9 AV	54.0	-12.1	2.23 H	145	38.9	3.0
3	#5470.00	53.4 PK	68.2	-14.8	2.23 H	145	50.4	3.0
4	*5710.00	114.4 PK			2.23 H	145	111.1	3.3
5	*5710.00	103.5 AV			2.23 H	145	100.2	3.3
6	#5850.00	57.3 PK	68.2	-10.9	2.23 H	145	53.5	3.8
7	11420.00	51.3 PK	74.0	-22.7	1.54 H	105	38.9	12.4
8	11420.00	40.3 AV	54.0	-13.7	1.54 H	105	27.9	12.4
9	#17130.00	55.0 PK	68.2	-13.2	1.76 H	79	37.8	17.2

**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.

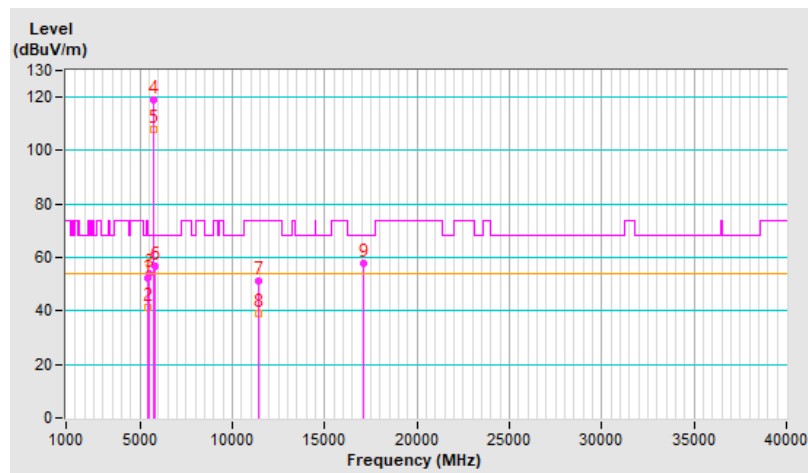


<b>RF Mode</b>	802.11ax (HE40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	52.5 PK	74.0	-21.5	1.54 V	84	49.5	3.0
2	5460.00	41.2 AV	54.0	-12.8	1.54 V	84	38.2	3.0
3	#5470.00	53.9 PK	68.2	-14.3	1.54 V	84	50.9	3.0
4	*5710.00	119.2 PK			1.54 V	84	115.9	3.3
5	*5710.00	108.0 AV			1.54 V	84	104.7	3.3
6	#5850.00	56.5 PK	68.2	-11.7	1.54 V	84	52.7	3.8
7	11420.00	51.0 PK	74.0	-23.0	1.53 V	121	38.6	12.4
8	11420.00	39.0 AV	54.0	-15.0	1.53 V	121	26.6	12.4
9	#17130.00	57.8 PK	68.2	-10.4	1.81 V	58	40.6	17.2

**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.



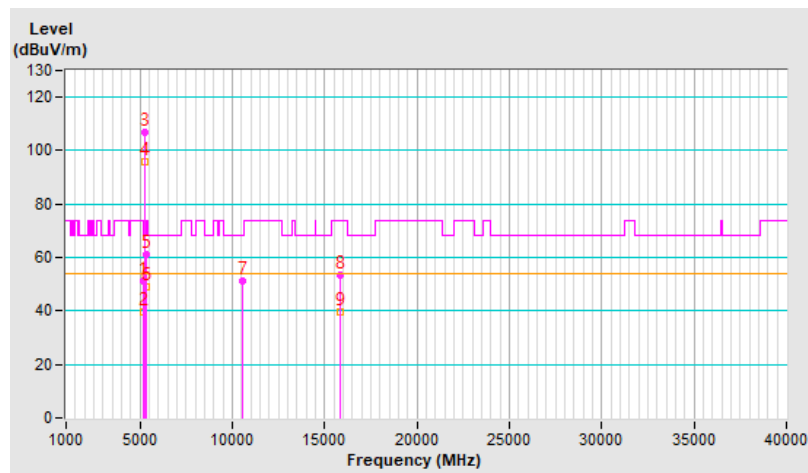
<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5150.00	51.2 PK	74.0	-22.8	1.73 H	174	48.1	3.1
2	5150.00	39.5 AV	54.0	-14.5	1.73 H	174	36.4	3.1
3	*5290.00	106.8 PK			1.73 H	174	104.4	2.4
4	*5290.00	96.0 AV			1.73 H	174	93.6	2.4
5	5355.84	61.2 PK	74.0	-12.8	1.73 H	174	58.3	2.9
6	5355.84	49.1 AV	54.0	-4.9	1.73 H	174	46.2	2.9
7	#10580.00	51.2 PK	68.2	-17.0	1.39 H	135	39.5	11.7
8	15870.00	53.3 PK	74.0	-20.7	4.00 H	195	41.5	11.8
9	15870.00	39.6 AV	54.0	-14.4	4.00 H	195	27.8	11.8

**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.

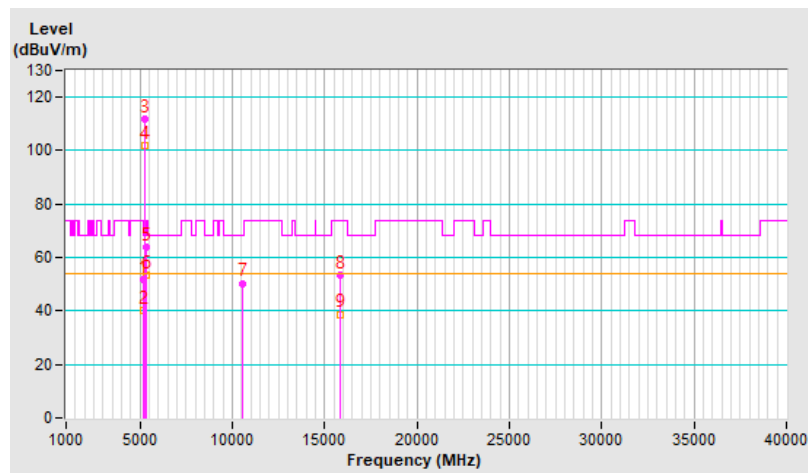


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5150.00	52.0 PK	74.0	-22.0	1.60 V	117	48.9	3.1
2	5150.00	40.0 AV	54.0	-14.0	1.60 V	117	36.9	3.1
3	*5290.00	111.6 PK			1.60 V	117	109.2	2.4
4	*5290.00	101.9 AV			1.60 V	117	99.5	2.4
5	5355.84	63.7 PK	74.0	-10.3	1.60 V	117	60.8	2.9
6	5355.84	53.6 AV	54.0	-0.4	1.60 V	117	50.7	2.9
7	#10580.00	50.4 PK	68.2	-17.8	1.49 V	114	38.7	11.7
8	15870.00	53.4 PK	74.0	-20.6	3.53 V	264	41.6	11.8
9	15870.00	38.8 AV	54.0	-15.2	3.53 V	264	27.0	11.8

**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.

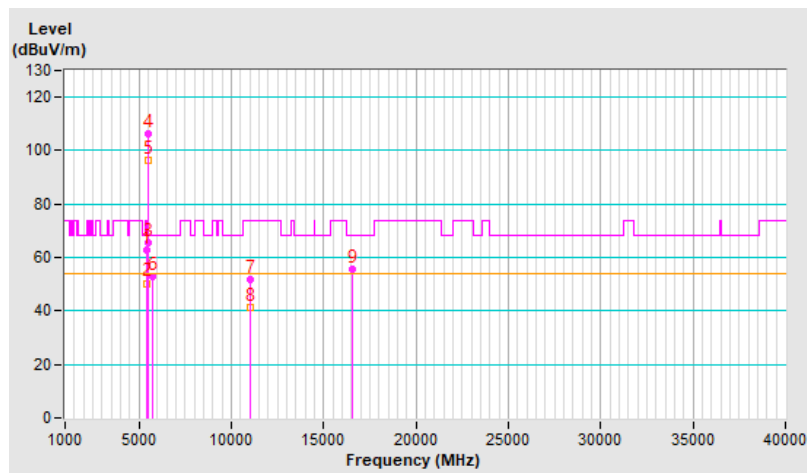


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	62.9 PK	74.0	-11.1	1.50 H	226	59.9	3.0
2	5460.00	50.4 AV	54.0	-3.6	1.50 H	226	47.4	3.0
3	#5470.00	65.3 PK	68.2	-2.9	1.50 H	226	62.3	3.0
4	*5530.00	106.5 PK			1.50 H	226	103.6	2.9
5	*5530.00	96.3 AV			1.50 H	226	93.4	2.9
6	#5725.00	53.0 PK	68.2	-15.2	1.50 H	226	49.6	3.4
7	11060.00	51.9 PK	74.0	-22.1	1.51 H	87	39.5	12.4
8	11060.00	41.1 AV	54.0	-12.9	1.51 H	87	28.7	12.4
9	#16590.00	55.5 PK	68.2	-12.7	1.82 H	56	41.4	14.1

**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.

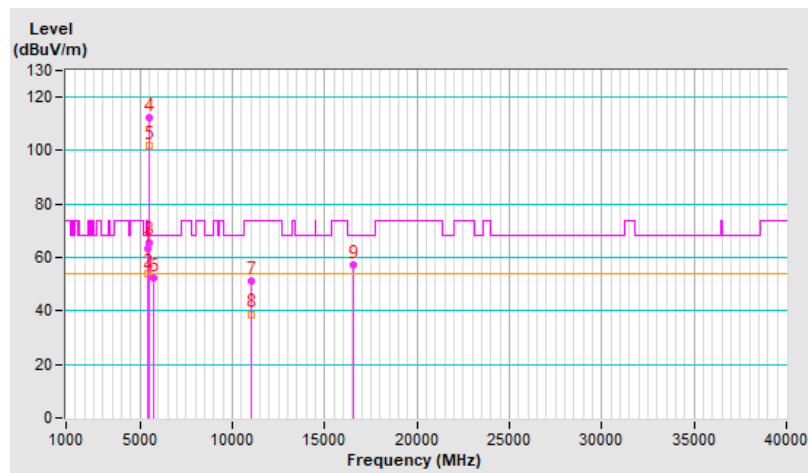


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	63.4 PK	74.0	-10.6	1.44 V	113	60.4	3.0
2	<b>5460.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.44 V</b>	<b>113</b>	<b>50.9</b>	<b>3.0</b>
3	#5470.00	65.8 PK	68.2	-2.4	1.44 V	113	62.8	3.0
4	*5530.00	112.6 PK			1.44 V	113	109.7	2.9
5	*5530.00	102.1 AV			1.44 V	113	99.2	2.9
6	#5725.00	52.5 PK	68.2	-15.7	1.44 V	113	49.1	3.4
7	11060.00	51.1 PK	74.0	-22.9	1.47 V	127	38.7	12.4
8	11060.00	38.8 AV	54.0	-15.2	1.47 V	127	26.4	12.4
9	#16590.00	57.5 PK	68.2	-10.7	1.75 V	59	43.4	14.1

**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.



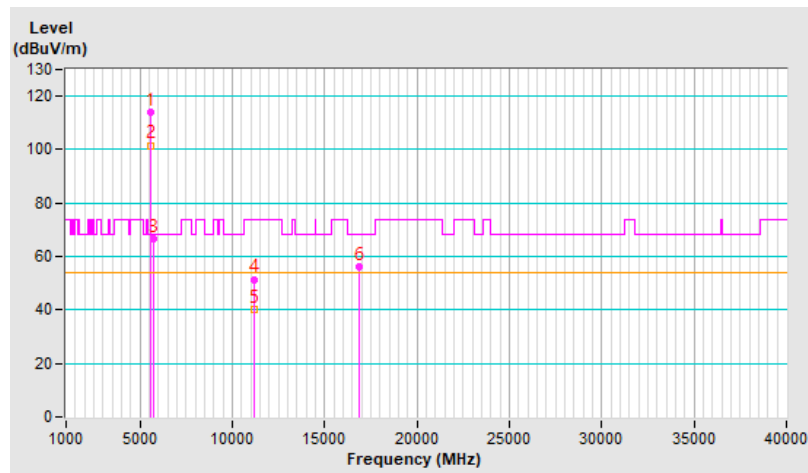


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	*5610.00	113.8 PK			1.56 H	209	110.9	2.9
2	*5610.00	101.6 AV			1.56 H	209	98.7	2.9
3	#5725.00	66.4 PK	68.2	-1.8	1.56 H	209	63.0	3.4
4	11220.00	51.5 PK	74.0	-22.5	1.48 H	104	39.2	12.3
5	11220.00	40.4 AV	54.0	-13.6	1.48 H	104	28.1	12.3
6	#16830.00	56.0 PK	68.2	-12.2	1.78 H	69	40.7	15.3

**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.

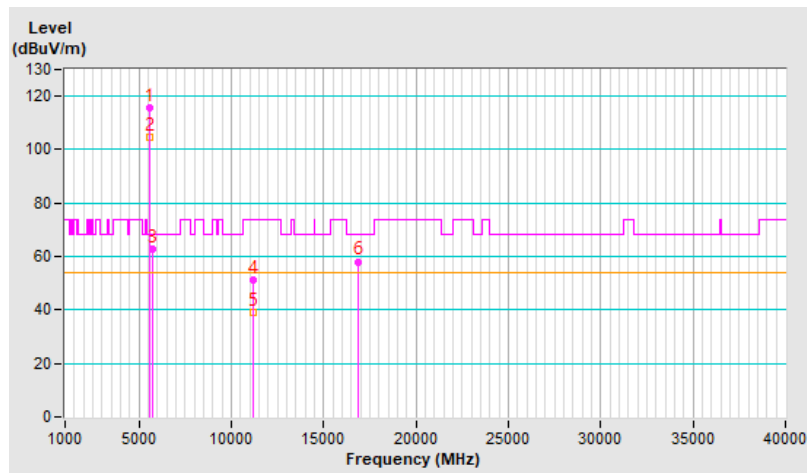


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	*5610.00	115.5 PK			1.50 V	116	112.6	2.9
2	*5610.00	104.4 AV			1.50 V	116	101.5	2.9
3	#5725.00	62.6 PK	68.2	-5.6	1.50 V	116	59.2	3.4
4	11220.00	51.0 PK	74.0	-23.0	1.49 V	131	38.7	12.3
5	11220.00	39.0 AV	54.0	-15.0	1.49 V	131	26.7	12.3
6	#16830.00	58.1 PK	68.2	-10.1	1.81 V	55	42.8	15.3

**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.

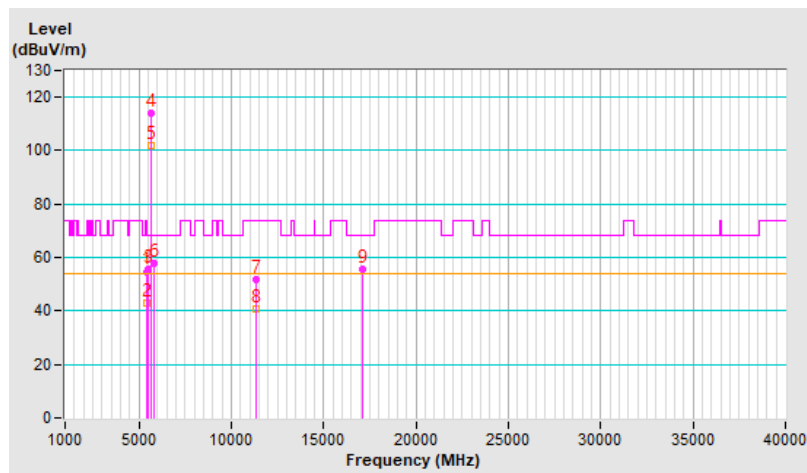


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</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	5460.00	54.8 PK	74.0	-19.2	1.67 H	215	51.8	3.0
2	5460.00	43.1 AV	54.0	-10.9	1.67 H	215	40.1	3.0
3	#5470.00	55.8 PK	68.2	-12.4	1.67 H	215	52.8	3.0
4	*5690.00	114.1 PK			1.67 H	215	110.9	3.2
5	*5690.00	101.8 AV			1.67 H	215	98.6	3.2
6	#5850.00	57.9 PK	68.2	-10.3	1.67 H	215	54.1	3.8
7	11380.00	51.7 PK	74.0	-22.3	1.54 H	101	39.4	12.3
8	11380.00	40.9 AV	54.0	-13.1	1.54 H	101	28.6	12.3
9	#17070.00	55.6 PK	68.2	-12.6	1.75 H	68	38.6	17.0

**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.

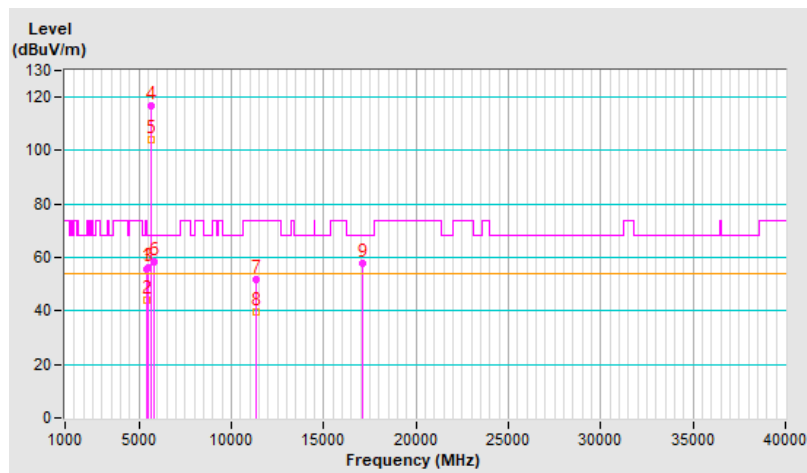


<b>RF Mode</b>	802.11ax (HE80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	55.9 PK	74.0	-18.1	1.50 V	118	52.9	3.0
2	5460.00	44.1 AV	54.0	-9.9	1.50 V	118	41.1	3.0
3	#5470.00	56.1 PK	68.2	-12.1	1.50 V	118	53.1	3.0
4	*5690.00	116.8 PK			1.50 V	118	113.6	3.2
5	*5690.00	104.2 AV			1.50 V	118	101.0	3.2
6	#5850.00	58.6 PK	68.2	-9.6	1.50 V	118	54.8	3.8
7	11380.00	51.8 PK	74.0	-22.2	1.45 V	139	39.5	12.3
8	11380.00	39.6 AV	54.0	-14.4	1.45 V	139	27.3	12.3
9	#17070.00	57.6 PK	68.2	-10.6	1.72 V	69	40.6	17.0

**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.



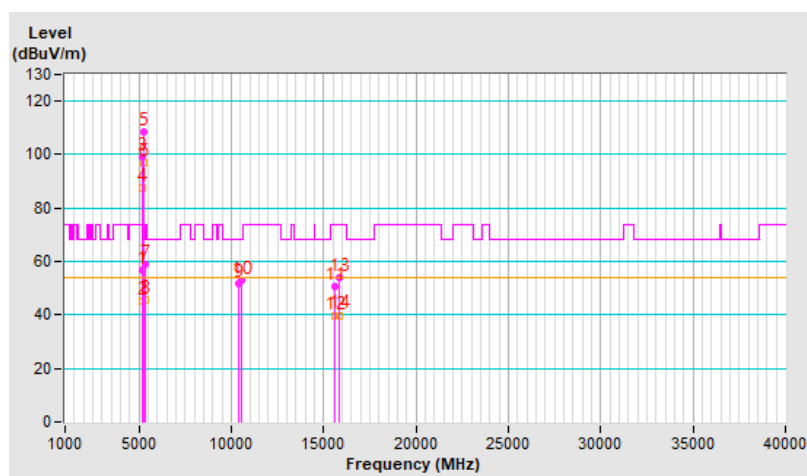
<b>RF Mode</b>	802.11ax (HE80+80)	<b>Channel</b>	CH 42+58 : 5210+5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested 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	5150.00	56.8 PK	74.0	-17.2	2.73 H	269	53.7	3.1
2	5150.00	45.2 AV	54.0	-8.8	2.73 H	269	42.1	3.1
3	*5210.00	99.2 PK			2.73 H	269	96.5	2.7
4	*5210.00	87.5 AV			2.73 H	269	84.8	2.7
5	*5290.00	108.7 PK			2.73 H	269	106.3	2.4
6	*5290.00	96.8 AV			2.73 H	269	94.4	2.4
7	5350.00	59.1 PK	74.0	-14.9	2.73 H	269	56.2	2.9
8	5350.00	45.6 AV	54.0	-8.4	2.73 H	269	42.7	2.9
9	#10420.00	51.7 PK	68.2	-16.5	3.14 H	109	39.9	11.8
10	#10580.00	52.8 PK	68.2	-15.4	1.33 H	345	41.1	11.7
11	15630.00	50.5 PK	74.0	-23.5	3.33 H	132	38.8	11.7
12	15630.00	39.4 AV	54.0	-14.6	3.33 H	132	27.7	11.7
13	15870.00	53.8 PK	74.0	-20.2	1.48 H	339	42.0	11.8
14	15870.00	39.9 AV	54.0	-14.1	1.48 H	339	28.1	11.8

**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.

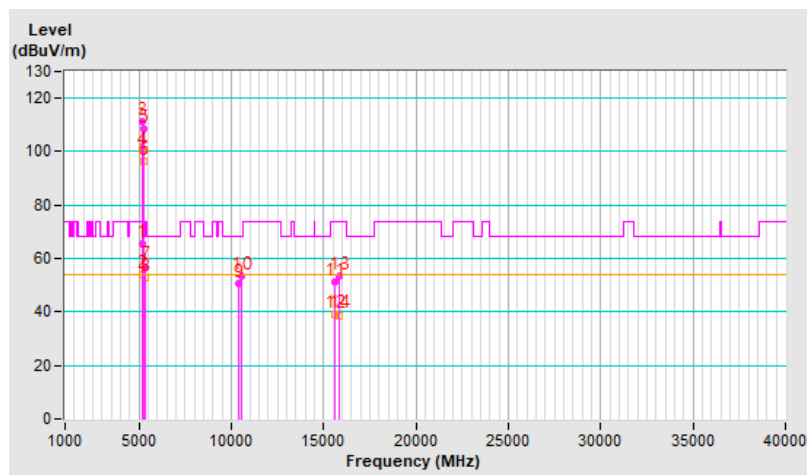


<b>RF Mode</b>	802.11ax (HE80+80)	<b>Channel</b>	CH 42+58 : 5210+5290 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5150.00	65.3 PK	74.0	-8.7	1.50 V	119	62.2	3.1
2	5150.00	53.8 AV	54.0	-0.2	1.50 V	119	50.7	3.1
3	*5210.00	111.2 PK			1.50 V	119	108.5	2.7
4	*5210.00	100.0 AV			1.50 V	119	97.3	2.7
5	*5290.00	108.7 PK			1.50 V	119	106.3	2.4
6	*5290.00	96.2 AV			1.50 V	119	93.8	2.4
7	5350.00	57.0 PK	74.0	-17.0	1.50 V	119	54.1	2.9
8	5350.00	53.1 AV	54.0	-0.9	1.50 V	119	50.2	2.9
9	#10420.00	50.5 PK	68.2	-17.7	1.05 V	168	38.7	11.8
10	#10580.00	53.2 PK	68.2	-15.0	1.50 V	205	41.5	11.7
11	15630.00	51.2 PK	74.0	-22.8	2.04 V	19	39.5	11.7
12	15630.00	38.9 AV	54.0	-15.1	2.04 V	19	27.2	11.7
13	15870.00	53.5 PK	74.0	-20.5	2.05 V	8	41.7	11.8
14	15870.00	38.8 AV	54.0	-15.2	2.05 V	8	27.0	11.8

**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.



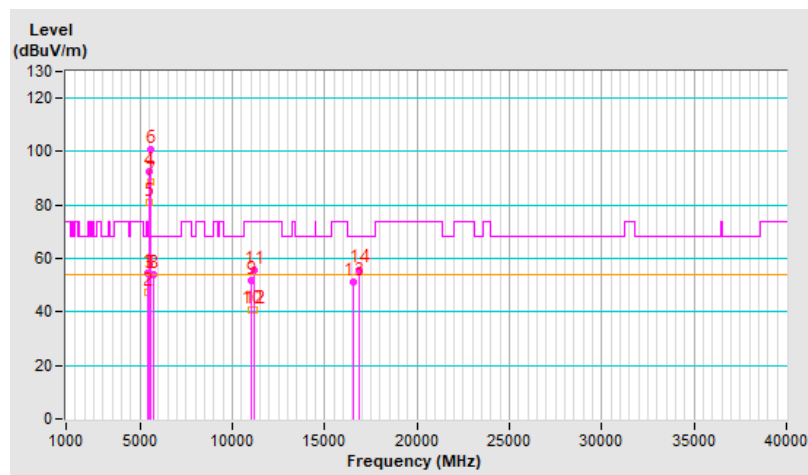
<b>RF Mode</b>	802.11ax (HE80+80)	<b>Channel</b>	CH 106+122 : 5530+5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<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	5449.85	54.6 PK	74.0	-19.4	1.26 H	135	51.5	3.1
2	5449.85	47.6 AV	54.0	-6.4	1.26 H	135	44.5	3.1
3	#5470.00	54.0 PK	68.2	-14.2	1.26 H	135	51.0	3.0
4	*5530.00	92.4 PK			1.26 H	135	89.5	2.9
5	*5530.00	81.0 AV			1.26 H	135	78.1	2.9
6	*5610.00	100.6 PK			1.26 H	135	97.7	2.9
7	*5610.00	88.7 AV			1.26 H	135	85.8	2.9
8	#5725.00	53.9 PK	68.2	-14.3	1.26 H	135	50.5	3.4
9	11060.00	51.7 PK	74.0	-22.3	1.60 H	88	39.3	12.4
10	11060.00	40.6 AV	54.0	-13.4	1.60 H	88	28.2	12.4
11	11220.00	55.4 PK	74.0	-18.6	1.69 H	82	43.1	12.3
12	11220.00	40.8 AV	54.0	-13.2	1.69 H	82	28.5	12.3
13	#16590.00	51.2 PK	68.2	-17.0	1.56 H	111	37.1	14.1
14	#16830.00	55.9 PK	68.2	-12.3	1.77 H	66	40.6	15.3

**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.

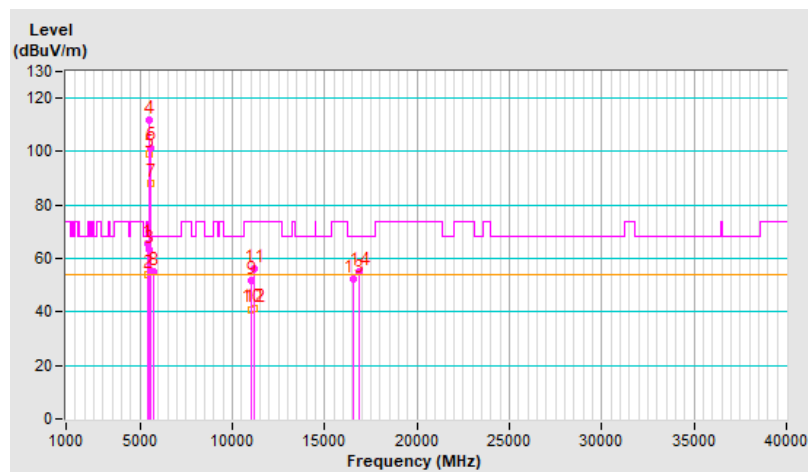


<b>RF Mode</b>	802.11ax (HE80+80)	<b>Channel</b>	CH 106+122 : 5530+5610 MHz
<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	24°C, 70% RH
<b>Tested By</b>	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	5460.00	65.7 PK	74.0	-8.3	1.55 V	73	62.7	3.0
2	<b>5460.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.55 V</b>	<b>73</b>	<b>50.9</b>	<b>3.0</b>
3	#5470.00	63.1 PK	68.2	-5.1	1.55 V	73	60.1	3.0
4	*5530.00	111.6 PK			1.55 V	73	108.7	2.9
5	*5530.00	99.1 AV			1.55 V	73	96.2	2.9
6	*5610.00	101.6 PK			1.55 V	73	98.7	2.9
7	*5610.00	88.1 AV			1.55 V	73	85.2	2.9
8	#5725.00	55.1 PK	68.2	-13.1	1.55 V	73	51.7	3.4
9	11060.00	52.0 PK	74.0	-22.0	1.45 V	143	39.6	12.4
10	11060.00	41.0 AV	54.0	-13.0	1.45 V	143	28.6	12.4
11	11220.00	56.0 PK	74.0	-18.0	1.77 V	61	43.7	12.3
12	11220.00	41.3 AV	54.0	-12.7	1.77 V	61	29.0	12.3
13	#16590.00	52.1 PK	68.2	-16.1	1.46 V	143	38.0	14.1
14	#16830.00	55.1 PK	68.2	-13.1	1.68 V	66	39.8	15.3

**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.

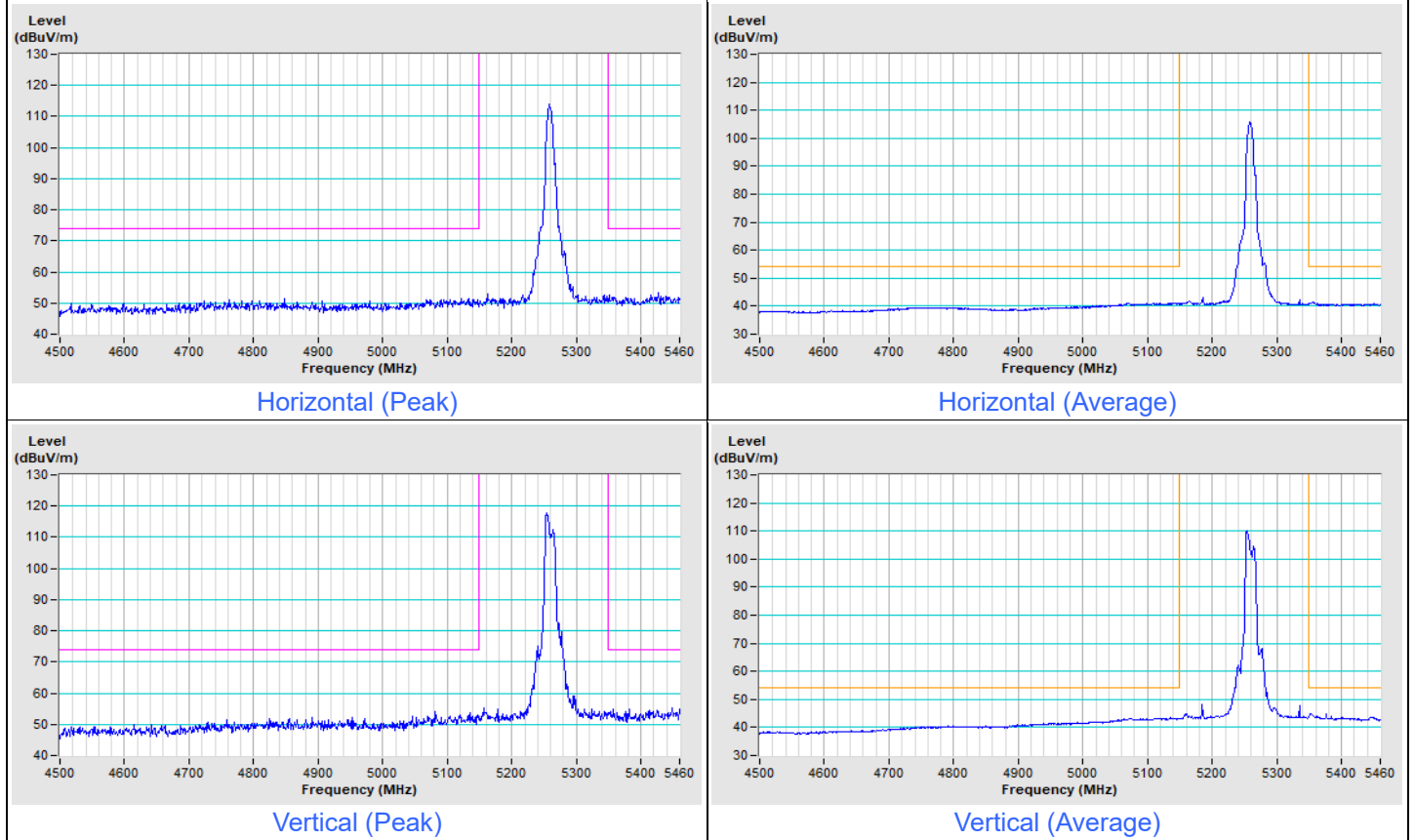




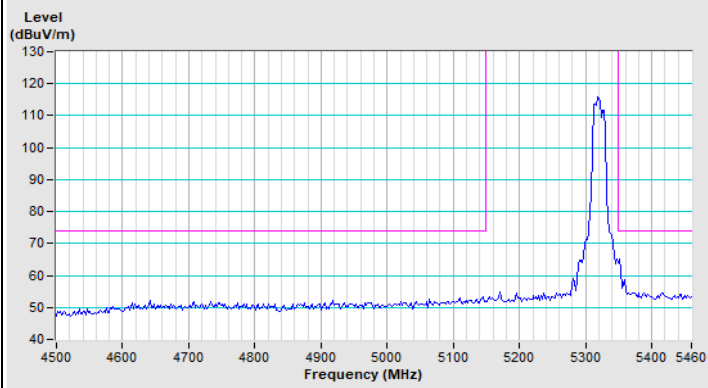
### Plot of Band Edge

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=510 Hz, DET=Peak
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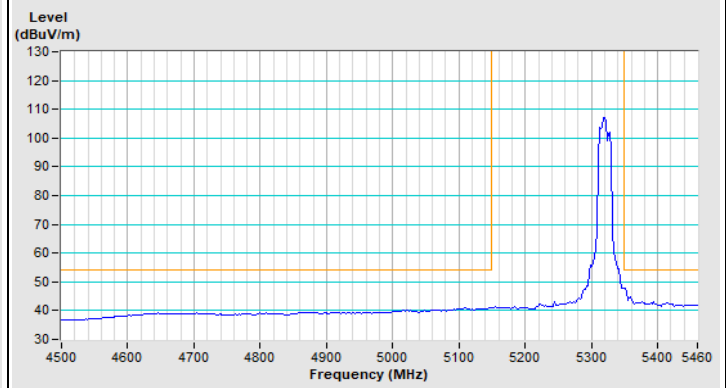
#### 802.11a Channel 52



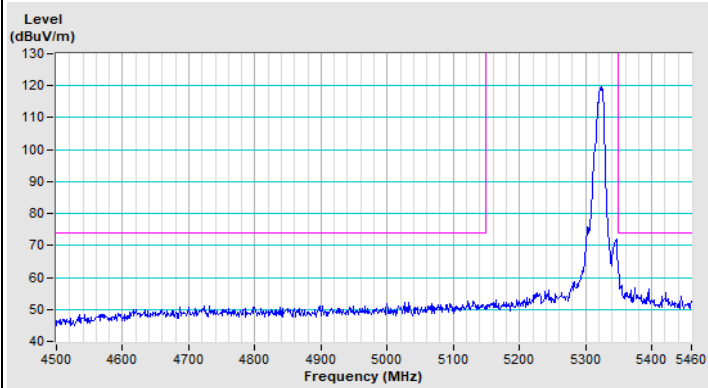
### 802.11a Channel 64



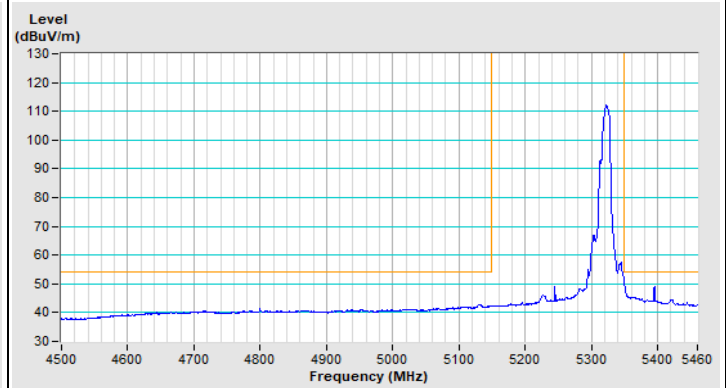
Horizontal (Peak)



Horizontal (Average)



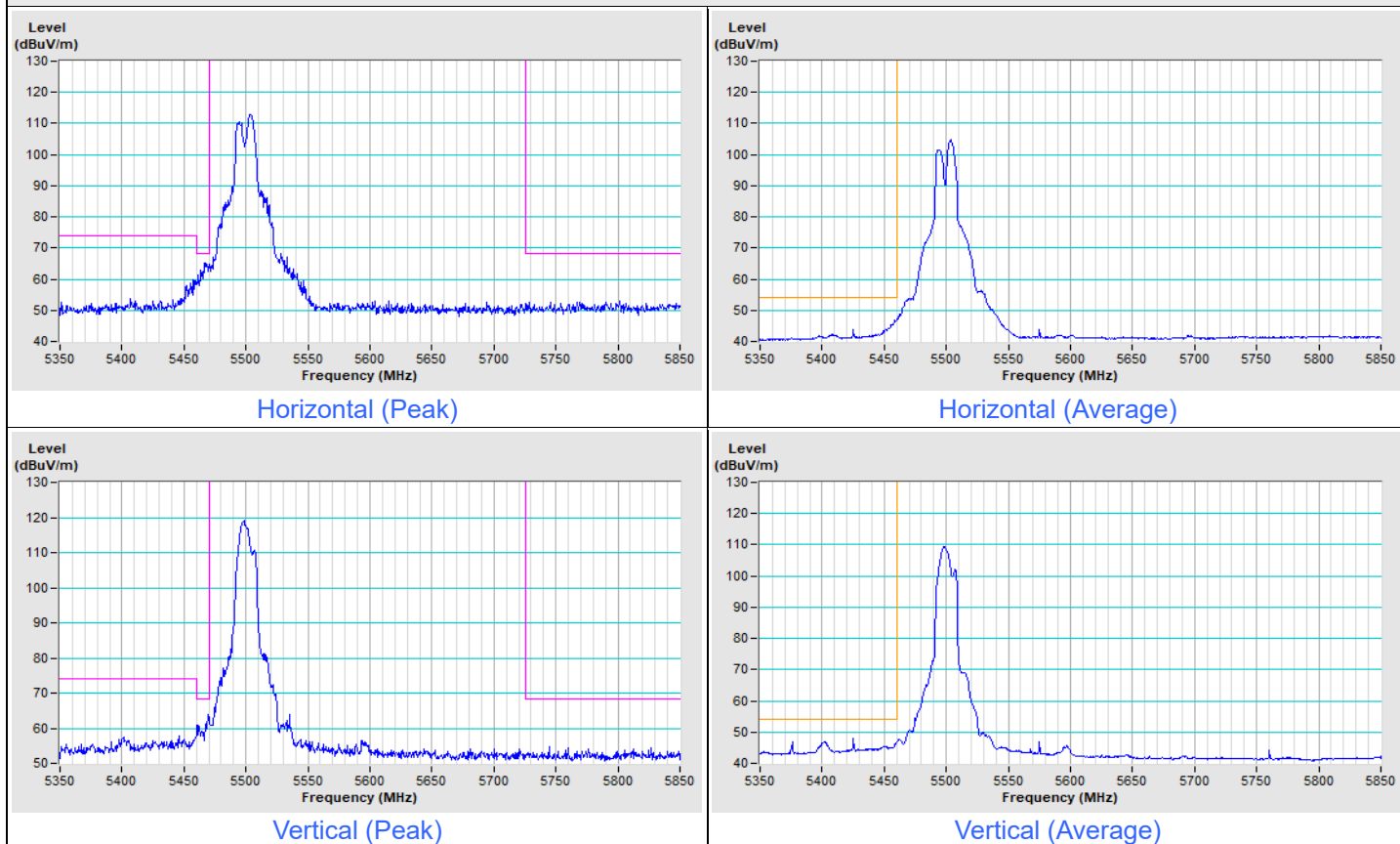
Vertical (Peak)



Vertical (Average)

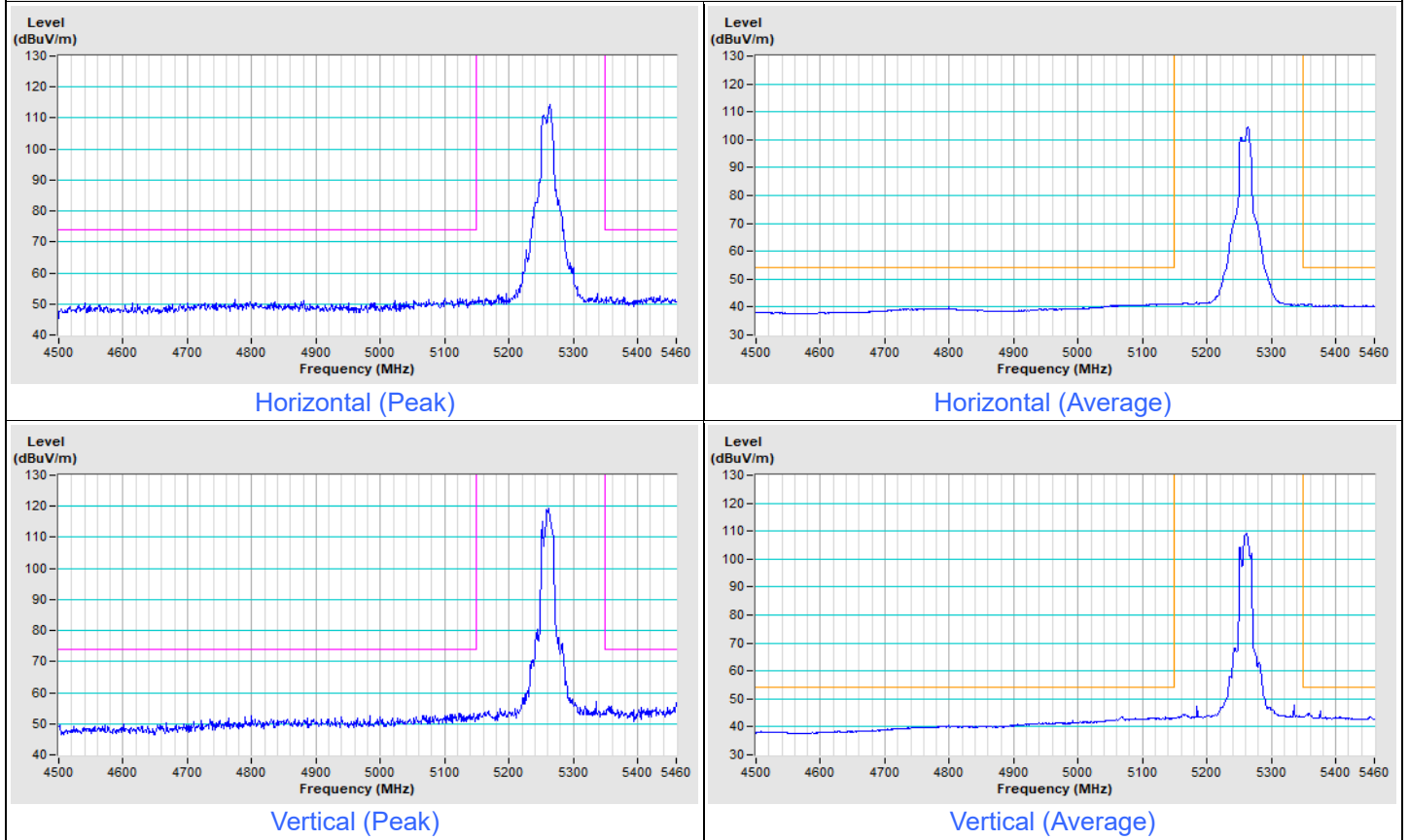
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
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### 802.11a Channel 100

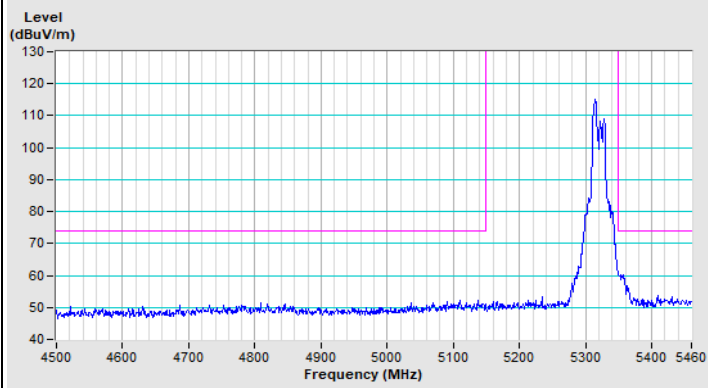


Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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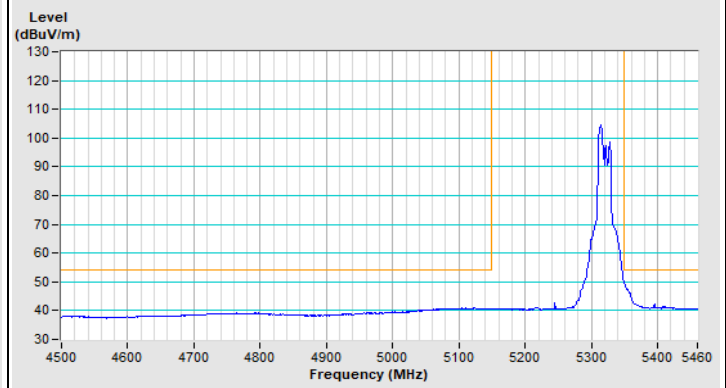
**802.11ax (HE20) Channel 52**



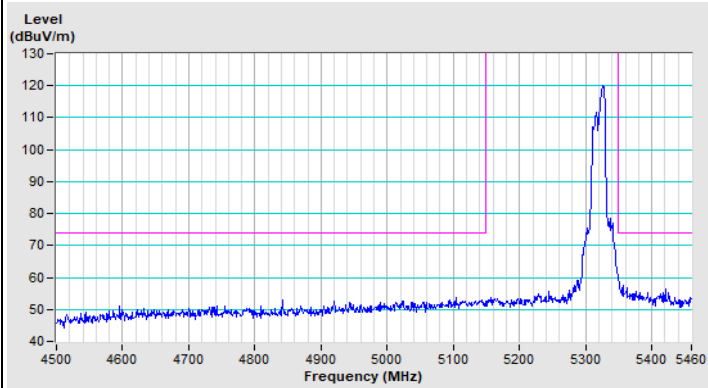
### 802.11ax (HE20) Channel 64



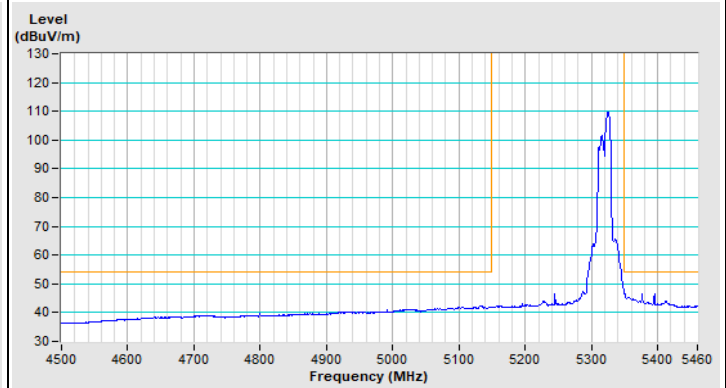
Horizontal (Peak)



Horizontal (Average)



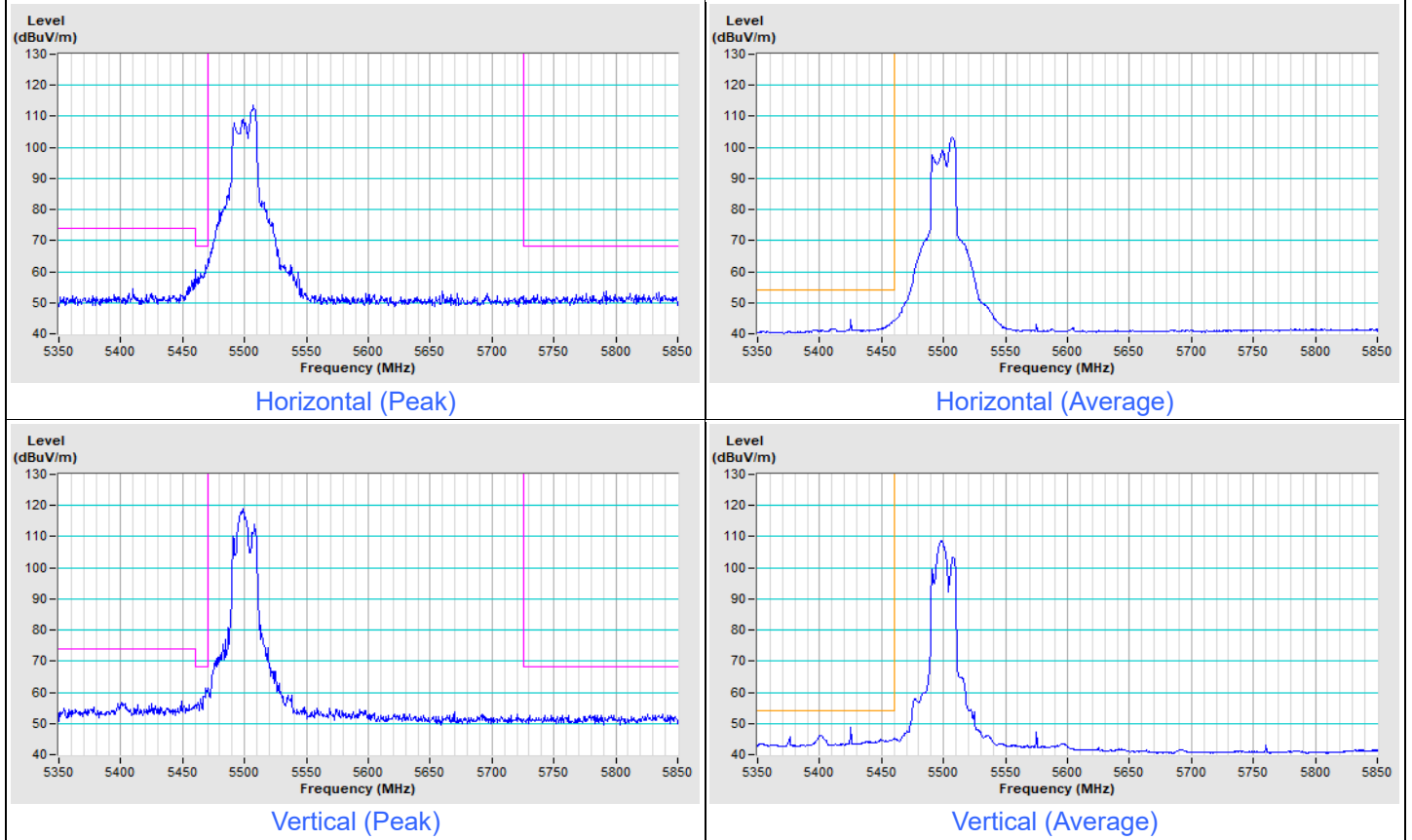
Vertical (Peak)



Vertical (Average)

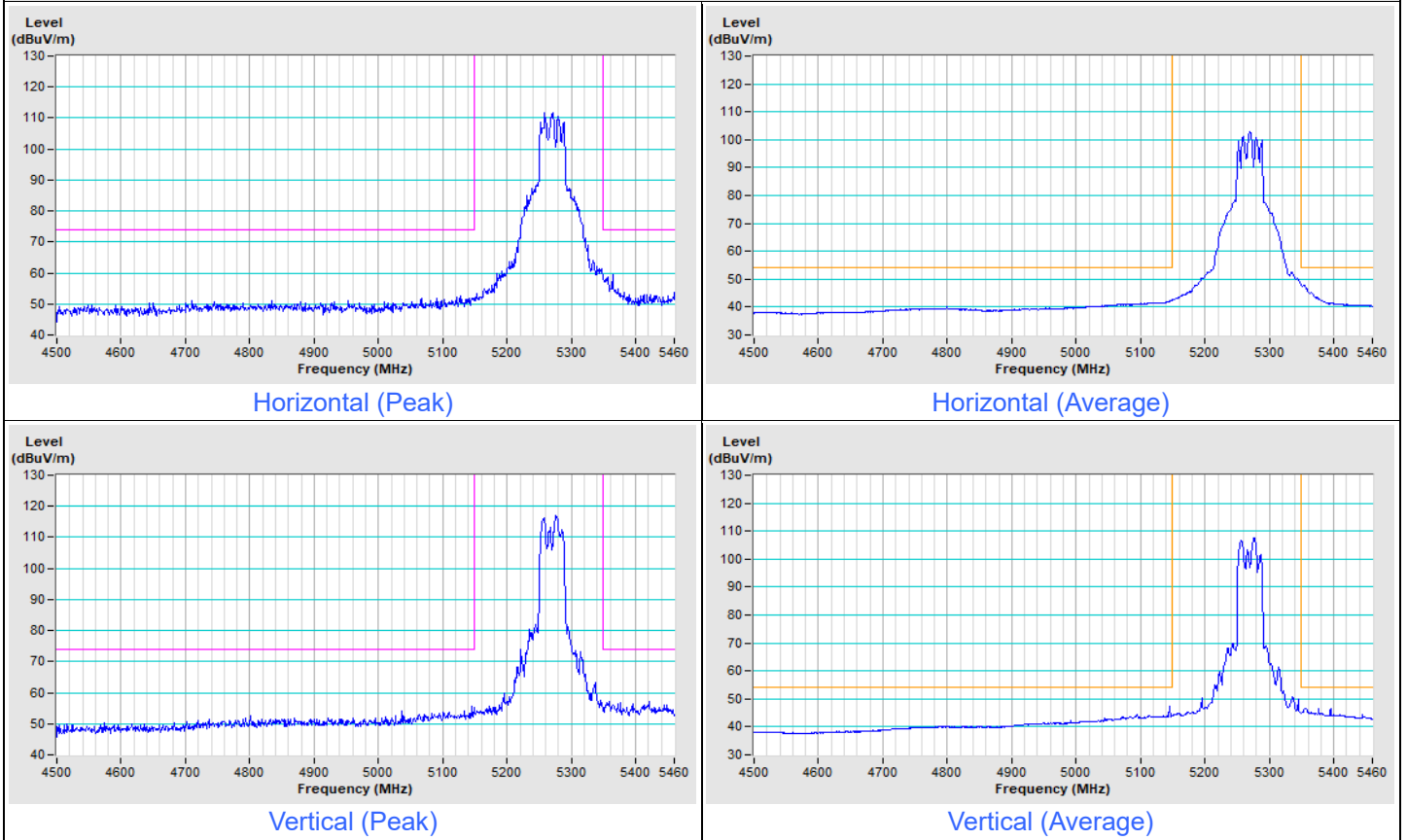
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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**802.11ax (HE20) Channel 100**

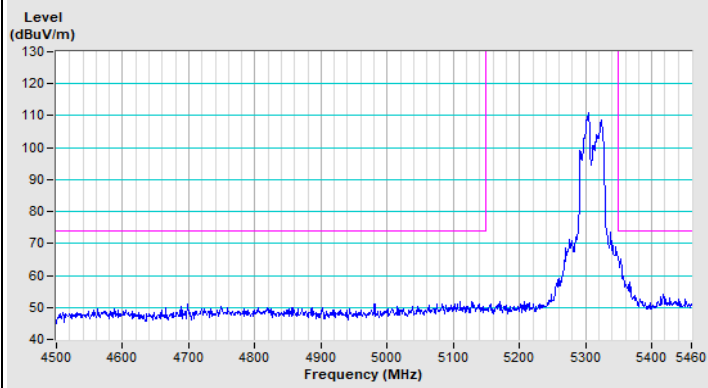


Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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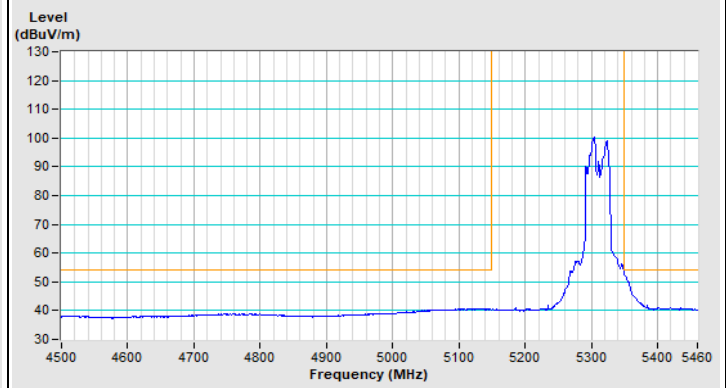
### 802.11ax (HE40) Channel 54



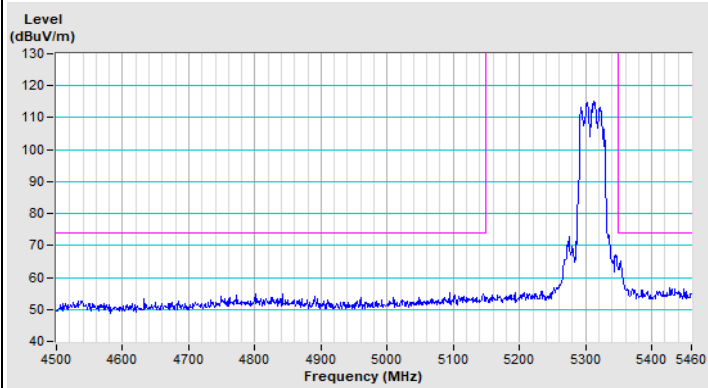
### 802.11ax (HE40) Channel 62



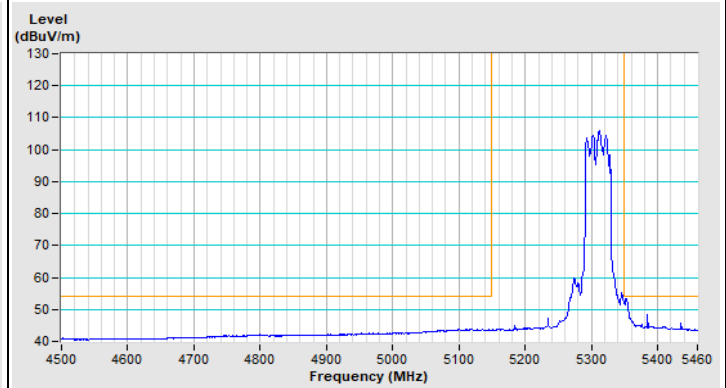
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

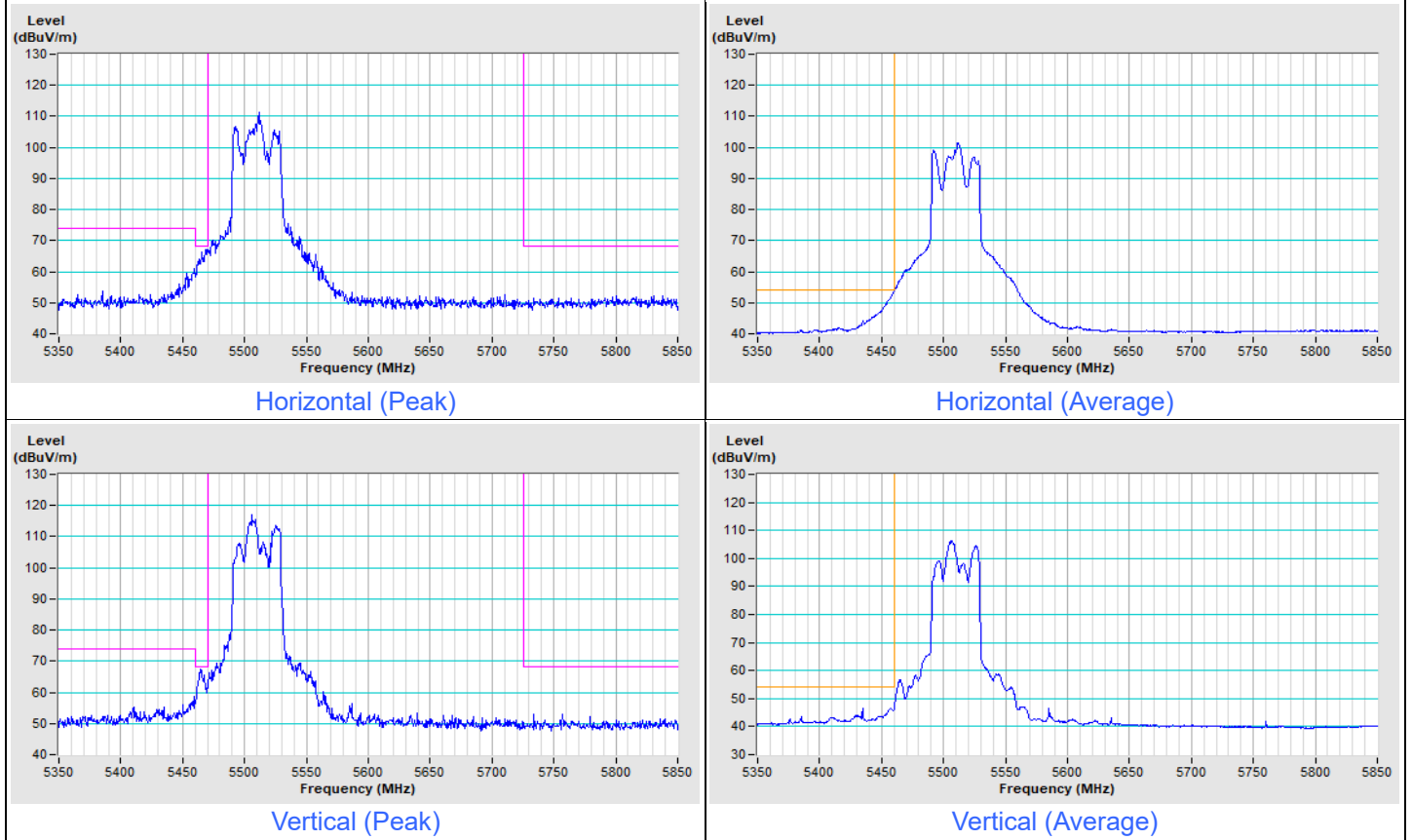


Vertical (Average)



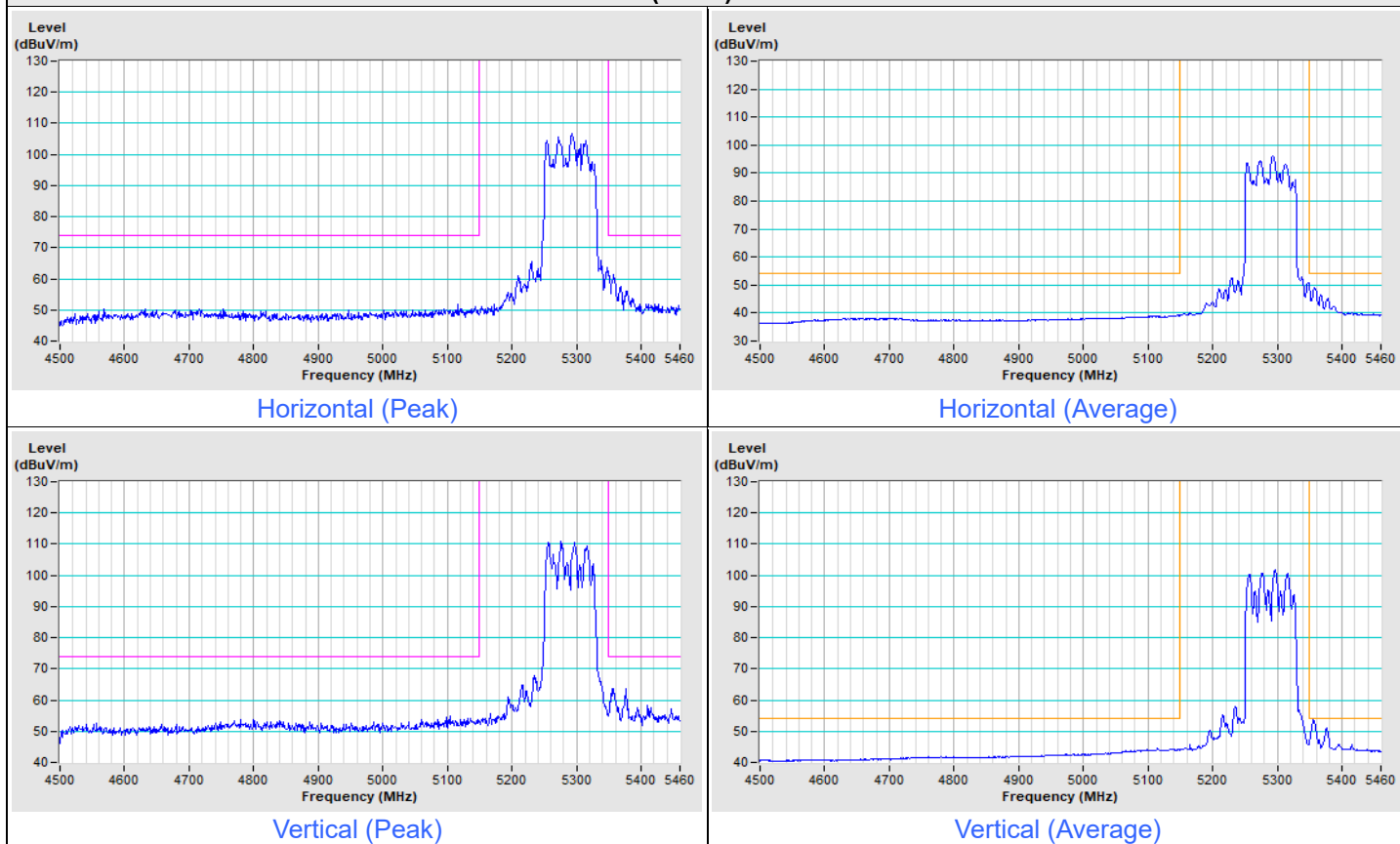
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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### 802.11ax (HE40) Channel 102



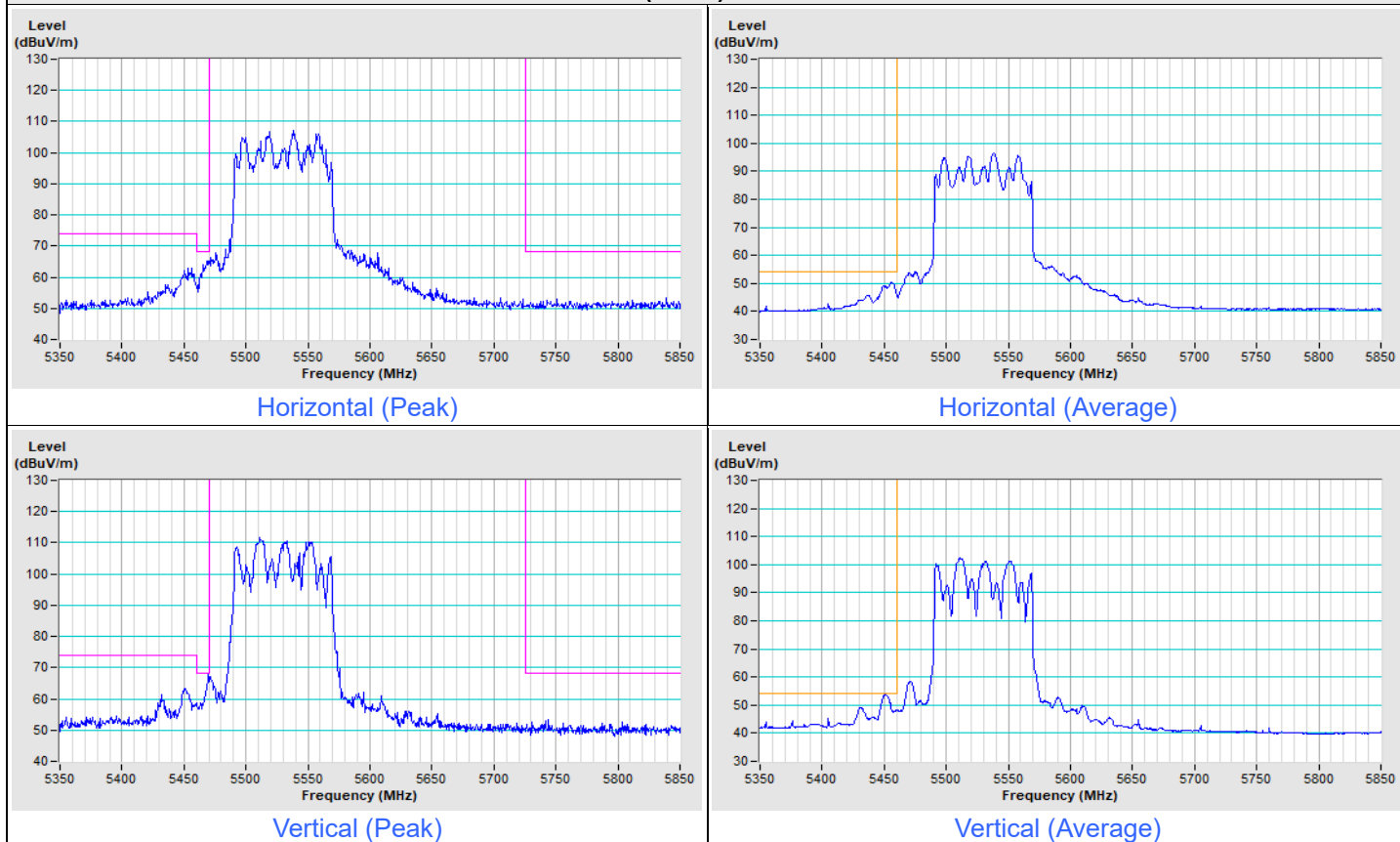
Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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**802.11ax (HE80) Channel 58**



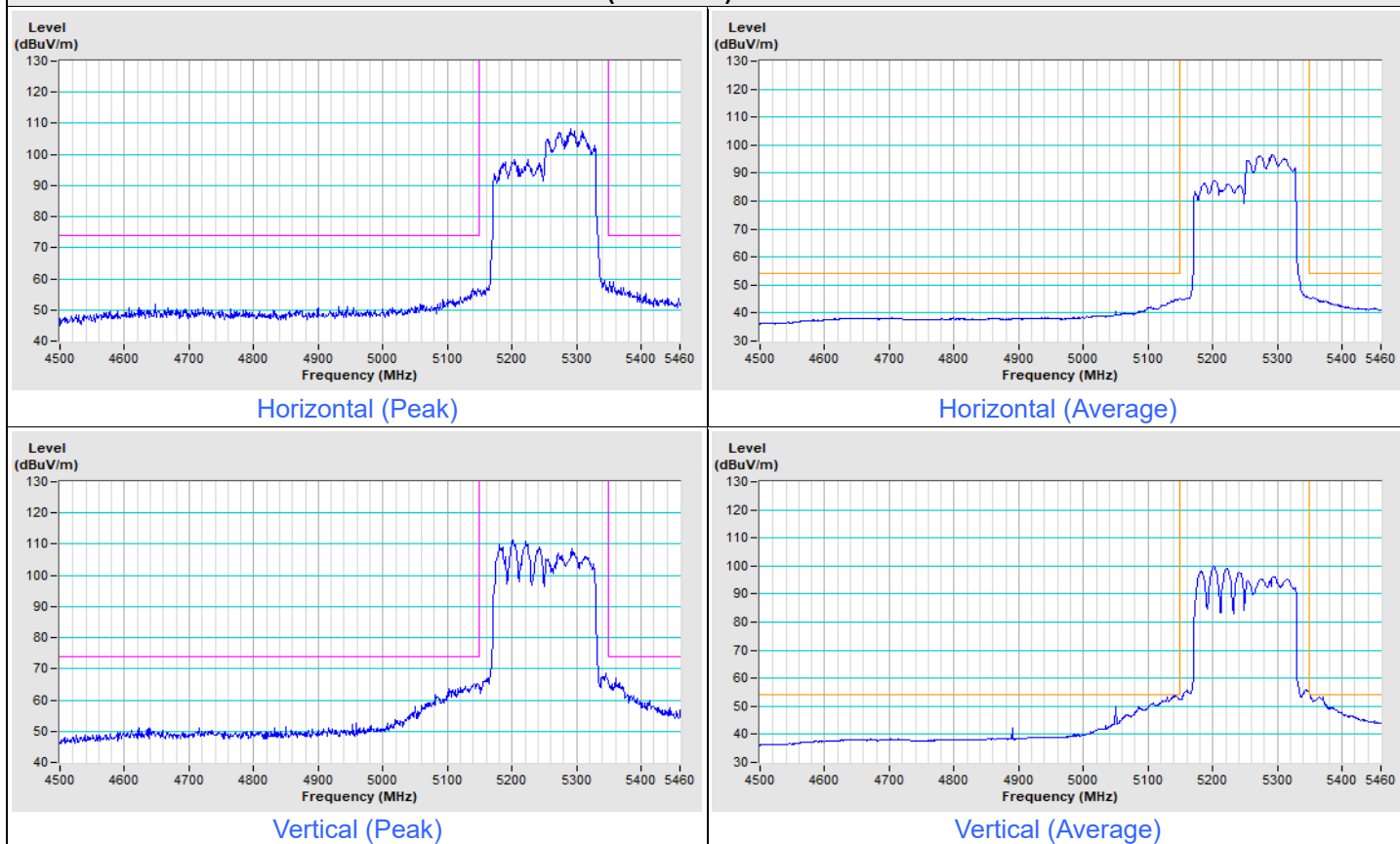
Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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### 802.11ax (HE80) Channel 106



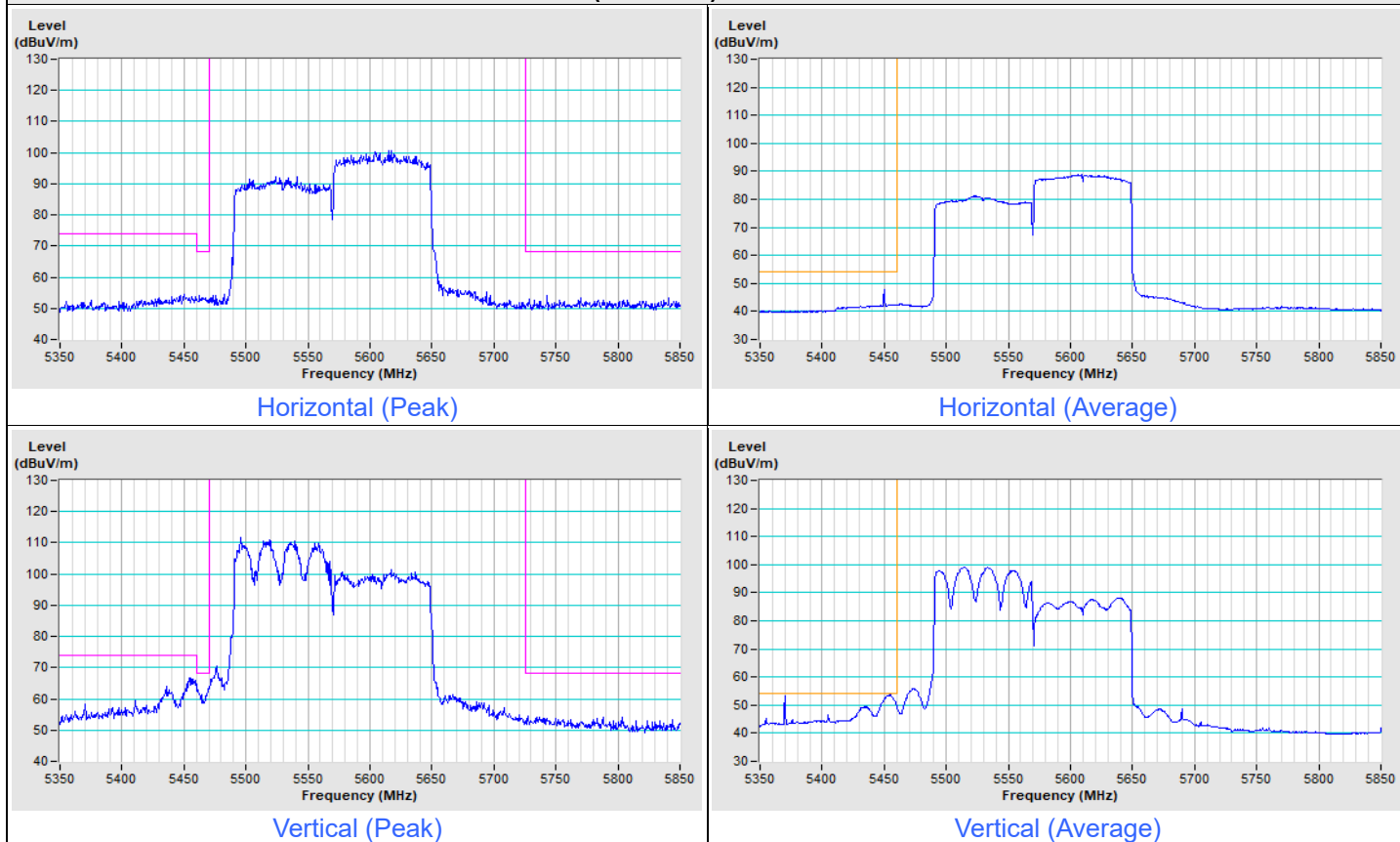
Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
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**802.11ax (HE80+80) Channel 42+58**



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=200 Hz, DET=Peak
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**802.11ax (HE80+80) Channel 106+122**



## 8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)



## 9 Information of the Testing Laboratories

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

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

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