

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBENL-WTW-P22070904-1

FCC ID: RYK-WNFQ269AXB

Product: 802.11ax/ac/a/b/g/n Wi-Fi + BT M.2 card

Brand: Sparklan

Model No.: WNFQ-269AX(BT)

Received Date: 2022/7/31

Test Date: 2022/10/25 ~ 2023/1/11

Issued Date: 2023/2/6

Applicant: SparkLAN Communications, 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:** 2023/2/6
May Chen / Manager

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Prepared by : Vivian Huang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBENL-WTW-P22070904-1	Original release.	2023/2/6

1 Certificate

Product: 802.11ax/ac/a/b/g/n Wi-Fi + BT M.2 card

Brand: Sparklan

Test Model: WNFQ-269AX(BT)

Sample Status: Engineering sample

Applicant: SparkLAN Communications, Inc.

Test Date: 2022/10/25 ~ 2023/1/11

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	NA	Refer to Note 1 below
15.407(a)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	NA	Refer to Note 1 below
15.407(e)	6 dB Bandwidth	NA	Refer to Note 1 below
---	Occupied Bandwidth	NA	Refer to Note 1 below
15.407(g)	Frequency Stability	NA	Refer to Note 1 below
15.407(b)(9)	AC Power Conducted Emissions	NA	Refer to Note 1 below
15.407(b)(9)	Unwanted Emissions below 1 GHz	NA	Refer to Note 1 below
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.5 dB at 5150.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is i-pex (MHF 4L), RP-SMA (M) not a standard connector.

Notes:

1. RF Output Power & Unwanted Emissions above 1 GHz were performed for this addendum. The others testing data refer to original test report. (Original FCC ID: J9C-QCNFA765, Report No.: RF201119E01-1).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Parameter	Specification	Expanded Uncertainty (k=2) (±)
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	802.11ax/ac/a/b/g/n Wi-Fi + BT M.2 card
Brand	Sparklan
Test Model	WNFQ-269AX(BT)
Status of EUT	Engineering sample
Power Supply Rating	3.3Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDM in 11ac mode 4096QAM for OFDMA in 11ax mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 2166.7 Mbps 802.11ax: up to 2969.7 Mbps
Operating Frequency	5.18 GHz ~ 5.25 GHz 5.25 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 (VHT160), 802.11ax (HE160): 2
Output Power	5.18 GHz ~ 5.25 GHz : 140.488 mW (21.48 dBm) 5.26 GHz ~ 5.32 GHz : 143.356 mW (21.56 dBm) 5.5 GHz ~ 5.72 GHz : 137.26 mW (21.38 dBm) 5.745 GHz ~ 5.825 GHz : 147.931 mW (21.7 dBm)
EUT Category	Client device

Note:

- This report is prepared for FCC class II permissive change. The difference compared with the original design is as the following:
 - ◆ Add Dipole antenna (Refer to section 3.2).
- According to above conditions, only RF Output Power & Unwanted Emissions above 1 GHz need to be performed. And all data are verified to meet the requirements.
- This device of WLAN (2.4GHz & 5GHz U-NII-1 Band) can support hotspot mode.
- Simultaneously transmission condition.

Condition	Technology	
1	WLAN(2.4GHz)	WLAN(6GHz)
2	WLAN(2.4GHz)	WLAN(5GHz)
3	WLAN(2.4GHz)	WLAN(5.9GHz)
4	WLAN(6GHz)	Bluetooth
5	WLAN(5GHz)	Bluetooth
6	WLAN(5.9GHz)	Bluetooth

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

- The device of WLAN (2.4GHz) and Bluetooth technology can't transmit simultaneously, it was used timely shared coexistence technology.

6. The module has two variant designs as following table:

SKU No.	Description
SKU #1	M.2 2230 E-key
SKU #2	M.2 2230 AE-key

From the above variants designs, the worst case was found in **SKU #1**. Therefore only the test data of the mode was recorded in this report.

7. The product provides option to depopulate external LNA (Low-Noise amplifier) from 5GHz/6GHz receive path. This test report covers variation of with/without external LNA and test was conducted to confirm not change in RF compliance and EMC. And worst case was found in without external LNA.
8. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified. (The worst case data were presented in section 3.4)
9. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Original									
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range	Cable Loss (dB)	Antenna Type	Connector Type	Cable Length
1	Chain0/1	HONGBO	260-25094	3.53	2.4~2.4835 GHz	0.76	PIFA	i-pex(MHF 4L)	300mm
				3.06	5.15~5.25 GHz	1.16			
				3.07	5.25~5.35 GHz	1.18			
				4.81	5.47~5.725 GHz	1.2			
				4.2	5.725~5.850 GHz	1.27			
2	Chain0/1	HONGBO	260-25083	5.09	5.850~5.895 GHz	1.29	PIFA	i-pex(MHF 4L)	300mm
				5.14	5.925~6.425 GHz	1.32			
				5.09	6.425~6.525 GHz	1.35			
				5.16	6.525~6.875 GHz	1.4			
				5.12	6.875~7.125 GHz	1.45			
3	Chain0/1	HONGBO	260-25084	3.22	2.4~2.4835 GHz	0.5	Monopole	i-pex(MHF 4L)	200mm
				3.35	5.150~5.250 GHz	0.76			
				3.42	5.250~5.350 GHz	0.78			
				4.77	5.470~5.725 GHz	0.81			
				4.72	5.725~5.850 GHz	0.85			
				4.71	5.850~5.895 GHz	0.86			
				4.75	5.925~6.425 GHz	0.87			
				4.29	6.425~6.525 GHz	0.91			
				4.81	6.525~6.875 GHz	0.96			
				4.74	6.875~7.125 GHz	0.98			
Newly									
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range	Antenna Type	Connector Type	Cable Length	
4	Chain0/1	SparkLAN	AD-510AX	2.27	2.4~2.4835 GHz	Dipole	RP-SMA (M)	150mm	
				2.88	5.150~5.825 GHz				
				2.6	5.850~5.895 GHz				
				3.23	5.925~6.425 GHz				
				3.34	6.425~6.525 GHz				
				3.52	6.525~6.875 GHz				
3.52	6.875~7.125 GHz								
5	Chain0/1	SparkLAN	AD-103AG (UHW0935A4)	2.02	2.4~2.4835 GHz	Dipole	RP-SMA (M)	150mm	
				2.03	5.150~5.850 GHz				
				1.9	5.850~5.895 GHz				
6	Chain0/1	SparkLAN	AD-302N	3.14	2.4~2.4835 GHz	Dipole	RP-SMA (M)	150mm	
				2.87	5.150~5.850 GHz				
				1.63	5.850~5.895 GHz				

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

2. The EUT incorporates a MIMO function:

5.9 GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ac (VHT160)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX
802.11ax (RU26/52/106/242/484/996/1992)	2TX	2RX

Note:

1. The EUT support Beamforming and non-beamforming mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data (non-beamforming mode) were presented in test report.
2. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz, 160MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax mode or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

FOR 5180 ~ 5320 MHz

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

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

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

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

2 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

1 straddle channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
50	5250 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		

1 straddle channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
114	5570 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

3.4 Test Mode Applicability and Tested Channel Detail

Worst Case:	<ol style="list-style-type: none"> 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). The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane
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Following channel(s) was (were) selected for the final test as listed below:

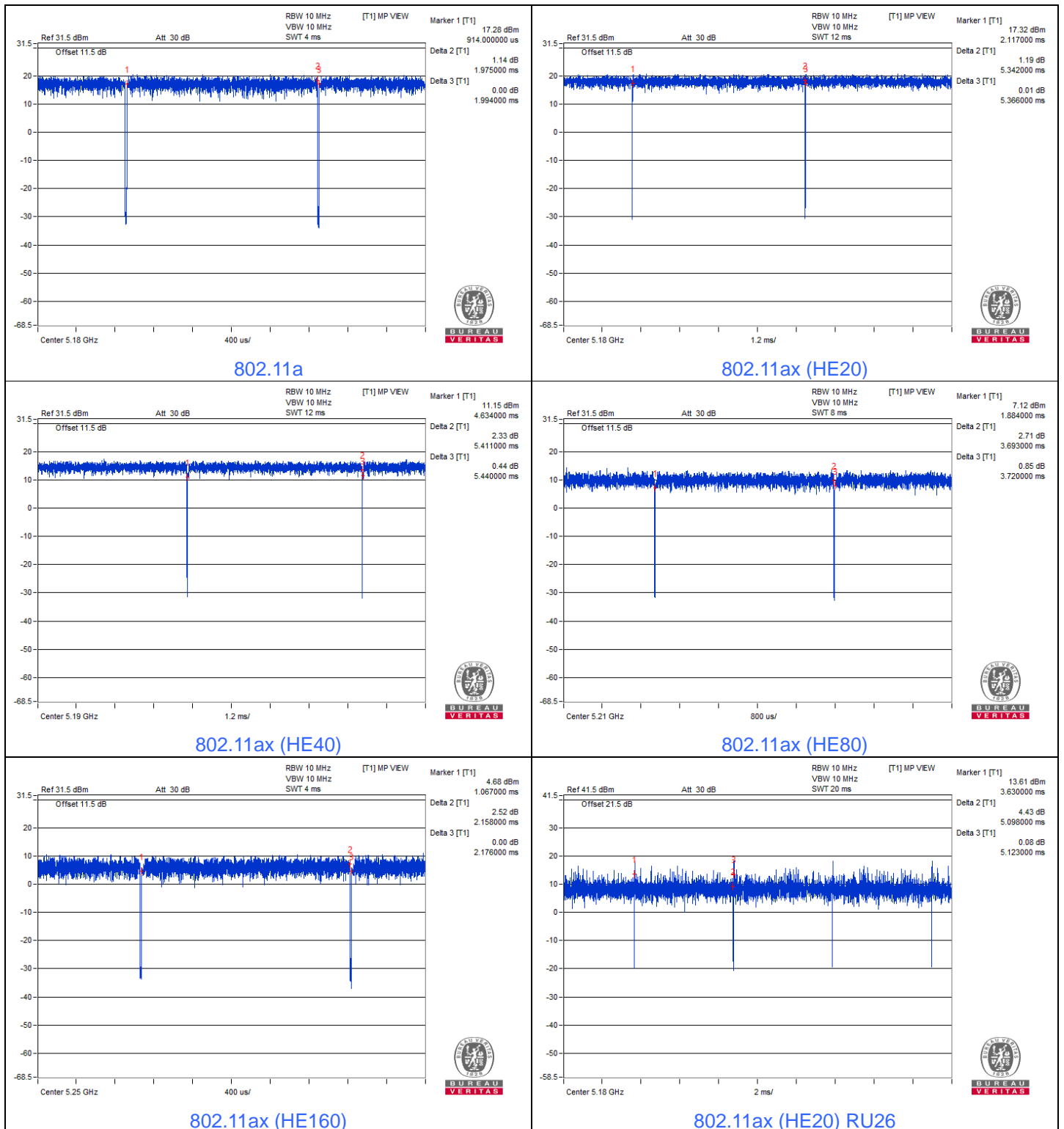
Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter	RU Configuration
RF Output Power	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s	-
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0	-
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0	-
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0	-
	802.11ac (VHT160)	50, 114	BPSK	MCS0	-
	802.11ax (HE20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0	-
	802.11ax (HE40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0	-
	802.11ax (HE80)	42, 58, 106, 122, 138, 155	BPSK	MCS0	-
	802.11ax (HE160)	50, 114	BPSK	MCS0	-
	20 MHz Preamble 802.11ax (RU26)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0	26/0, 26/4, 26/8
	20 MHz Preamble 802.11ax (RU52)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0	52/37, 52/38, 52/40
	20 MHz Preamble 802.11ax (RU106)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0	106/53, 106/54
	Unwanted Emissions above 1 GHz	802.11a	36, 64, 100, 140	BPSK	6Mb/s
802.11ax (HE20)		36, 64, 100, 140	BPSK	MCS0	-
802.11ax (HE40)		38, 62, 102, 134	BPSK	MCS0	-
802.11ax (HE80)		42, 58, 106	BPSK	MCS0	-
802.11ax (HE160)		50, 114	BPSK	MCS0	-

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter	RU Configuration
	20 MHz Preamble 802.11ax (RU52)	100, 140	BPSK	MCS0	52/37, 52/40
	20 MHz Preamble 802.11ax (RU106)	36, 64, 100, 140	BPSK	MCS0	106/53, 106/54

Note: The unwanted emissions above 1GHz were performed in radiated measurement with maximum antenna gain of dipole antenna.

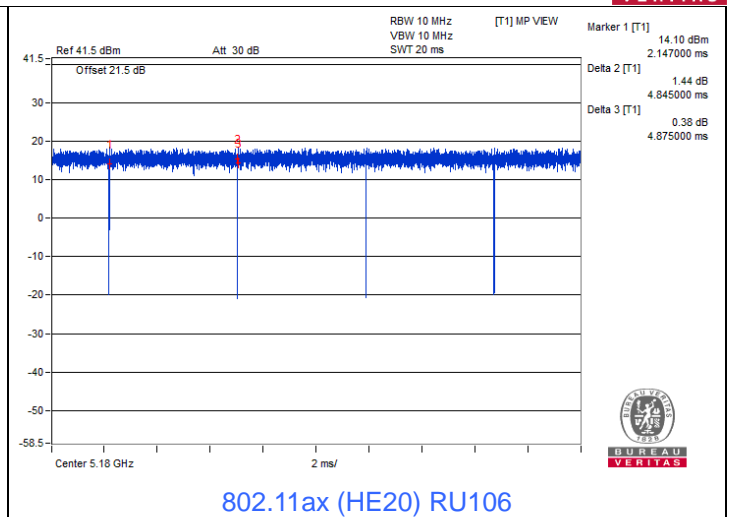
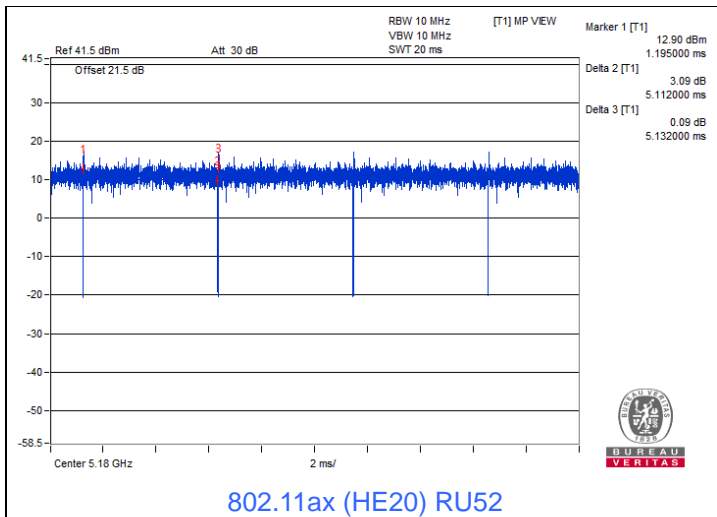
3.5 Duty Cycle of Test Signal

- 802.11a:** Duty cycle = 1.975 ms / 1.994 ms x 100% = 99.0%
- 802.11ax (HE20):** Duty cycle = 5.342 ms / 5.366 ms x 100% = 99.6%
- 802.11ax (HE40):** Duty cycle = 5.411 ms / 5.44 ms x 100% = 99.5%
- 802.11ax (HE80):** Duty cycle = 3.693 ms / 3.72 ms x 100% = 99.3%
- 802.11ax (HE160):** Duty cycle = 2.158 ms / 2.176 ms x 100% = 99.2%
- 802.11ax (HE20) RU26:** Duty cycle = 5.098 ms / 5.123 ms x 100% = 99.5%
- 802.11ax (HE20) RU52:** Duty cycle = 5.112 ms / 5.132 ms x 100% = 99.6%
- 802.11ax (HE20) RU106:** Duty cycle = 4.845 ms / 4.875 ms x 100% = 99.4%





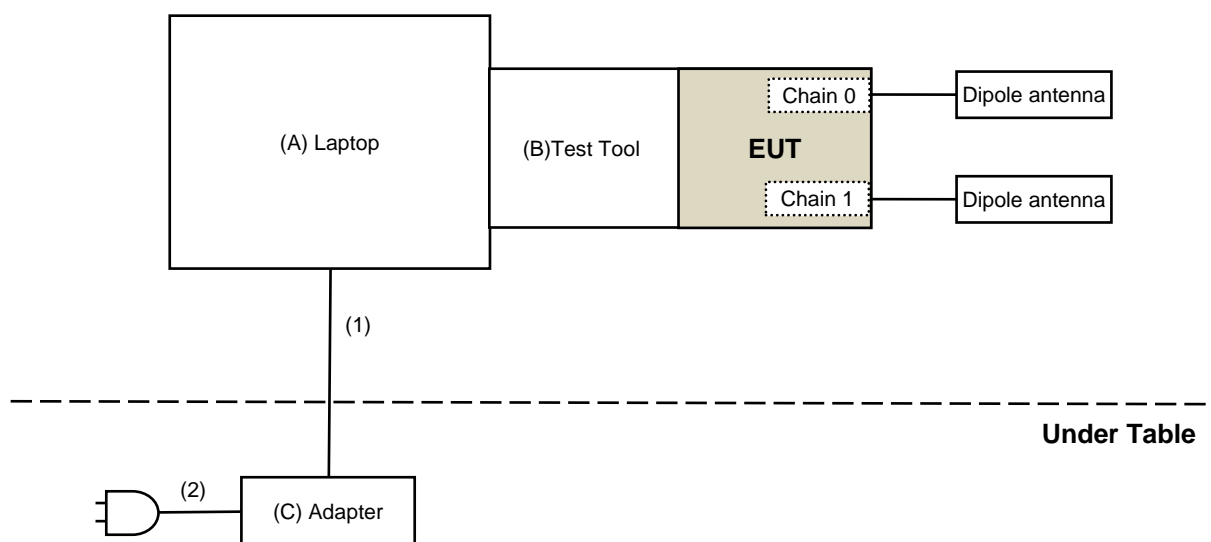
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3.6 Test Program Used and Operation Descriptions

Controlling software (qdart_conn.win.1.0_installer_00083.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Dell	E5420	FHP35S1	N/A	Provided by Lab
B	Test Tool	Fast Line	N/A	N/A	N/A	Supplied by applicant
C	Adapter	Dell	FA65NE0-00	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Provided by Lab
2	AC Cable	1	1	No	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2022/3/11	2023/3/10

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/10/25

4.2 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 9170	9170-739	2022/11/13	2023/11/12
	BBHA9120-D	9120D-406	2022/11/13	2023/11/12
Pre_Amplifier EMCI	EMC12630SE	980384	2022/1/10	2023/1/9
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable EMCI	EMC104-SM-SM-6000	210201	2022/5/10	2023/5/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
	EMC104-SM-SM-1500	180504	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180601	2022/6/6	2023/6/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/12/14

5 Limits of Test Items

5.1 RF Output Power

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

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

*B is the 26 dB emission bandwidth in megahertz

5.2 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) ^{*1}	PK: 68.2 (dBμV/m) ^{*1}
	PK: 10 (dBm/MHz) ^{*2}	PK: 105.2 (dBμV/m) ^{*2}
	PK: 15.6 (dBm/MHz) ^{*3}	PK: 110.8 (dBμV/m) ^{*3}
	PK: 27 (dBm/MHz) ^{*4}	PK: 122.2 (dBμV/m) ^{*4}

^{*1} beyond 75 MHz or more above of the band edge.

^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

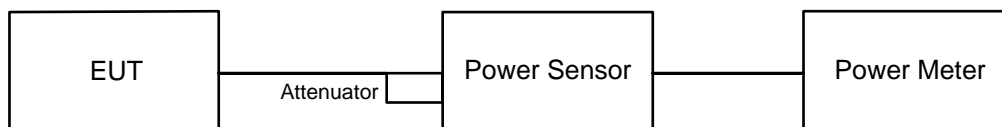
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

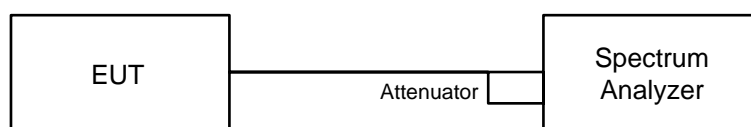
6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



For channel straddling:



6.1.2 Test Procedure

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

For channel straddling:

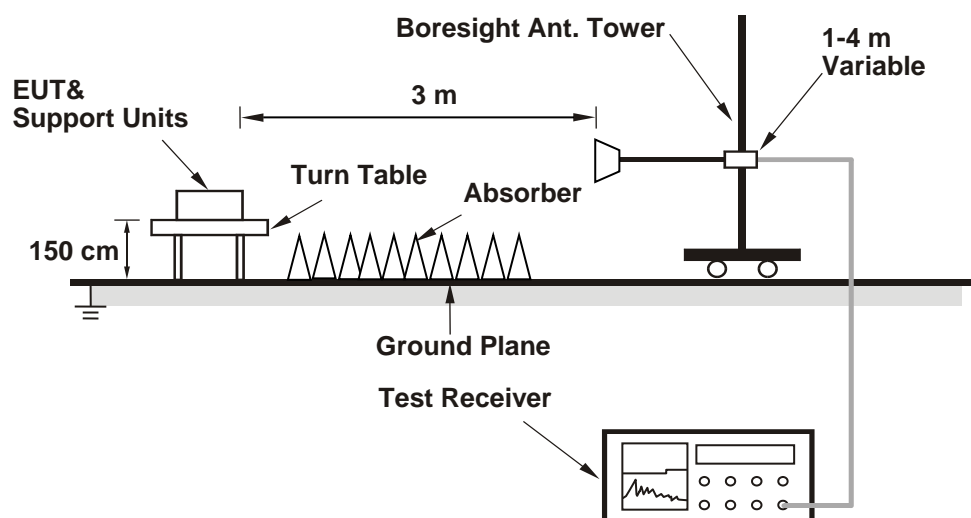
Method SA-1

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

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.

6.2 Unwanted Emissions above 1 GHz

6.2.1 Test Setup



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

6.2.2 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 RF Output Power

Input Power:	3.3 Vdc	Environmental Conditions:	24°C, 60% RH	Tested By:	Eric Peng
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802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	15.84	15.24	71.79	18.56	29.64	Pass
40	5200	18.69	18.23	140.488	21.48	29.64	Pass
48	5240	17.63	16.95	107.488	20.31	29.64	Pass
52	5260	18.77	18.07	139.457	21.44	23.57	Pass
60	5300	18.94	18.13	143.356	21.56	23.57	Pass
64	5320	16.61	15.80	83.833	19.23	23.57	Pass
100	5500	15.85	14.32	65.499	18.16	22.18	Pass
116	5580	18.40	18.33	137.26	21.38	22.18	Pass
140	5700	14.18	14.63	55.222	17.42	22.18	Pass
*144 (U-NII-2C)	5720	16.53	16.44	89.033	19.50	22.18	Pass
*144 (U-NII-3)	5720	8.73	8.49	14.528	11.62	28.27	Pass
149	5745	18.64	18.74	147.931	21.70	28.27	Pass
157	5785	18.72	18.65	147.756	21.70	28.27	Pass
165	5825	18.52	18.56	142.901	21.55	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.36 - 6) = 29.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.73 - 6) = 28.27$ dBm.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	15.80	15.22	71.285	18.53	29.64	Pass
40	5200	15.69	15.16	69.878	18.44	29.64	Pass
48	5240	15.66	15.02	68.582	18.36	29.64	Pass
52	5260	15.98	14.96	70.961	18.51	23.57	Pass
60	5300	16.05	14.83	70.681	18.49	23.57	Pass
64	5320	16.01	15.09	72.187	18.58	23.57	Pass
100	5500	15.62	14.13	62.358	17.95	22.18	Pass
116	5580	15.74	15.05	69.486	18.42	22.18	Pass
140	5700	14.03	14.55	53.803	17.31	22.18	Pass
*144 (U-NII-2C)	5720	14.41	13.68	50.94	17.07	21.14	Pass
*144 (U-NII-3)	5720	7.10	7.13	10.293	10.13	28.27	Pass
149	5745	15.05	15.69	69.057	18.39	28.27	Pass
157	5785	15.02	15.70	68.922	18.38	28.27	Pass
165	5825	14.93	15.75	68.701	18.37	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.36-6) = 29.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	14.02	13.58	48.038	16.82	29.64	Pass
46	5230	15.06	14.59	60.837	17.84	29.64	Pass
54	5270	15.57	14.68	65.434	18.16	23.57	Pass
62	5310	14.22	14.80	56.624	17.53	23.57	Pass
102	5510	14.37	12.76	46.233	16.65	22.18	Pass
110	5550	15.51	14.15	61.565	17.89	22.18	Pass
134	5670	14.91	14.94	62.163	17.94	22.18	Pass
*142 (U-NII-2C)	5710	14.24	14.07	52.073	17.17	22.18	Pass
*142 (U-NII-3)	5710	2.25	2.86	3.611	5.58	28.27	Pass
151	5755	14.58	15.26	62.282	17.94	28.27	Pass
159	5795	14.74	15.28	63.514	18.03	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.36-6) = 29.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	10.90	10.79	24.298	13.86	29.64	Pass
58	5290	11.87	12.22	32.054	15.06	23.57	Pass
106	5530	13.76	12.45	41.348	16.16	22.18	Pass
122	5610	14.83	13.92	55.069	17.41	22.18	Pass
*138 (U-NII-2C)	5690	13.78	13.61	46.84	16.71	22.18	Pass
*138 (U-NII-3)	5690	-2.63	-2.32	1.1319	0.54	28.27	Pass
155	5775	14.23	14.56	55.061	17.41	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.36 - 6) = 29.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.73 - 6) = 28.27$ dBm.

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
*50 (U-NII-1)	5250	6.98	7.53	10.651	10.27	29.64	Pass
*50 (U-NII-2A)	5250	7.04	7.40	10.554	10.23	23.57	Pass
114	5570	12.14	11.72	31.228	14.95	22.18	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.36 - 6) = 29.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	16.01	15.42	74.736	18.74	29.64	Pass
40	5200	15.71	15.21	70.429	18.48	29.64	Pass
48	5240	15.71	15.03	69.081	18.39	29.64	Pass
52	5260	15.96	15.02	71.214	18.53	23.57	Pass
60	5300	16.32	15.11	75.289	18.77	23.57	Pass
64	5320	16.06	15.11	72.799	18.62	23.57	Pass
100	5500	15.76	14.35	64.897	18.12	22.18	Pass
116	5580	15.77	15.07	69.894	18.44	22.18	Pass
140	5700	14.05	14.62	54.383	17.35	22.18	Pass
*144 (U-NII-2C)	5720	14.67	14.11	55.072	17.41	21.14	Pass
*144 (U-NII-3)	5720	7.29	7.51	10.994	10.41	28.27	Pass
149	5745	15.30	15.93	73.059	18.64	28.27	Pass
157	5785	15.24	15.91	72.414	18.60	28.27	Pass
165	5825	15.16	15.97	72.346	18.59	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.36-6) = 29.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	14.20	13.56	49.001	16.90	29.64	Pass
46	5230	15.57	14.68	65.434	18.16	29.64	Pass
54	5270	15.82	14.89	69.026	18.39	23.57	Pass
62	5310	14.49	15.01	59.815	17.77	23.57	Pass
102	5510	14.40	12.79	46.553	16.68	22.18	Pass
110	5550	15.76	14.43	65.404	18.16	22.18	Pass
134	5670	15.14	15.18	65.62	18.17	22.18	Pass
*142 (U-NII-2C)	5710	14.69	14.41	57.05	17.56	22.18	Pass
*142 (U-NII-3)	5710	2.61	3.33	3.977	6.00	28.27	Pass
151	5755	14.68	15.34	63.574	18.03	28.27	Pass
159	5795	14.77	15.31	63.954	18.06	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.36-6) = 29.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	11.12	11.02	25.589	14.08	29.64	Pass
58	5290	12.13	12.48	34.032	15.32	23.57	Pass
106	5530	13.97	12.68	43.481	16.38	22.18	Pass
122	5610	14.67	14.32	56.349	17.51	22.18	Pass
*138 (U-NII-2C)	5690	14.16	14.01	51.238	17.10	22.18	Pass
*138 (U-NII-3)	5690	-2.23	-1.90	1.2441	0.95	28.27	Pass
155	5775	14.29	14.64	55.961	17.48	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.36 - 6) = 29.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.73 - 6) = 28.27$ dBm.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
*50 (U-NII-1)	5250	7.52	8.11	12.121	10.84	29.64	Pass
*50 (U-NII-2A)	5250	7.69	7.89	12.027	10.80	23.57	Pass
114	5570	12.32	11.96	32.764	15.15	22.18	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.36 - 6) = 29.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].

802.11ax (HE20) RU26

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	12.27	11.78	31.932	15.04	23.64	Pass
40	5200	12.38	11.85	32.609	15.13	23.64	Pass
48	5240	12.23	11.79	31.812	15.03	23.64	Pass
52	5260	11.31	11.52	27.711	14.43	23.57	Pass
60	5300	12.07	11.19	29.259	14.66	23.57	Pass
64	5320	11.99	11.33	29.396	14.68	23.57	Pass
100	5500	11.10	9.05	20.918	13.21	22.18	Pass
116	5580	10.88	9.19	20.545	13.13	22.18	Pass
140	5700	9.57	10.60	20.539	13.13	22.18	Pass
*144 (U-NII-2C)	5720	10.17	10.36	21.263	13.28	21.29	Pass
*144 (U-NII-3)	5720	9.72	10.49	20.57	13.13	28.27	Pass
149	5745	14.49	14.20	54.422	17.36	28.27	Pass
157	5785	13.41	14.60	50.768	17.06	28.27	Pass
165	5825	13.96	14.72	54.537	17.37	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.36-6) = 23.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.

802.11ax (HE20) RU52

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	14.62	13.85	53.24	17.26	23.64	Pass
40	5200	14.64	13.83	53.262	17.26	23.64	Pass
48	5240	14.32	13.78	50.918	17.07	23.64	Pass
52	5260	14.45	13.74	51.52	17.12	23.57	Pass
60	5300	14.78	13.64	53.181	17.26	23.57	Pass
64	5320	14.51	13.88	52.683	17.22	23.57	Pass
100	5500	11.18	9.38	21.792	13.38	22.18	Pass
116	5580	13.63	12.14	39.436	15.96	22.18	Pass
140	5700	10.46	11.40	24.921	13.97	22.18	Pass
*144 (U-NII-2C)	5720	12.79	12.38	36.309	15.60	21.55	Pass
*144 (U-NII-3)	5720	12.40	12.10	33.596	15.26	28.27	Pass
149	5745	14.20	14.28	53.094	17.25	28.27	Pass
157	5785	13.34	14.59	50.351	17.02	28.27	Pass
165	5825	13.95	14.63	53.872	17.31	28.27	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to $24 - (6.36 - 6) = 23.64$ dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.43 - 6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.82 - 6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.73 - 6) = 28.27$ dBm.

802.11ax (HE20) RU106

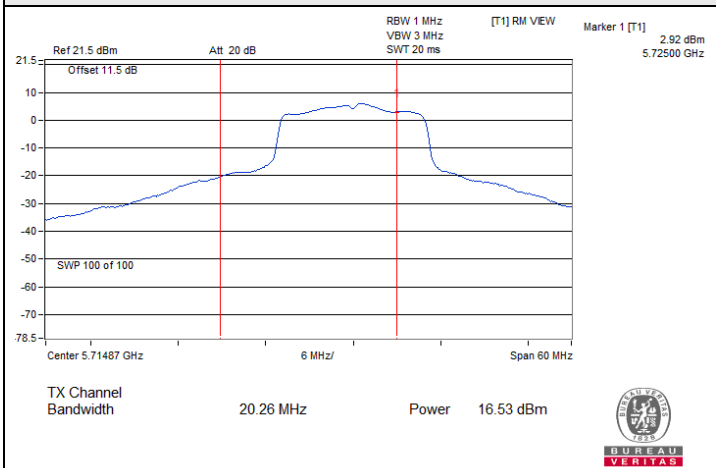
Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	14.36	13.77	51.113	17.09	23.64	Pass
40	5200	14.32	13.83	51.194	17.09	23.64	Pass
48	5240	14.35	13.73	50.832	17.06	23.64	Pass
52	5260	14.31	13.74	50.637	17.04	23.57	Pass
60	5300	14.82	13.67	53.62	17.29	23.57	Pass
64	5320	13.57	12.88	42.16	16.25	23.57	Pass
100	5500	10.96	9.43	21.244	13.27	22.18	Pass
116	5580	14.47	14.08	53.576	17.29	22.18	Pass
140	5700	10.74	11.15	24.889	13.96	22.18	Pass
*144 (U-NII-2C)	5720	14.35	14.92	58.273	17.65	21.43	Pass
*144 (U-NII-3)	5720	11.39	12.39	31.11	14.93	28.27	Pass
149	5745	14.15	14.42	53.671	17.30	28.27	Pass
157	5785	13.61	14.35	50.188	17.01	28.27	Pass
165	5825	14.15	14.56	54.578	17.37	28.27	Pass

Notes:

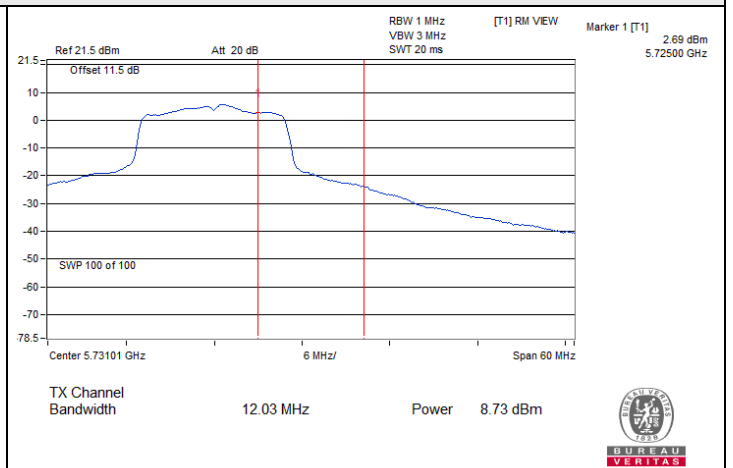
- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-1, the directional gain is 6.36 dBi > 6 dBi, so the output power limit shall be reduced to 24-(6.36-6) = 23.64 dBm.
- For U-NII-2A, the directional gain is 6.43 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.43-6)].
- For U-NII-2C, the directional gain is 7.82 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.82-6)].
- For U-NII-3, the directional gain is 7.73 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.73-6) = 28.27 dBm.



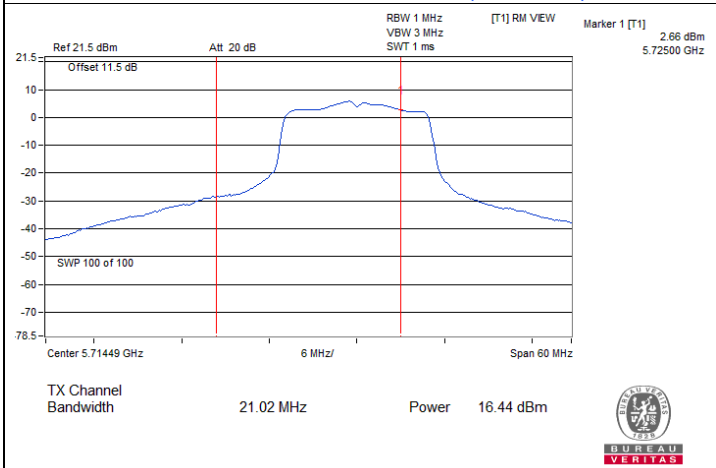
Spectrum Plot for channel straddling



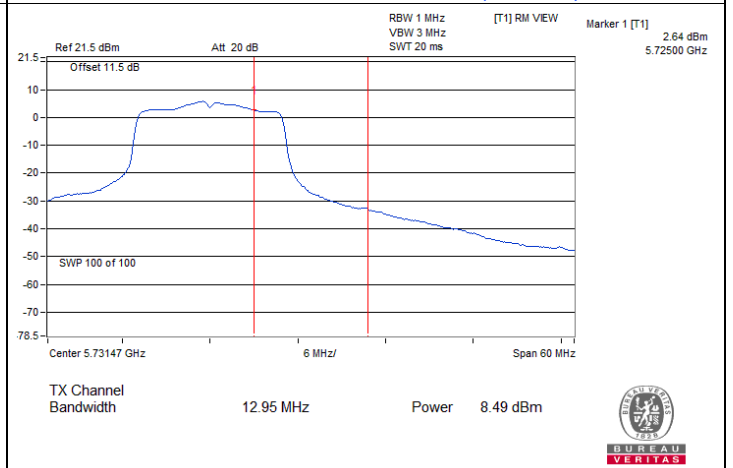
802.11a / Chain 0 : CH 144 (U-NII-2C)



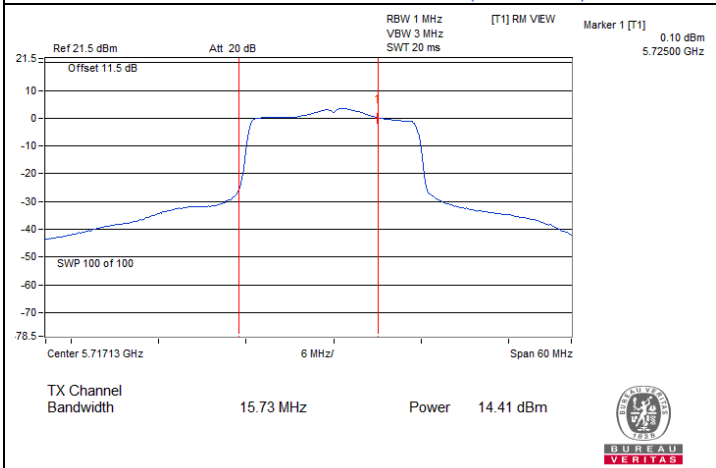
802.11a / Chain 0 : CH 144 (U-NII-3)



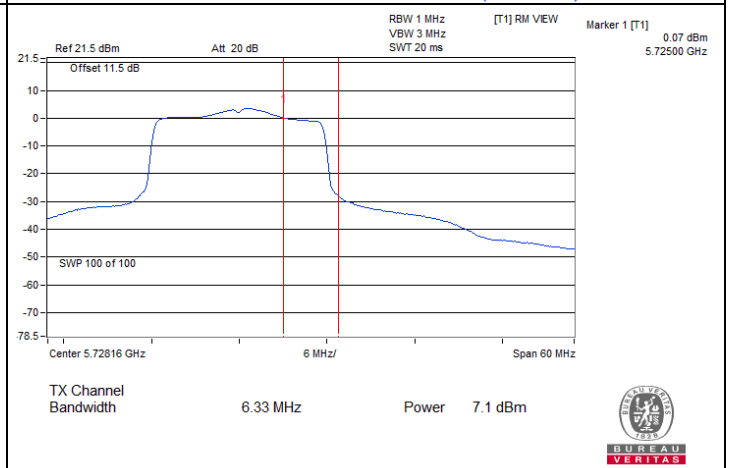
802.11a / Chain 1 : CH 144 (U-NII-2C)



802.11a / Chain 1 : CH 144 (U-NII-3)



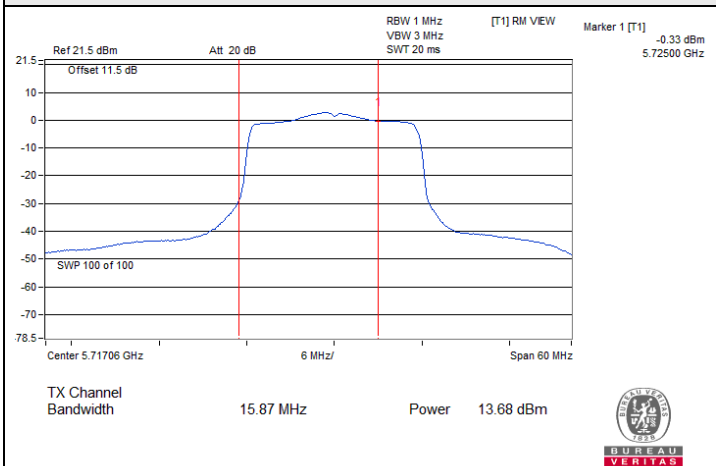
802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-2C)



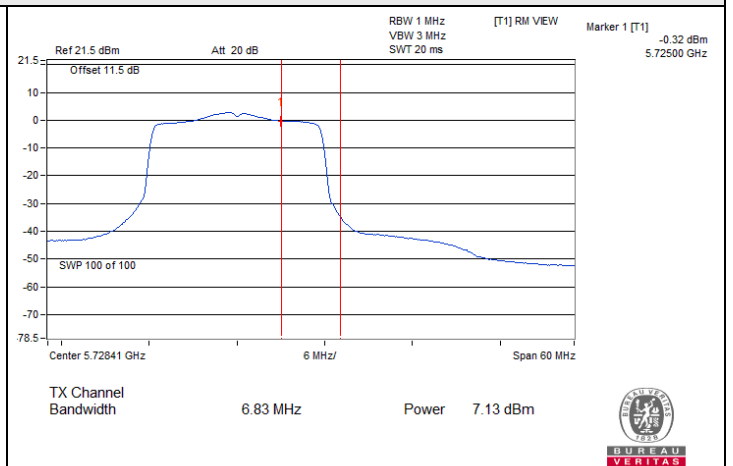
802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-3)



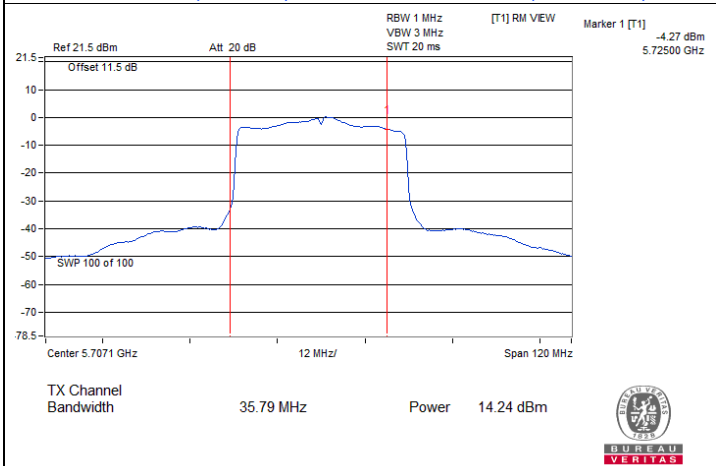
Spectrum Plot for channel straddling



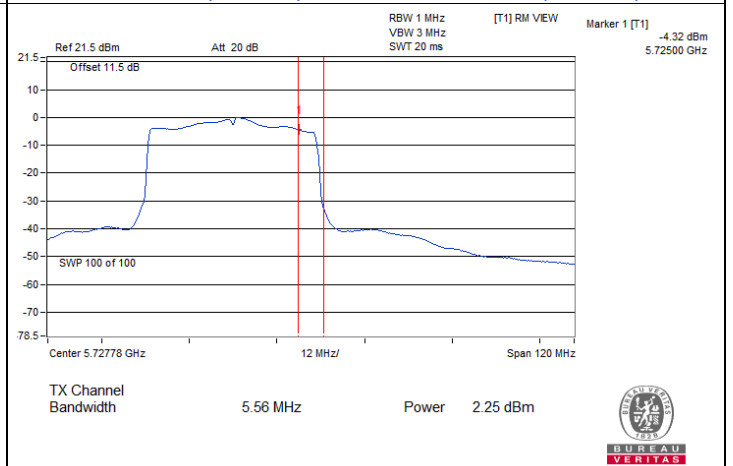
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-2C)



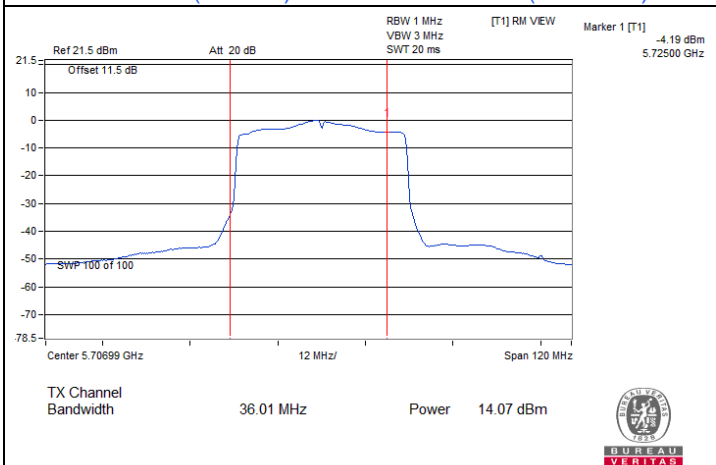
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-3)



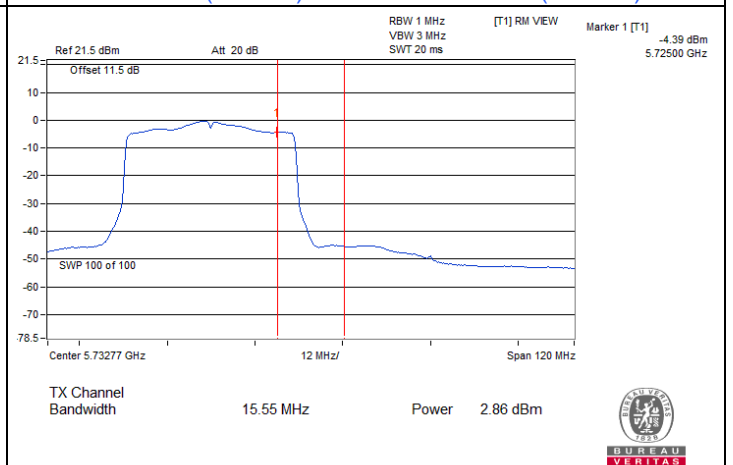
802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-2C)



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



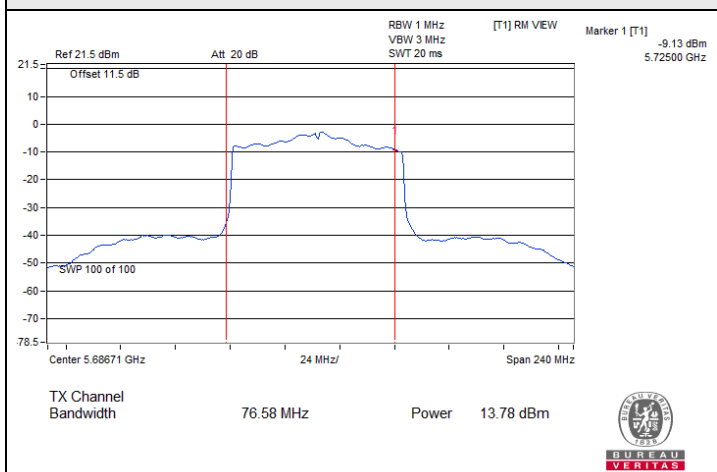
802.11ac (VHT40) / Chain 1 : CH 142 (U-NII-2C)



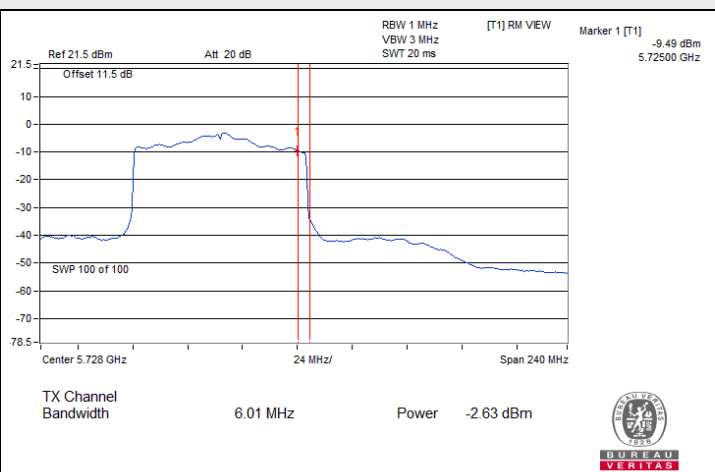
802.11ac (VHT40) / Chain 1 : CH 142 (U-NII-3)



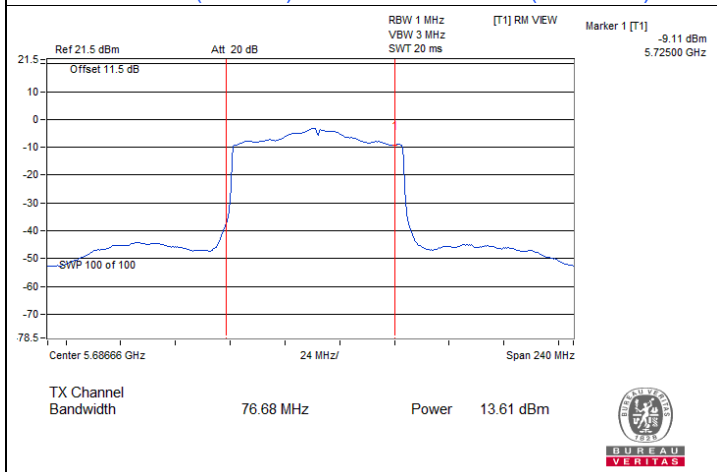
Spectrum Plot for channel straddling



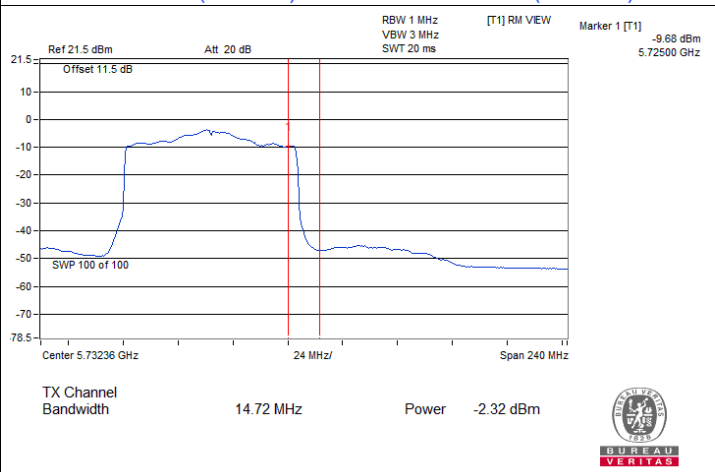
802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-2C)



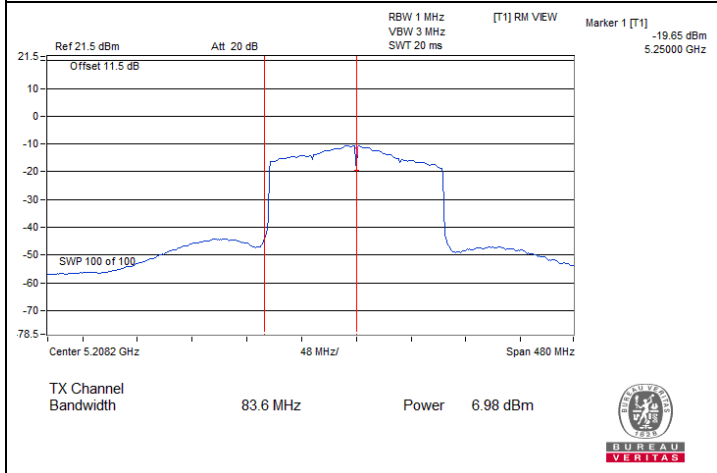
802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-3)



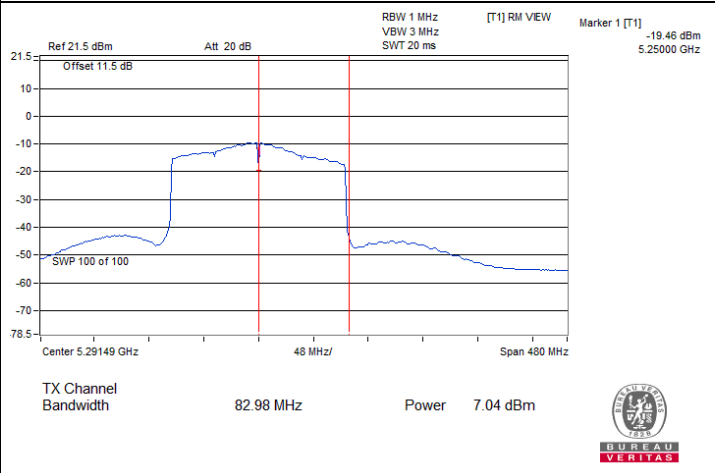
802.11ac (VHT80) / Chain 1 : CH 138 (U-NII-2C)



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



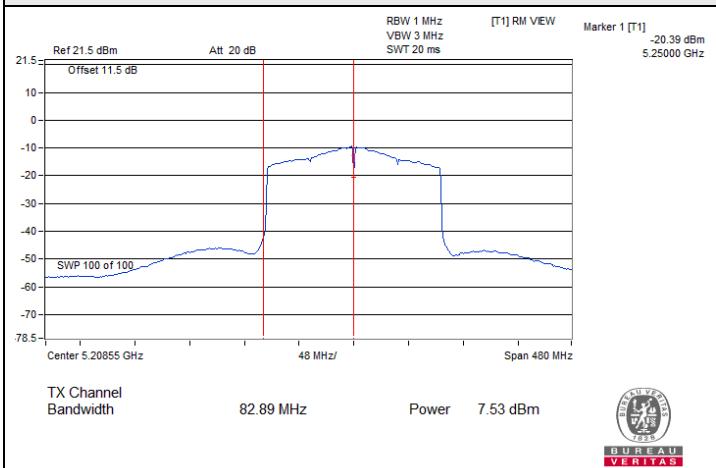
802.11ac (VHT160) / Chain 0 : CH 50 (U-NII-1)



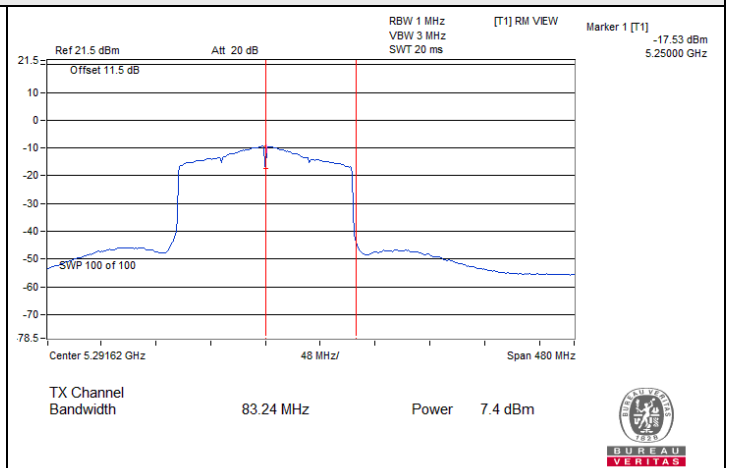
802.11ac (VHT160) / Chain 0 : CH 50 (U-NII-2A)



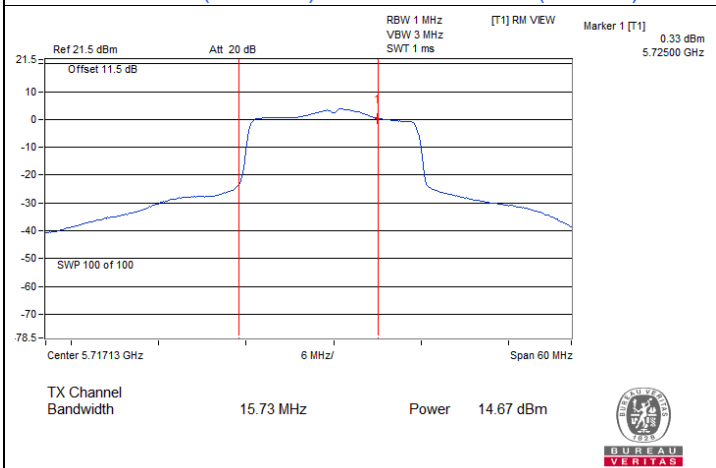
Spectrum Plot for channel straddling



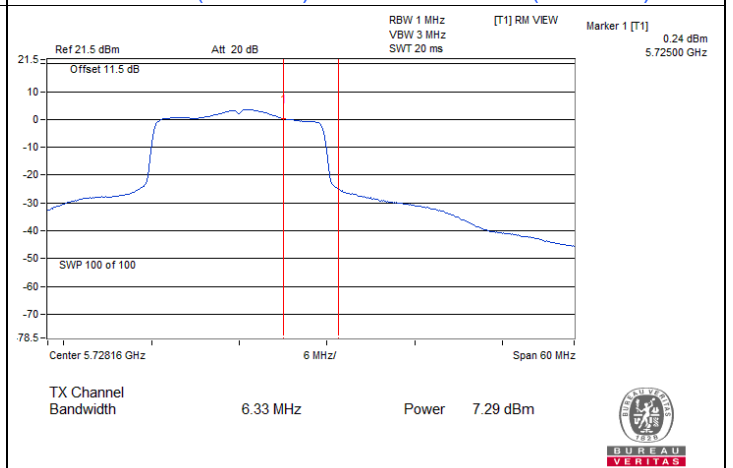
802.11ac (VHT160) / Chain 1 : CH 50 (U-NII-1)



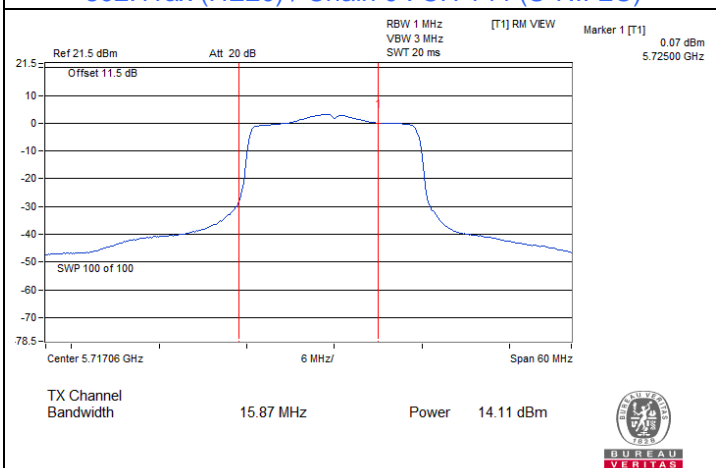
802.11ac (VHT160) / Chain 1 : CH 50 (U-NII-2A)



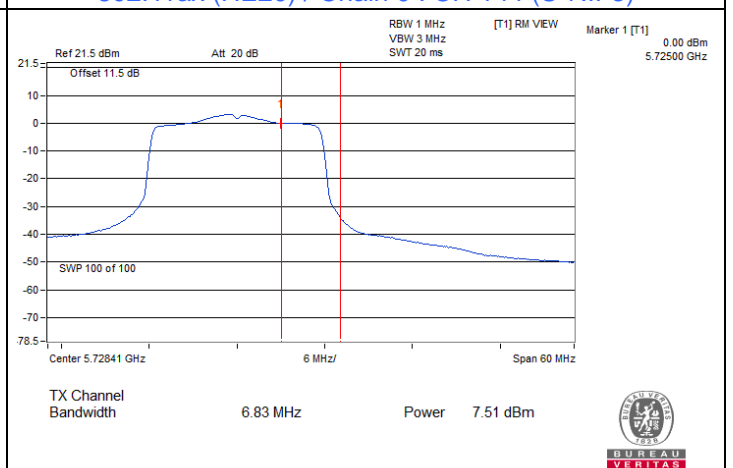
802.11ax (HE20) / Chain 0 : CH 144 (U-NII-2C)



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



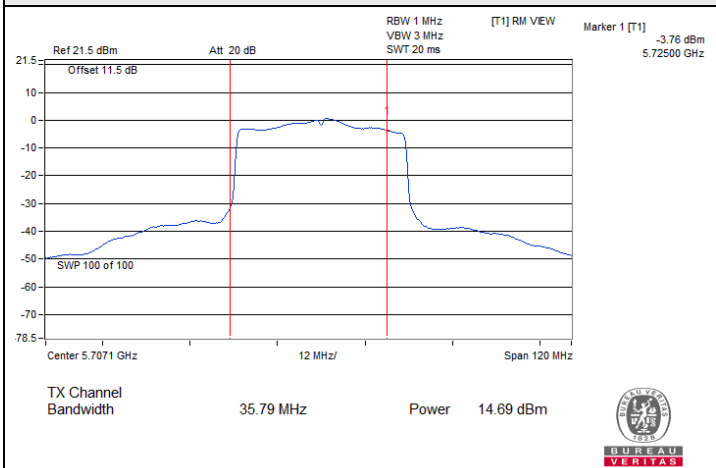
802.11ax (HE20) / Chain 1 : CH 144 (U-NII-2C)



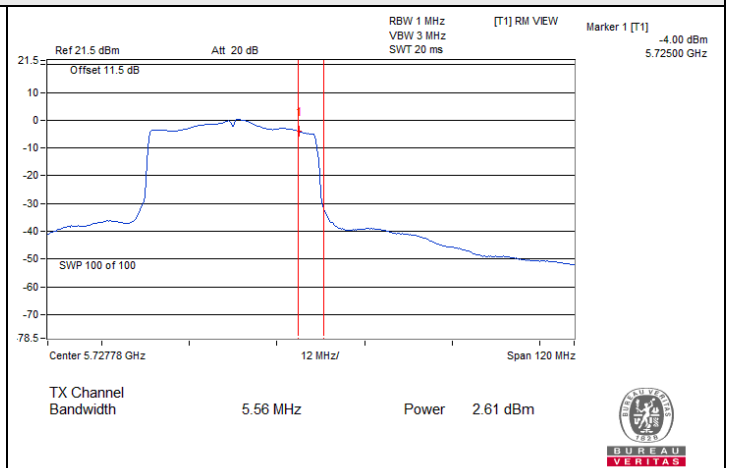
802.11ax (HE20) / Chain 1 : CH 144 (U-NII-3)



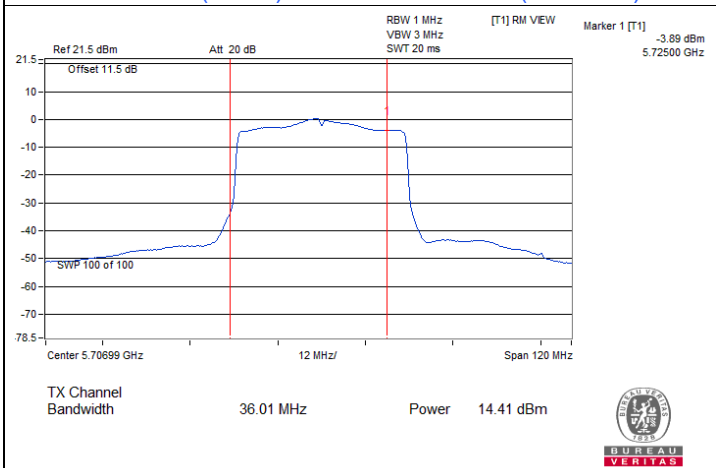
Spectrum Plot for channel straddling



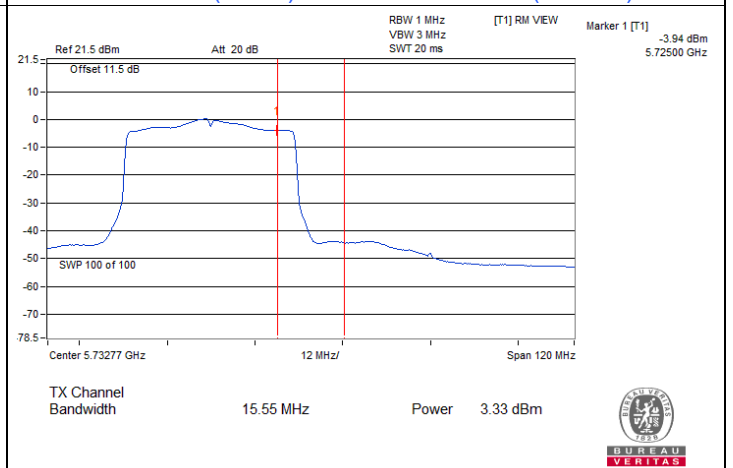
802.11ax (HE40) / Chain 0 : CH 142 (U-NII-2C)



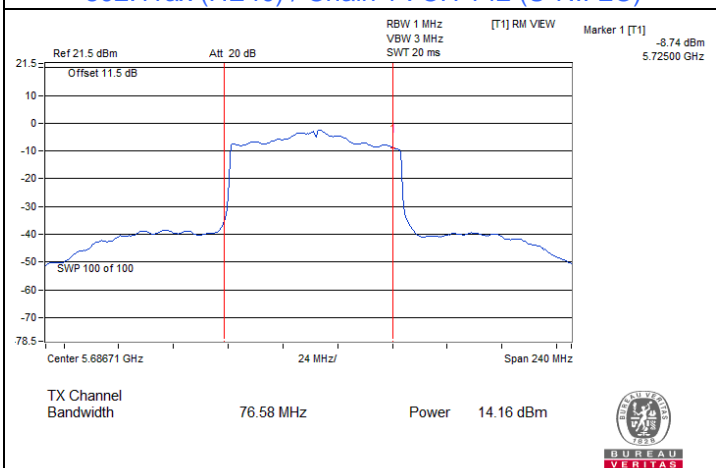
802.11ax (HE40) / Chain 0 : CH 142 (U-NII-3)



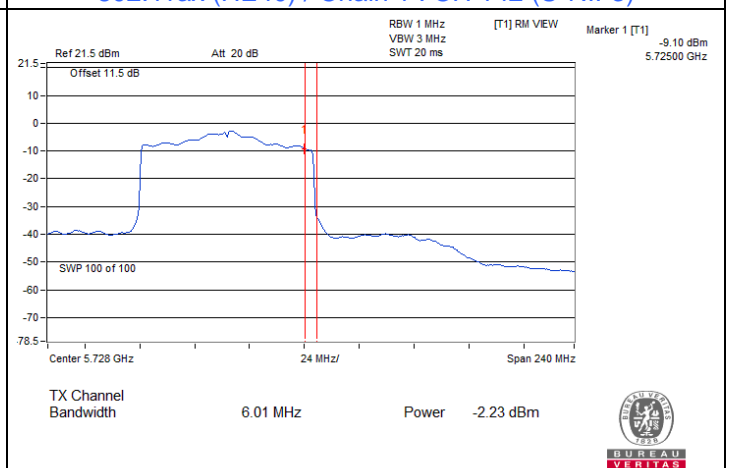
802.11ax (HE40) / Chain 1 : CH 142 (U-NII-2C)



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



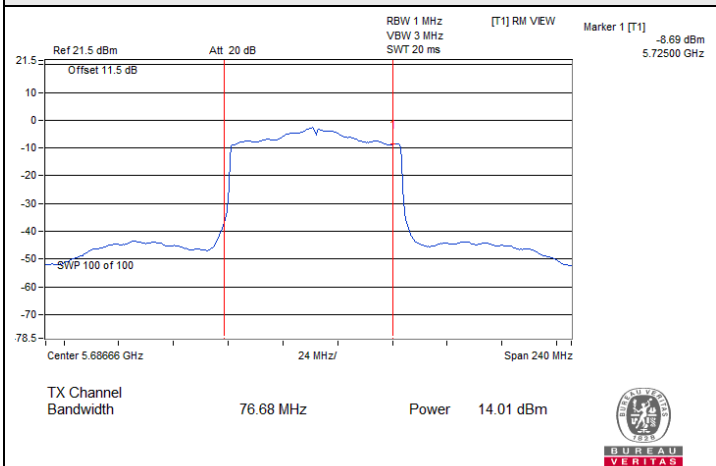
802.11ax (HE80) / Chain 0 : CH 138 (U-NII-2C)



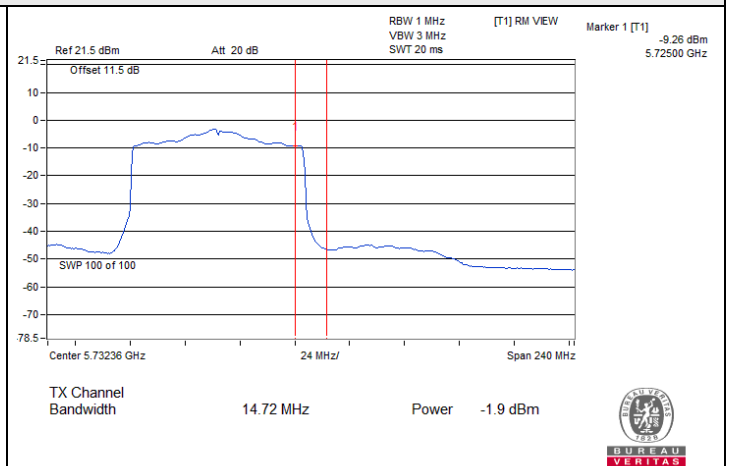
802.11ax (HE80) / Chain 0 : CH 138 (U-NII-3)



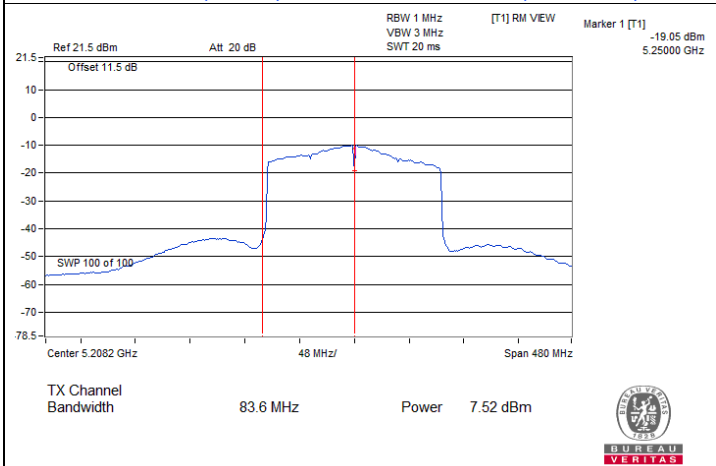
Spectrum Plot for channel straddling



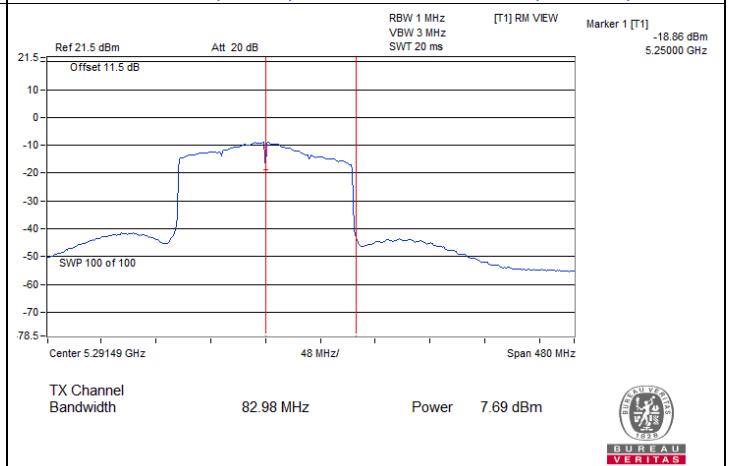
802.11ax (HE80) / Chain 1 : CH 138 (U-NII-2C)



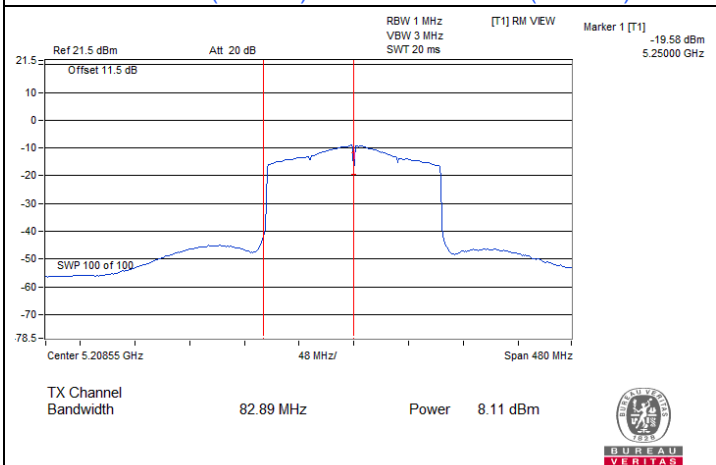
802.11ax (HE80) / Chain 1 : CH 138 (U-NII-3)



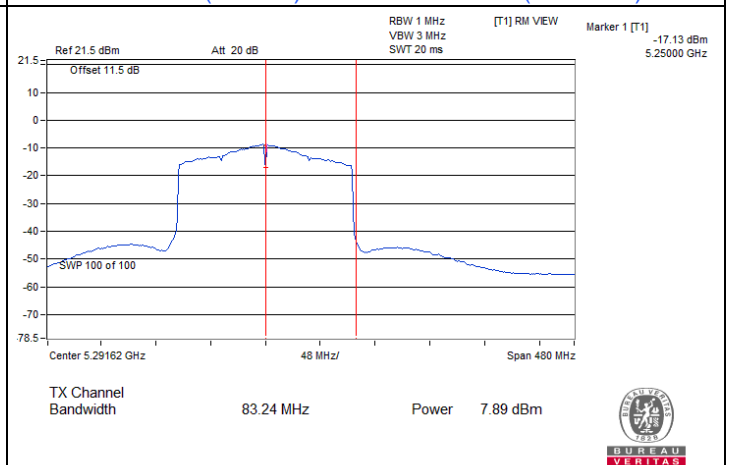
802.11ax (HE160) / Chain 0 : CH 50 (U-NII-1)



802.11ax (HE160) / Chain 0 : CH 50 (U-NII-2A)



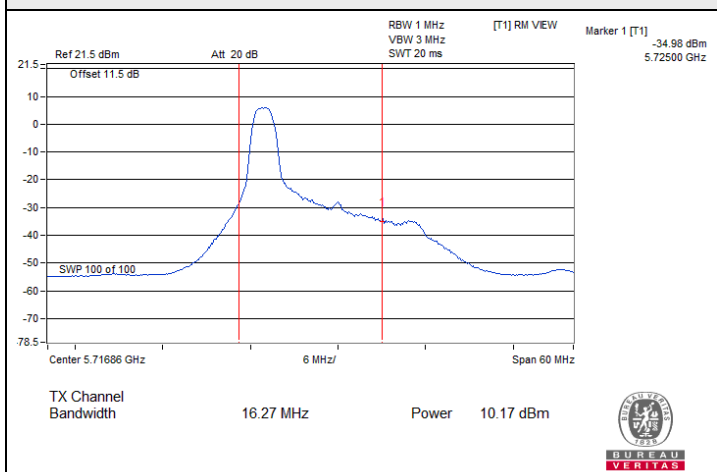
802.11ax (HE160) / Chain 1 : CH 50 (U-NII-1)



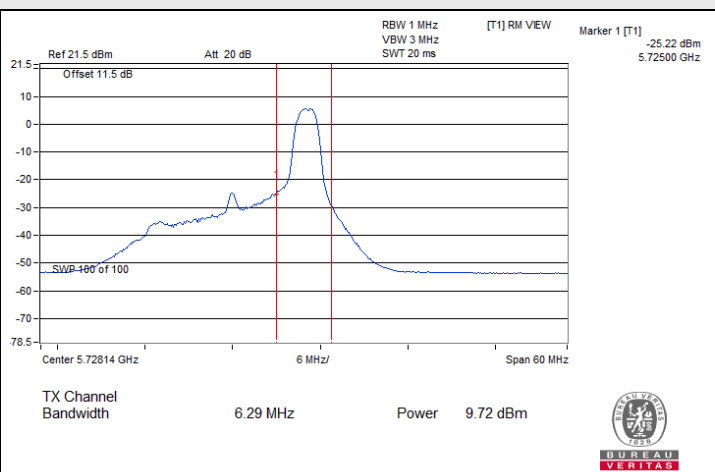
802.11ax (HE160) / Chain 1 : CH 50 (U-NII-2A)



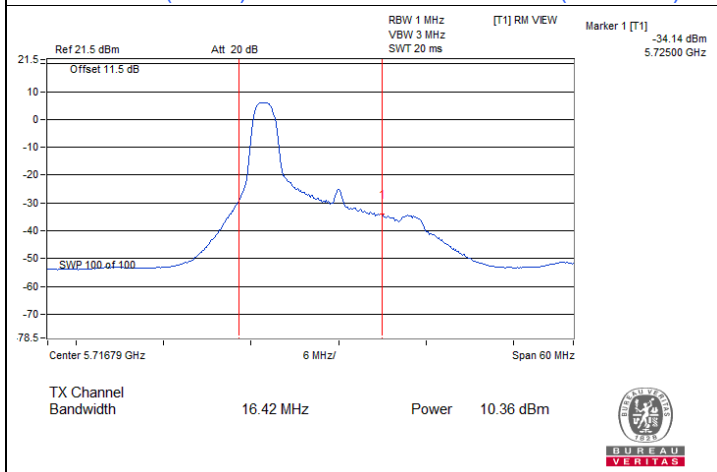
Spectrum Plot for channel straddling



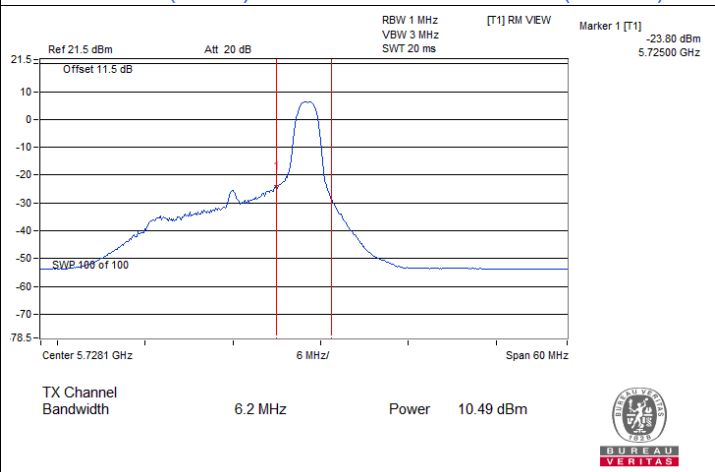
802.11ax (HE20) RU26 / Chain 0 : CH 144 (U-NII-2C)



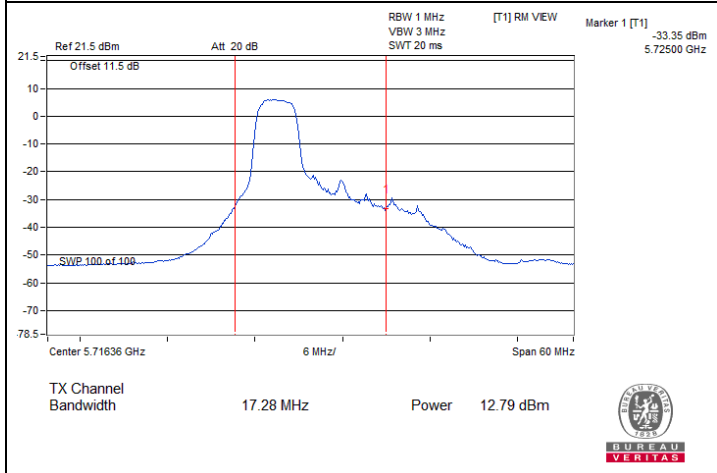
802.11ax (HE20) RU26 / Chain 0 : CH 144 (U-NII-3)



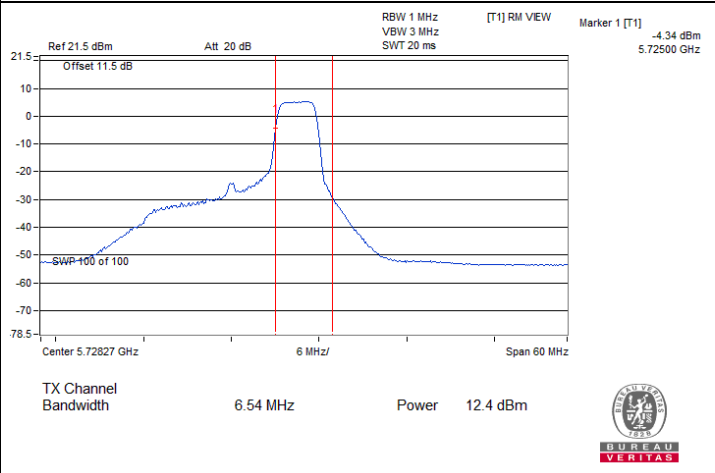
802.11ax (HE20) RU26 / Chain 1 : CH 144 (U-NII-2C)



802.11ax (HE20) RU26 / Chain 1 : CH 144 (U-NII-3)



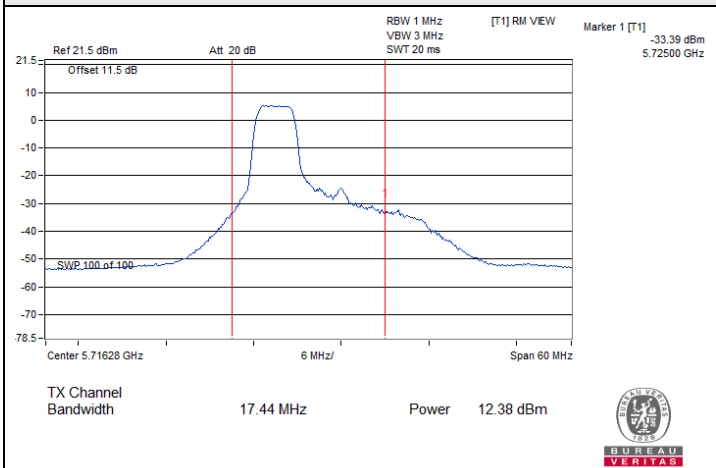
802.11ax (HE20) RU52 / Chain 0 : CH 144 (U-NII-2C)



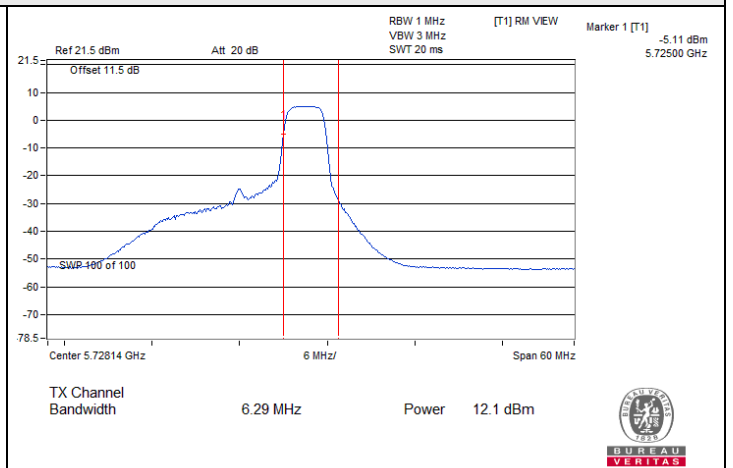
802.11ax (HE20) RU52 / Chain 0 : CH 144 (U-NII-3)



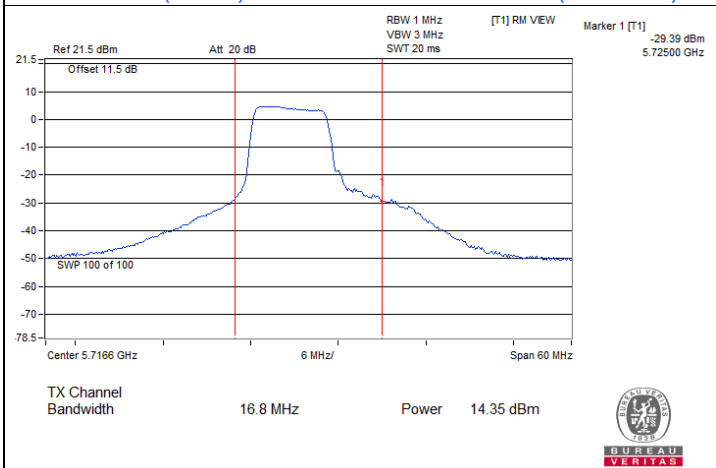
Spectrum Plot for channel straddling



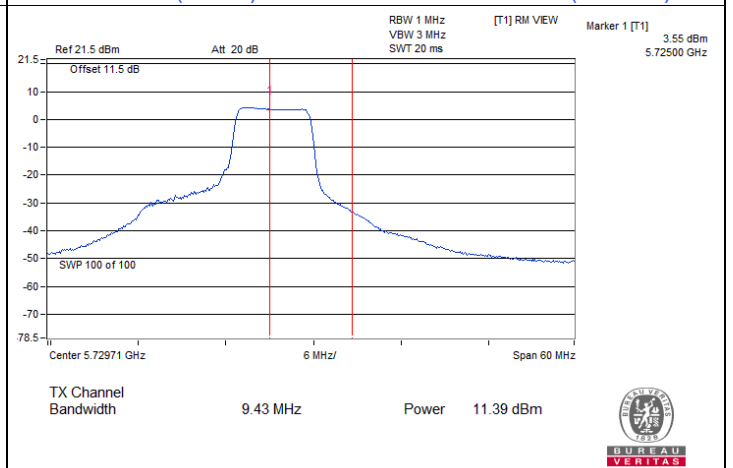
802.11ax (HE20) RU52 / Chain 1 : CH 144 (U-NII-2C)



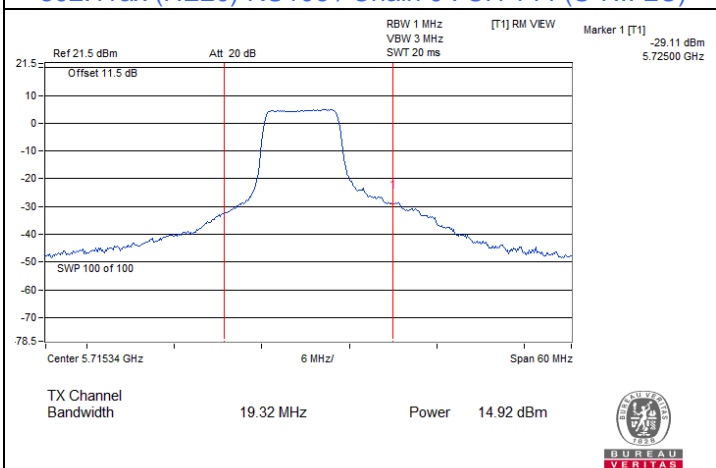
802.11ax (HE20) RU52 / Chain 1 : CH 144 (U-NII-3)



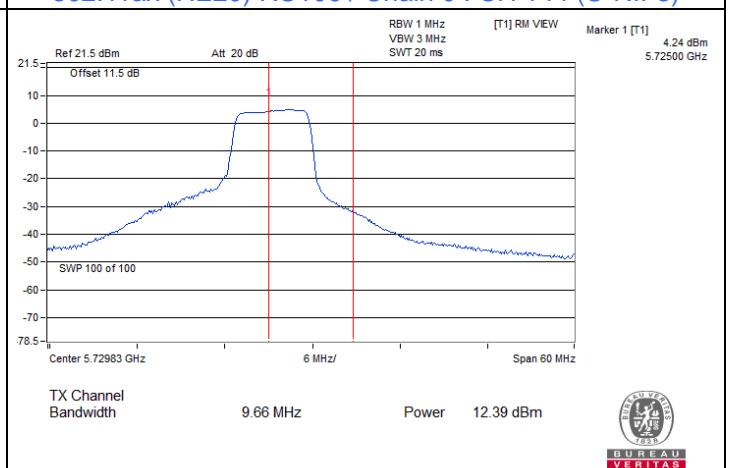
802.11ax (HE20) RU106 / Chain 0 : CH 144 (U-NII-2C)



802.11ax (HE20) RU106 / Chain 0 : CH 144 (U-NII-3)



802.11ax (HE20) RU106 / Chain 1 : CH 144 (U-NII-2C)



802.11ax (HE20) RU106 / Chain 1 : CH 144 (U-NII-3)

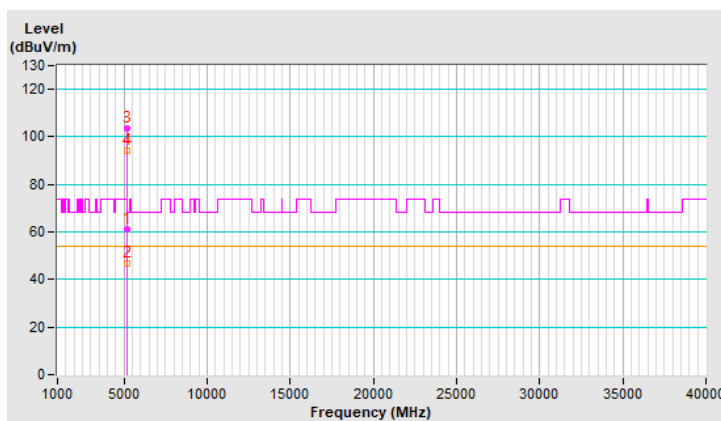
7.2 Unwanted Emissions above 1 GHz

RF Mode	802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.1 PK	74.0	-12.9	1.48 H	157	56.5	4.6
2	5150.00	46.6 AV	54.0	-7.4	1.48 H	157	42.0	4.6
3	*5180.00	103.4 PK			1.48 H	157	98.8	4.6
4	*5180.00	94.2 AV			1.48 H	157	89.6	4.6

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.

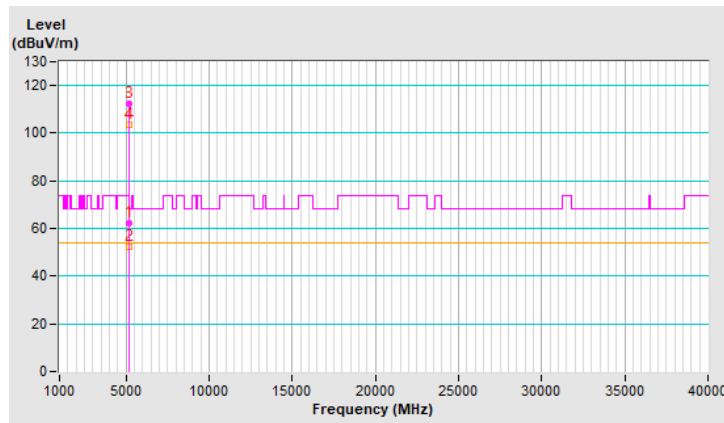


RF Mode	802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.0 PK	74.0	-12.0	2.22 V	97	57.4	4.6
2	5150.00	52.1 AV	54.0	-1.9	2.22 V	97	47.5	4.6
3	*5180.00	112.1 PK			2.22 V	97	107.5	4.6
4	*5180.00	103.3 AV			2.22 V	97	98.7	4.6

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.

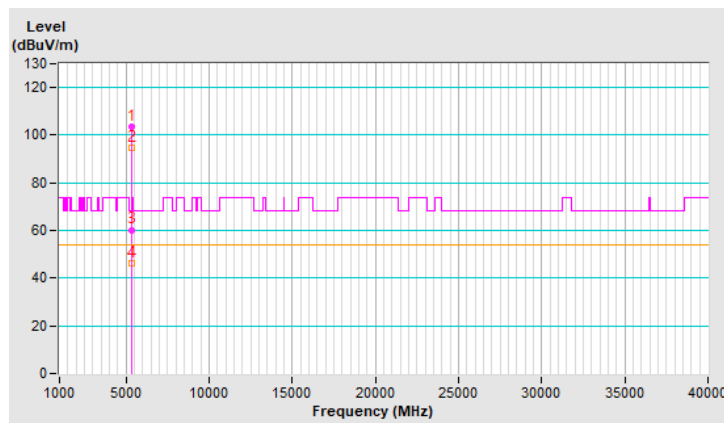


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	103.7 PK			1.54 H	152	99.3	4.4
2	*5320.00	94.5 AV			1.54 H	152	90.1	4.4
3	5350.00	60.3 PK	74.0	-13.7	1.54 H	152	55.7	4.6
4	5350.00	46.2 AV	54.0	-7.8	1.54 H	152	41.6	4.6

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.

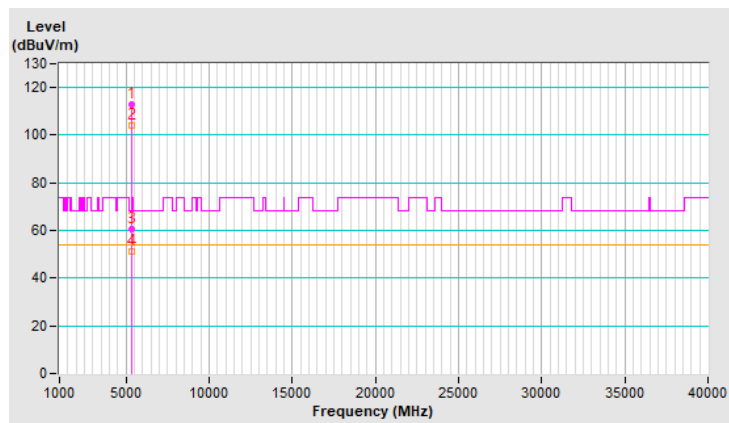


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	112.8 PK			1.28 V	127	108.4	4.4
2	*5320.00	104.0 AV			1.28 V	127	99.6	4.4
3	5350.00	60.4 PK	74.0	-13.6	1.28 V	127	55.8	4.6
4	5350.00	51.3 AV	54.0	-2.7	1.28 V	127	46.7	4.6

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.

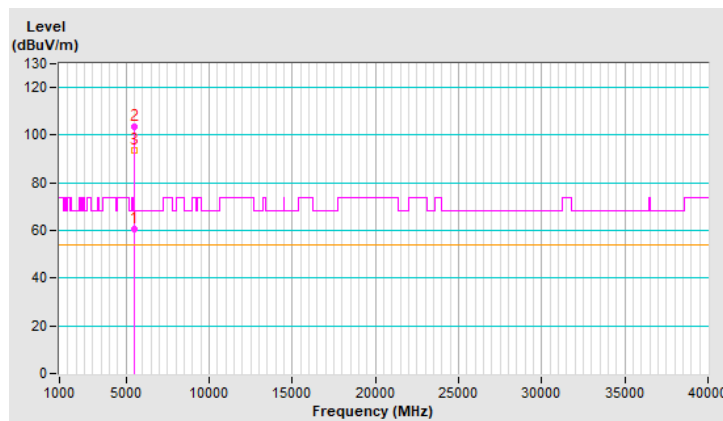


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.5 PK	68.2	-7.7	1.44 H	162	55.7	4.8
2	*5500.00	103.3 PK			1.44 H	162	98.4	4.9
3	*5500.00	93.8 AV			1.44 H	162	88.9	4.9

Remarks:

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

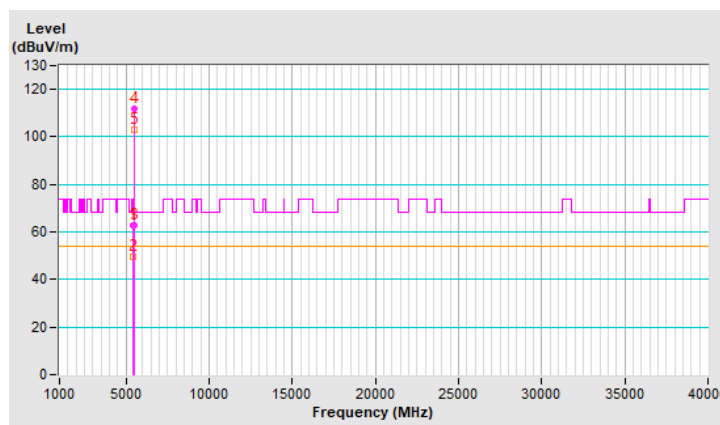


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.8 PK	74.0	-11.2	1.51 V	162	58.0	4.8
2	5460.00	49.7 AV	54.0	-4.3	1.51 V	162	44.9	4.8
3	#5470.00	63.0 PK	68.2	-5.2	1.51 V	162	58.2	4.8
4	*5500.00	111.7 PK			1.51 V	162	106.8	4.9
5	*5500.00	102.9 AV			1.51 V	162	98.0	4.9

Remarks:

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

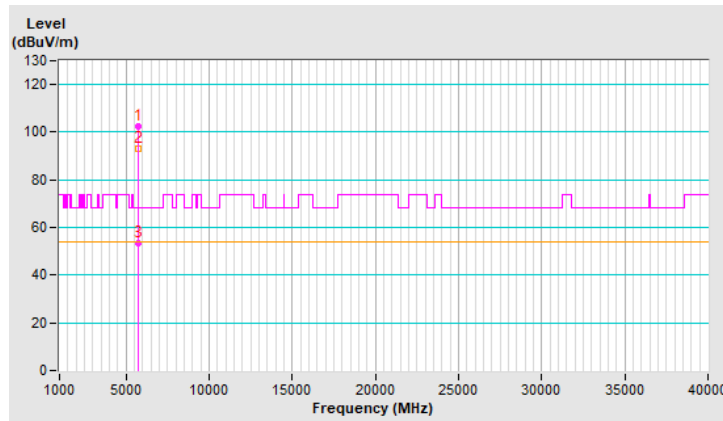


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	102.5 PK			1.44 H	175	97.7	4.8
2	*5700.00	93.1 AV			1.44 H	175	88.3	4.8
3	#5725.00	53.6 PK	68.2	-14.6	1.44 H	175	48.8	4.8

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.

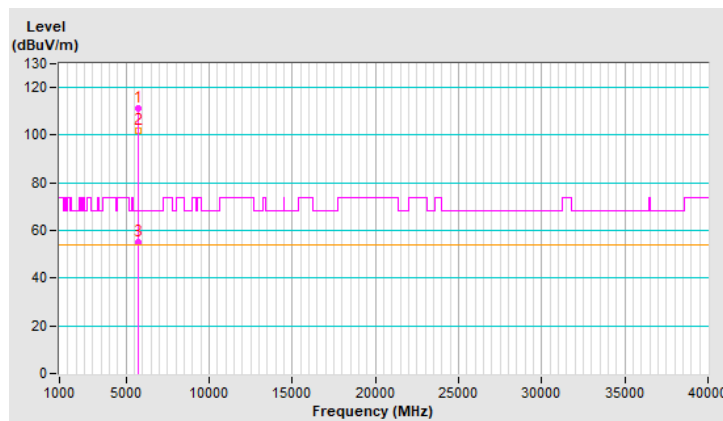


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.0 PK			1.45 V	175	106.2	4.8
2	*5700.00	102.1 AV			1.45 V	175	97.3	4.8
3	#5725.00	55.3 PK	68.2	-12.9	1.45 V	175	50.5	4.8

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.

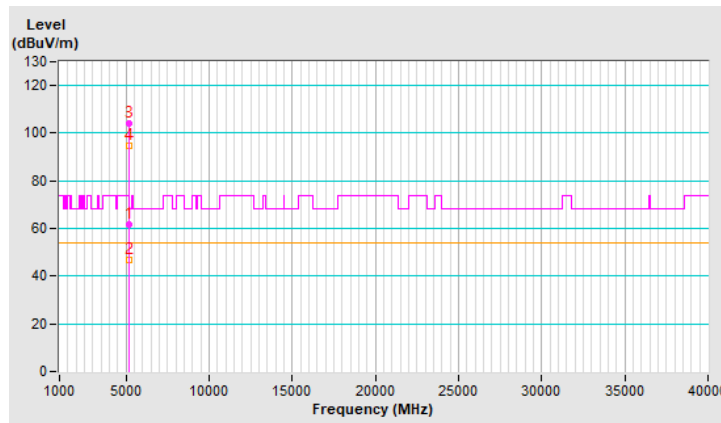


RF Mode	802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.8 PK	74.0	-12.2	1.49 H	173	57.2	4.6
2	5150.00	47.0 AV	54.0	-7.0	1.49 H	173	42.4	4.6
3	*5180.00	103.9 PK			1.49 H	173	99.3	4.6
4	*5180.00	94.5 AV			1.49 H	173	89.9	4.6

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.

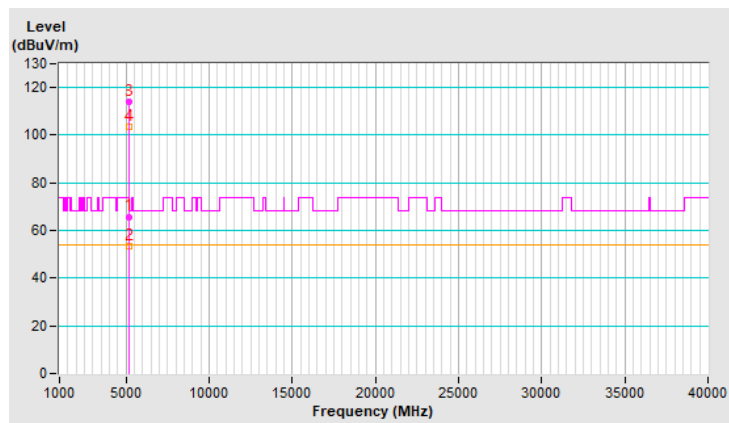


RF Mode	802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.8 PK	74.0	-8.2	2.15 V	95	61.2	4.6
2	5150.00	53.5 AV	54.0	-0.5	2.15 V	95	48.9	4.6
3	*5180.00	114.2 PK			2.15 V	95	109.6	4.6
4	*5180.00	103.6 AV			2.15 V	95	99.0	4.6

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.

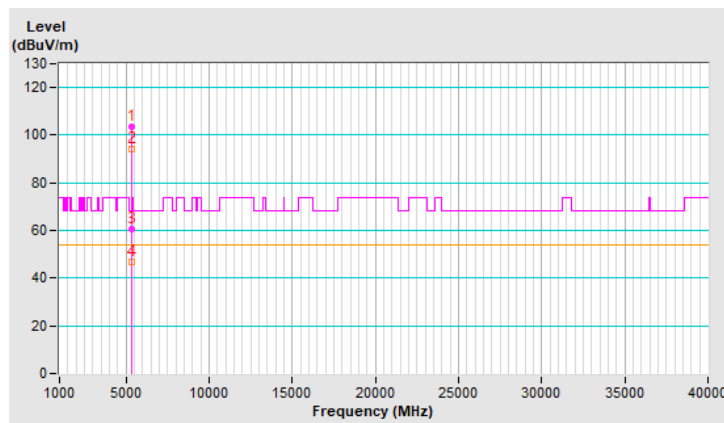


RF Mode	802.11ax (HE20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	103.6 PK			1.44 H	144	99.2	4.4
2	*5320.00	94.2 AV			1.44 H	144	89.8	4.4
3	5350.00	60.8 PK	74.0	-13.2	1.44 H	144	56.2	4.6
4	5350.00	46.6 AV	54.0	-7.4	1.44 H	144	42.0	4.6

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.

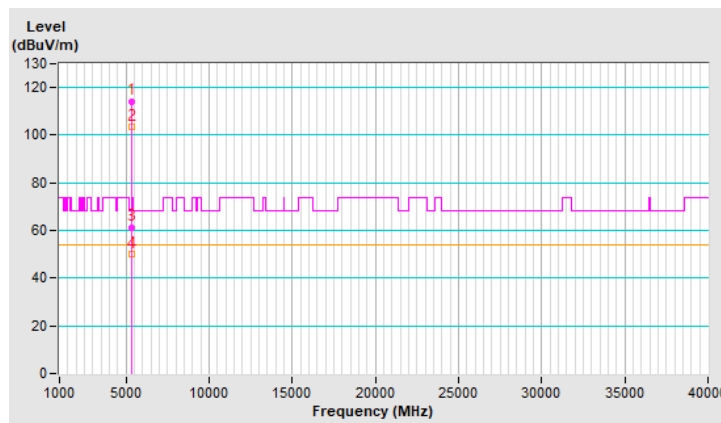


RF Mode	802.11ax (HE20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	114.3 PK			2.19 V	95	109.9	4.4
2	*5320.00	103.4 AV			2.19 V	95	99.0	4.4
3	5350.00	61.4 PK	74.0	-12.6	2.19 V	95	56.8	4.6
4	5350.00	50.2 AV	54.0	-3.8	2.19 V	95	45.6	4.6

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.

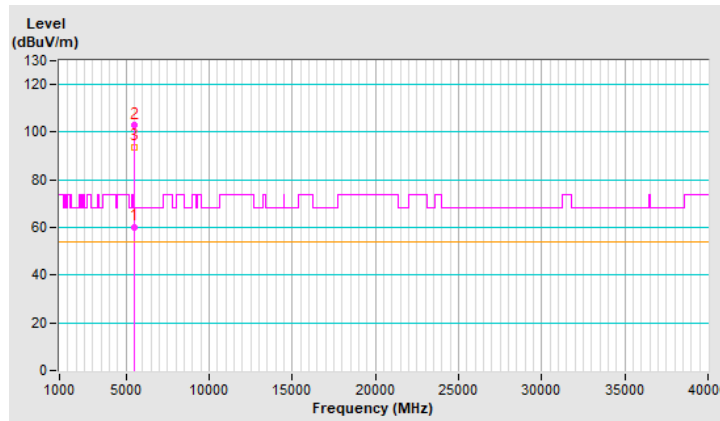


RF Mode	802.11ax (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.3 PK	68.2	-7.9	1.55 H	174	55.5	4.8
2	*5500.00	103.2 PK			1.55 H	174	98.3	4.9
3	*5500.00	93.9 AV			1.55 H	174	89.0	4.9

Remarks:

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

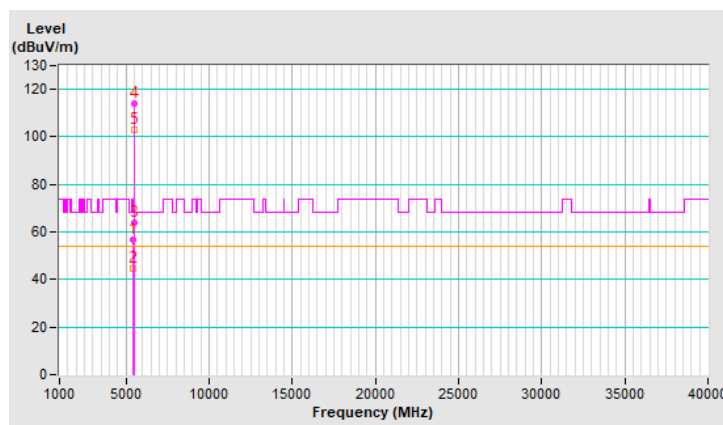


RF Mode	802.11ax (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.5 PK	74.0	-17.5	2.13 V	94	51.7	4.8
2	5460.00	44.8 AV	54.0	-9.2	2.13 V	94	40.0	4.8
3	#5470.00	63.7 PK	68.2	-4.5	2.13 V	94	58.9	4.8
4	*5500.00	113.8 PK			2.13 V	94	108.9	4.9
5	*5500.00	103.0 AV			2.13 V	94	98.1	4.9

Remarks:

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

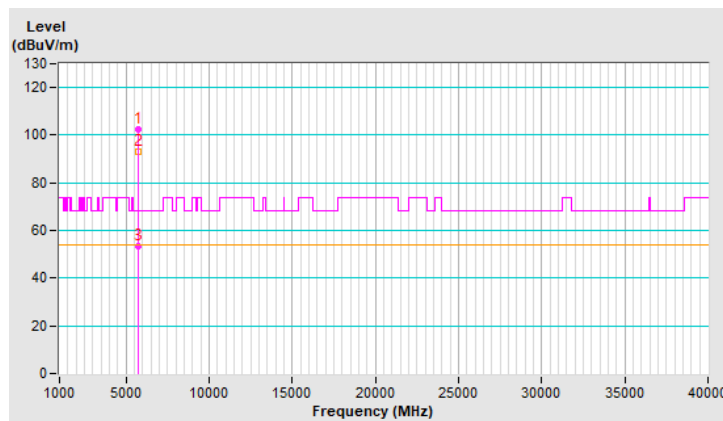


RF Mode	802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	102.3 PK			1.49 H	173	97.5	4.8
2	*5700.00	93.0 AV			1.49 H	173	88.2	4.8
3	#5725.00	53.2 PK	68.2	-15.0	1.49 H	173	48.4	4.8

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.

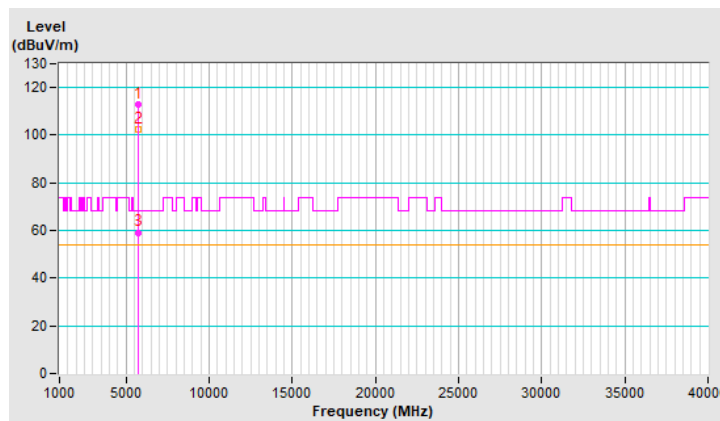


RF Mode	802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	113.0 PK			2.13 V	249	108.2	4.8
2	*5700.00	102.2 AV			2.13 V	249	97.4	4.8
3	#5725.00	59.2 PK	68.2	-9.0	2.13 V	249	54.4	4.8

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.

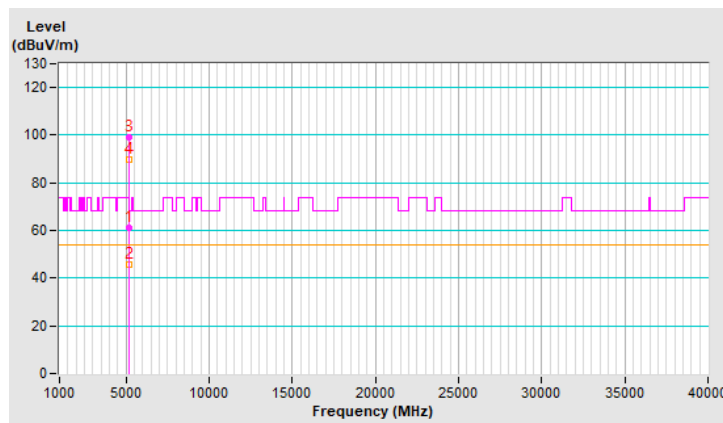


RF Mode	802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.0 PK	74.0	-13.0	1.45 H	163	56.4	4.6
2	5150.00	45.8 AV	54.0	-8.2	1.45 H	163	41.2	4.6
3	*5190.00	99.1 PK			1.45 H	163	94.6	4.5
4	*5190.00	89.7 AV			1.45 H	163	85.2	4.5

Remarks:

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

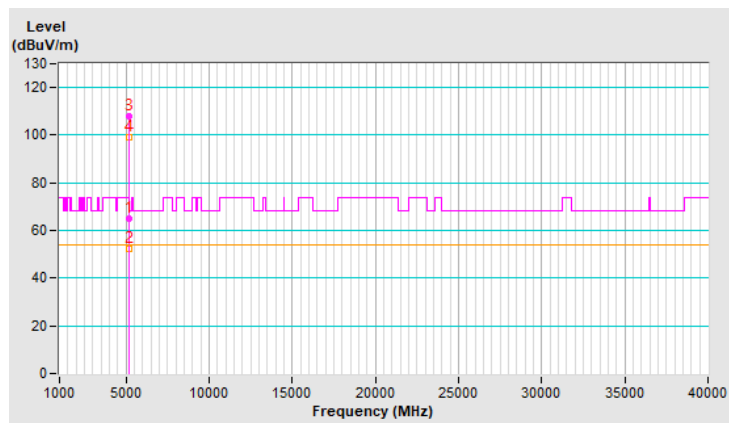


RF Mode	802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.9 PK	74.0	-9.1	2.13 V	55	60.3	4.6
2	5150.00	52.5 AV	54.0	-1.5	2.13 V	55	47.9	4.6
3	*5190.00	107.8 PK			2.13 V	55	103.3	4.5
4	*5190.00	98.9 AV			2.13 V	55	94.4	4.5

Remarks:

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

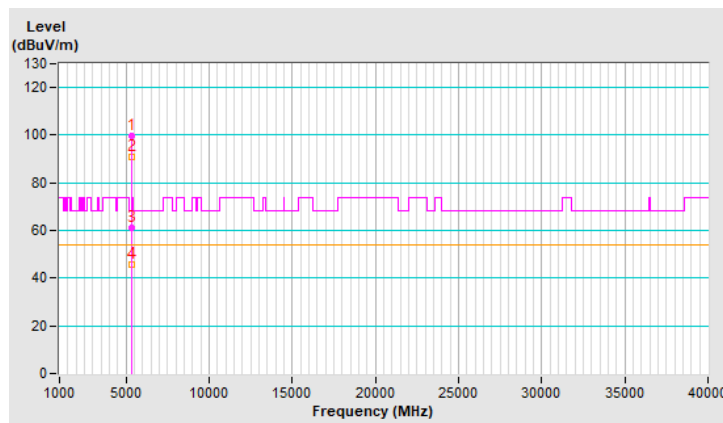


RF Mode	802.11ax (HE40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	99.8 PK			1.39 H	176	95.4	4.4
2	*5310.00	90.7 AV			1.39 H	176	86.3	4.4
3	5350.00	61.1 PK	74.0	-12.9	1.39 H	176	56.5	4.6
4	5350.00	45.6 AV	54.0	-8.4	1.39 H	176	41.0	4.6

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.

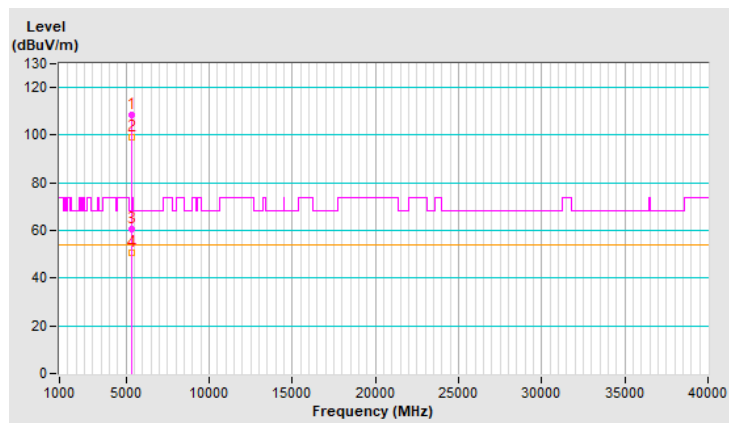


RF Mode	802.11ax (HE40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	108.6 PK			2.66 V	100	104.2	4.4
2	*5310.00	99.2 AV			2.66 V	100	94.8	4.4
3	5350.00	60.7 PK	74.0	-13.3	2.66 V	100	56.1	4.6
4	5350.00	50.7 AV	54.0	-3.3	2.66 V	100	46.1	4.6

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.

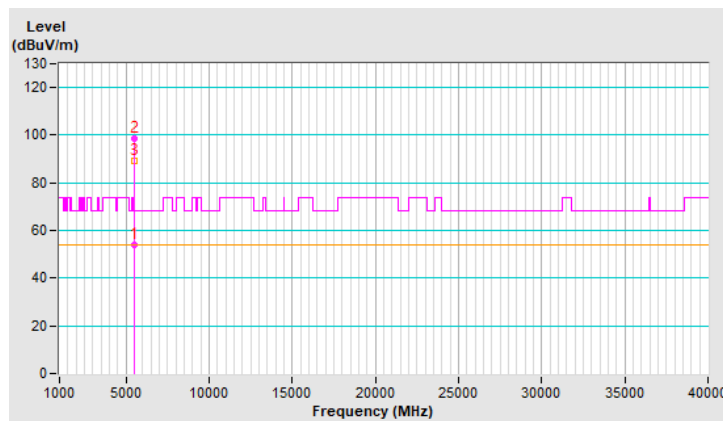


RF Mode	802.11ax (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	53.9 PK	68.2	-14.3	1.40 H	172	49.1	4.8
2	*5510.00	98.7 PK			1.40 H	172	93.8	4.9
3	*5510.00	89.4 AV			1.40 H	172	84.5	4.9

Remarks:

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

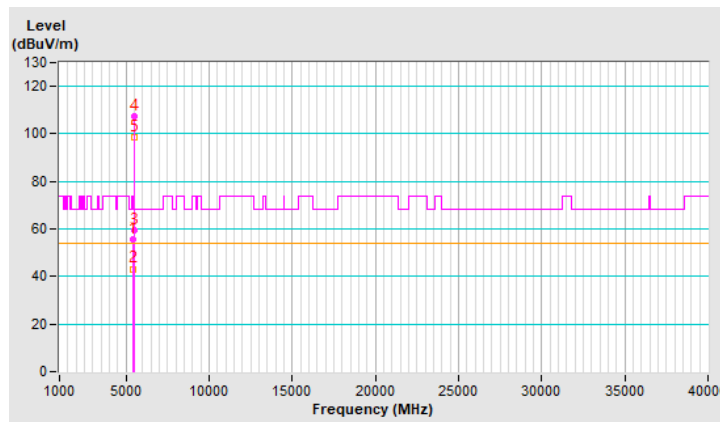


RF Mode	802.11ax (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.6 PK	74.0	-18.4	2.24 V	90	50.8	4.8
2	5460.00	43.2 AV	54.0	-10.8	2.24 V	90	38.4	4.8
3	#5470.00	59.4 PK	68.2	-8.8	2.24 V	90	54.6	4.8
4	*5510.00	107.5 PK			2.24 V	90	102.6	4.9
5	*5510.00	98.8 AV			2.24 V	90	93.9	4.9

Remarks:

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

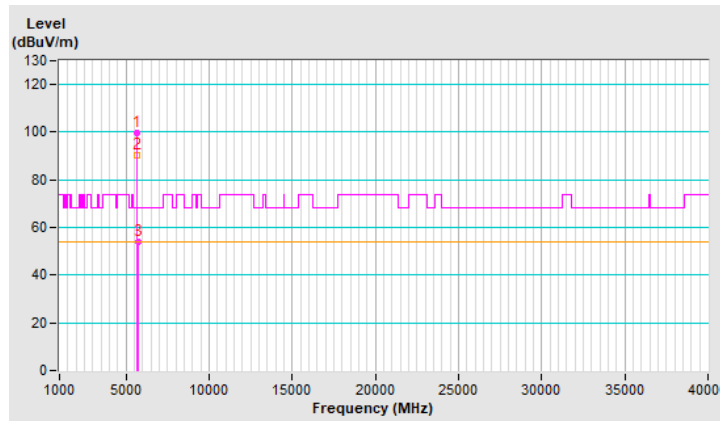


RF Mode	802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	99.7 PK			1.39 H	185	94.8	4.9
2	*5670.00	90.5 AV			1.39 H	185	85.6	4.9
3	#5725.00	53.8 PK	68.2	-14.4	1.39 H	185	49.0	4.8

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.

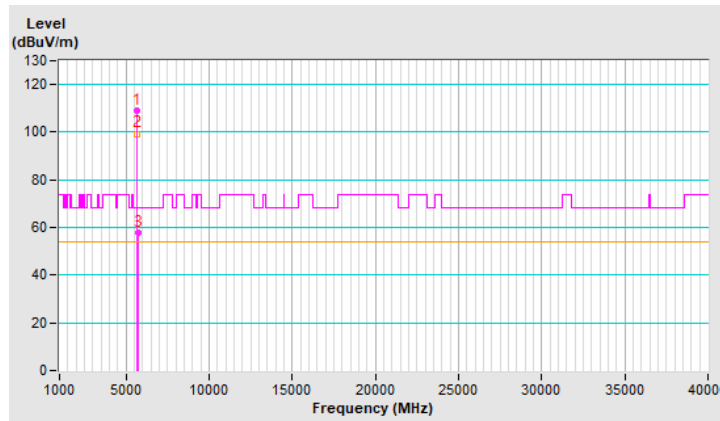


RF Mode	802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	109.0 PK			1.06 V	92	104.1	4.9
2	*5670.00	99.4 AV			1.06 V	92	94.5	4.9
3	#5725.00	57.9 PK	68.2	-10.3	1.06 V	92	53.1	4.8

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.

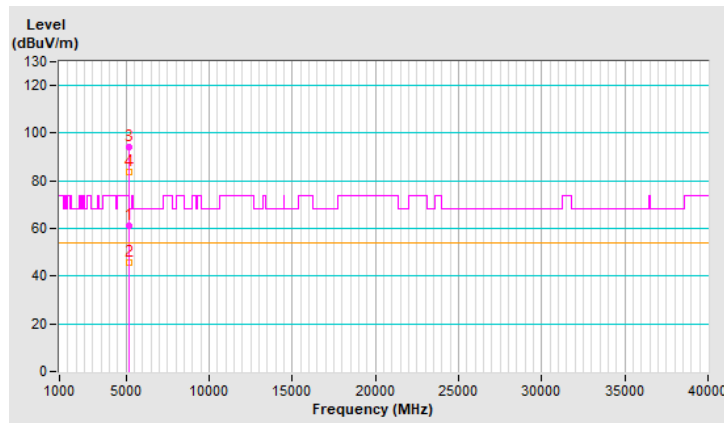


RF Mode	802.11ax (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.9 PK	74.0	-13.1	1.47 H	170	56.3	4.6
2	5150.00	45.6 AV	54.0	-8.4	1.47 H	170	41.0	4.6
3	*5210.00	94.1 PK			1.47 H	170	89.6	4.5
4	*5210.00	83.9 AV			1.47 H	170	79.4	4.5

Remarks:

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

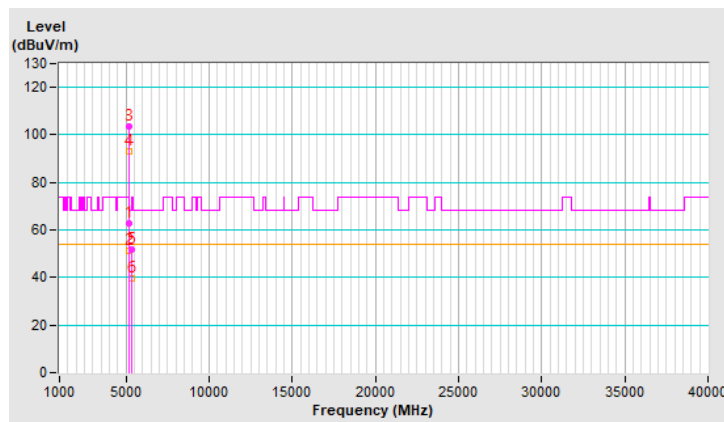


RF Mode	802.11ax (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.9 PK	74.0	-11.1	2.25 V	56	58.3	4.6
2	5150.00	51.4 AV	54.0	-2.6	2.25 V	56	46.8	4.6
3	*5210.00	103.6 PK			2.25 V	56	99.1	4.5
4	*5210.00	93.2 AV			2.25 V	56	88.7	4.5
5	5350.00	52.0 PK	74.0	-22.0	2.25 V	56	47.4	4.6
6	5350.00	39.8 AV	54.0	-14.2	2.25 V	56	35.2	4.6

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.

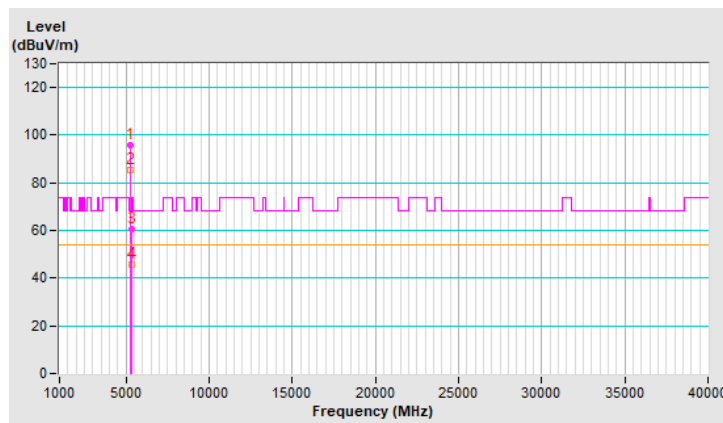


RF Mode	802.11ax (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	95.6 PK			1.50 H	152	91.2	4.4
2	*5290.00	85.3 AV			1.50 H	152	80.9	4.4
3	5368.23	60.6 PK	74.0	-13.4	1.50 H	152	56.0	4.6
4	5368.23	45.6 AV	54.0	-8.4	1.50 H	152	41.0	4.6

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.

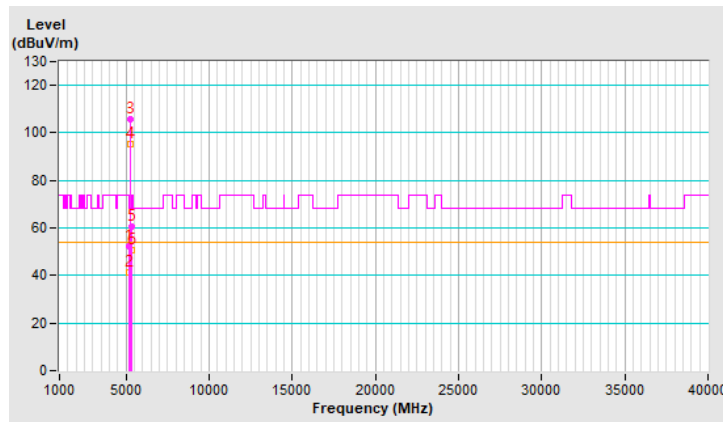


RF Mode	802.11ax (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	52.2 PK	74.0	-21.8	2.97 V	100	47.6	4.6
2	5150.00	41.3 AV	54.0	-12.7	2.97 V	100	36.7	4.6
3	*5290.00	105.9 PK			2.97 V	100	101.5	4.4
4	*5290.00	95.4 AV			2.97 V	100	91.0	4.4
5	5368.23	60.6 PK	74.0	-13.4	2.97 V	100	56.0	4.6
6	5368.23	50.9 AV	54.0	-3.1	2.97 V	100	46.3	4.6

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.

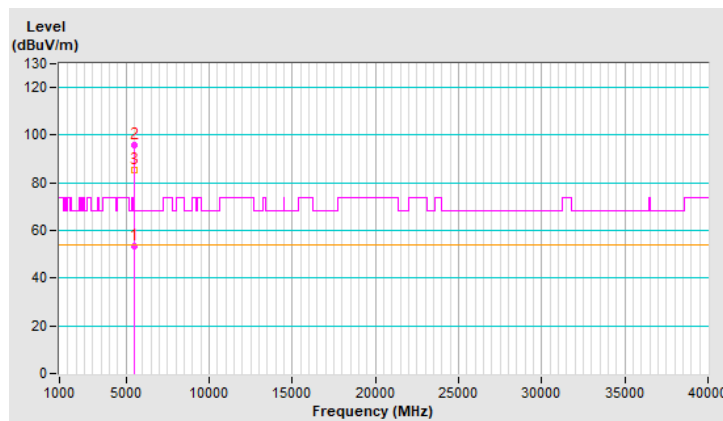


RF Mode	802.11ax (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5465.77	53.2 PK	68.2	-15.0	1.40 H	187	48.4	4.8
2	*5530.00	96.0 PK			1.40 H	187	91.1	4.9
3	*5530.00	85.6 AV			1.40 H	187	80.7	4.9

Remarks:

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

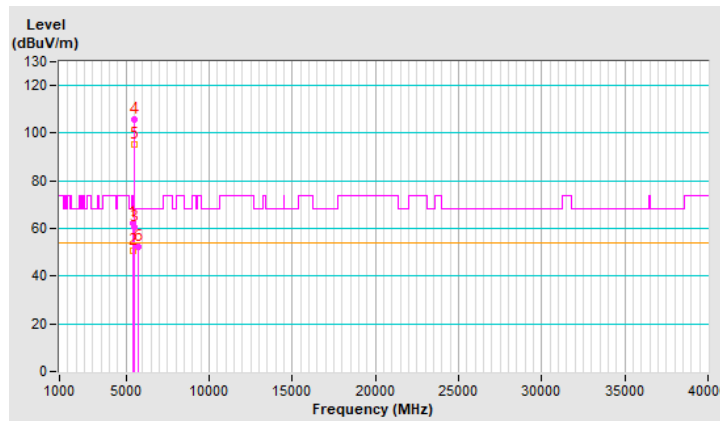


RF Mode	802.11ax (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5445.83	62.4 PK	74.0	-11.6	2.17 V	96	57.6	4.8
2	5445.83	50.6 AV	54.0	-3.4	2.17 V	96	45.8	4.8
3	#5465.77	60.5 PK	68.2	-7.7	2.17 V	96	55.7	4.8
4	*5530.00	105.8 PK			2.17 V	96	100.9	4.9
5	*5530.00	95.2 AV			2.17 V	96	90.3	4.9
6	#5725.00	52.5 PK	68.2	-15.7	2.17 V	96	47.7	4.8

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.

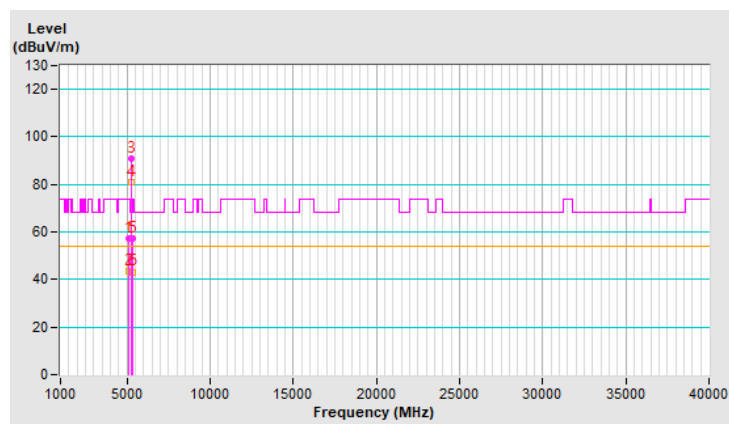


RF Mode	802.11ax (HE160)	Channel	CH 50 : 5250 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5107.58	57.3 PK	74.0	-16.7	1.46 H	161	52.6	4.7
2	5107.58	43.3 AV	54.0	-10.7	1.46 H	161	38.6	4.7
3	*5250.00	91.1 PK			1.46 H	161	86.8	4.3
4	*5250.00	80.7 AV			1.46 H	161	76.4	4.3
5	5377.25	57.1 PK	74.0	-16.9	1.46 H	161	52.5	4.6
6	5377.25	43.2 AV	54.0	-10.8	1.46 H	161	38.6	4.6

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.

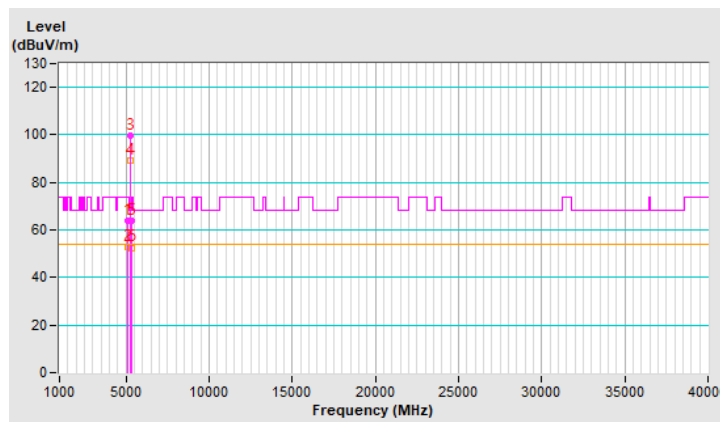


RF Mode	802.11ax (HE160)	Channel	CH 50 : 5250 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5107.58	64.0 PK	74.0	-10.0	2.16 V	133	59.3	4.7
2	5107.58	52.8 AV	54.0	-1.2	2.16 V	133	48.1	4.7
3	*5250.00	99.6 PK			2.16 V	133	95.3	4.3
4	*5250.00	89.1 AV			2.16 V	133	84.8	4.3
5	5377.25	63.8 PK	74.0	-10.2	2.16 V	133	59.2	4.6
6	5377.25	52.6 AV	54.0	-1.4	2.16 V	133	48.0	4.6

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.

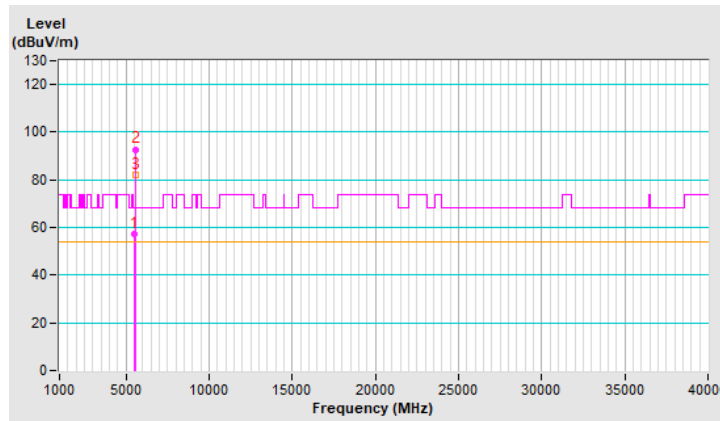


RF Mode	802.11ax (HE160)	Channel	CH 114 : 5570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5467.43	57.5 PK	68.2	-10.7	1.46 H	174	52.7	4.8
2	*5570.00	92.8 PK			1.46 H	174	87.9	4.9
3	*5570.00	82.3 AV			1.46 H	174	77.4	4.9

Remarks:

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

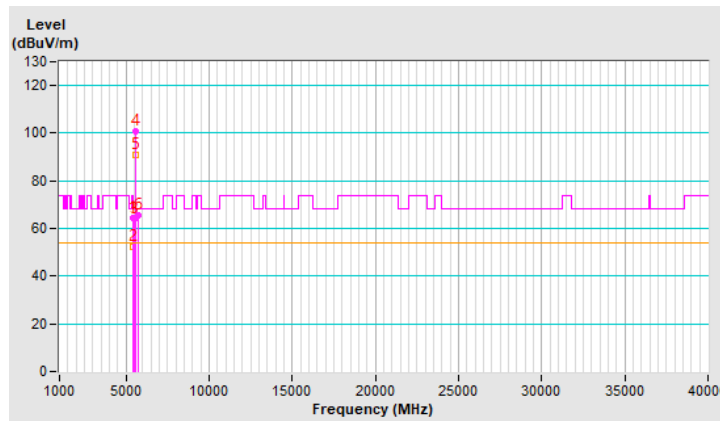


RF Mode	802.11ax (HE160)	Channel	CH 114 : 5570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5439.60	64.2 PK	74.0	-9.8	2.52 V	100	59.4	4.8
2	5439.60	52.3 AV	54.0	-1.7	2.52 V	100	47.5	4.8
3	#5467.43	64.0 PK	68.2	-4.2	2.52 V	100	59.2	4.8
4	*5570.00	100.7 PK			2.52 V	100	95.8	4.9
5	*5570.00	90.9 AV			2.52 V	100	86.0	4.9
6	#5725.00	65.7 PK	68.2	-2.5	2.52 V	100	60.9	4.8

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.

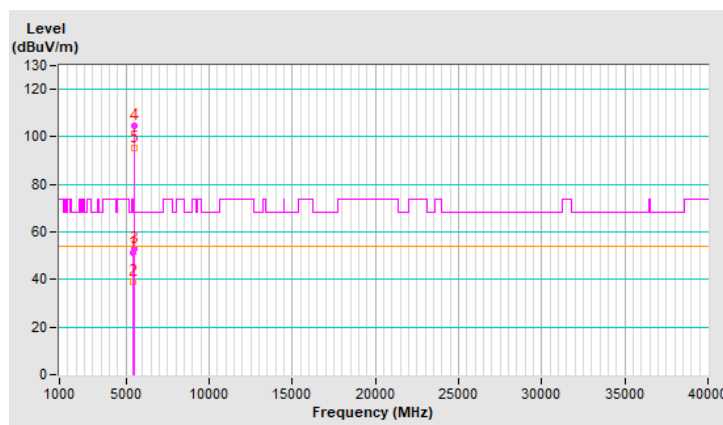


RF Mode	20 MHz Preamble 802.11ax (RU52)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.1 PK	74.0	-22.9	1.03 H	194	48.5	2.6
2	5460.00	39.3 AV	54.0	-14.7	1.03 H	194	36.7	2.6
3	#5470.00	53.1 PK	68.2	-15.1	1.03 H	194	50.5	2.6
4	*5500.00	104.7 PK			1.03 H	194	102.1	2.6
5	*5500.00	95.4 AV			1.03 H	194	92.8	2.6

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.

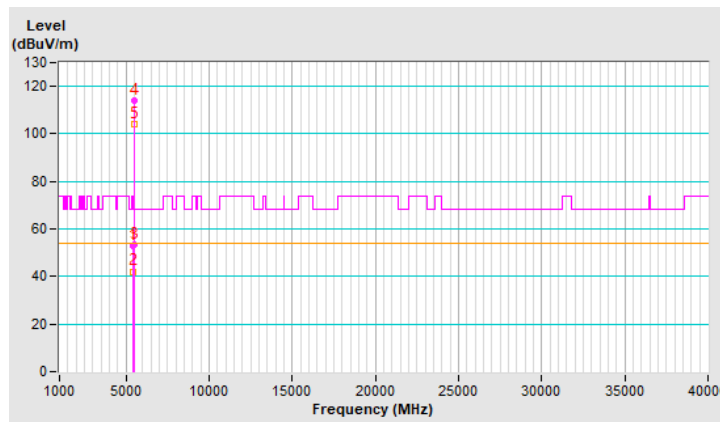


RF Mode	20 MHz Preamble 802.11ax (RU52)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.9 PK	74.0	-21.1	1.18 V	81	50.3	2.6
2	5460.00	42.1 AV	54.0	-11.9	1.18 V	81	39.5	2.6
3	#5470.00	53.6 PK	68.2	-14.6	1.18 V	81	51.0	2.6
4	*5500.00	113.8 PK			1.18 V	81	111.2	2.6
5	*5500.00	104.2 AV			1.18 V	81	101.6	2.6

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.

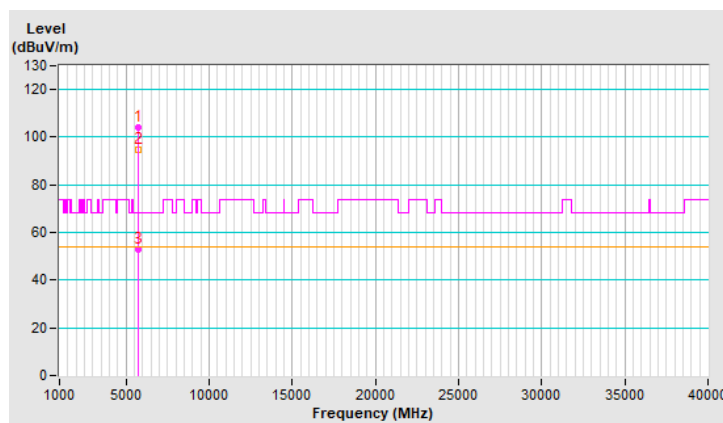


RF Mode	20 MHz Preamble 802.11ax (RU52)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	104.3 PK			1.03 H	182	101.5	2.8
2	*5700.00	94.9 AV			1.03 H	182	92.1	2.8
3	#5725.00	52.8 PK	68.2	-15.4	1.03 H	182	50.0	2.8

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.

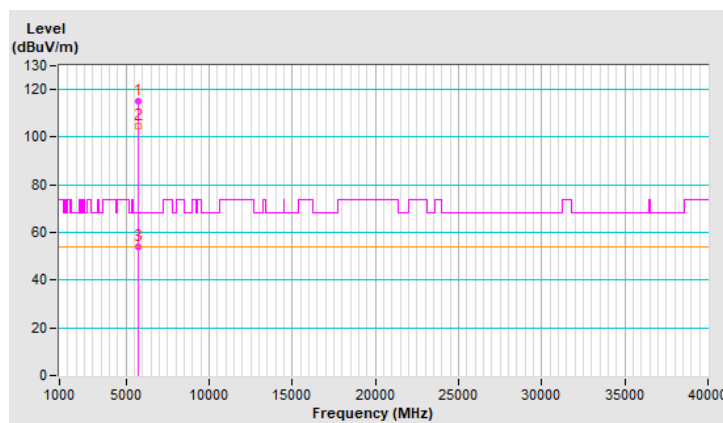


RF Mode	20 MHz Preamble 802.11ax (RU52)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	115.0 PK			1.14 V	94	112.2	2.8
2	*5700.00	104.6 AV			1.14 V	94	101.8	2.8
3	#5725.00	54.0 PK	68.2	-14.2	1.14 V	94	51.2	2.8

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.

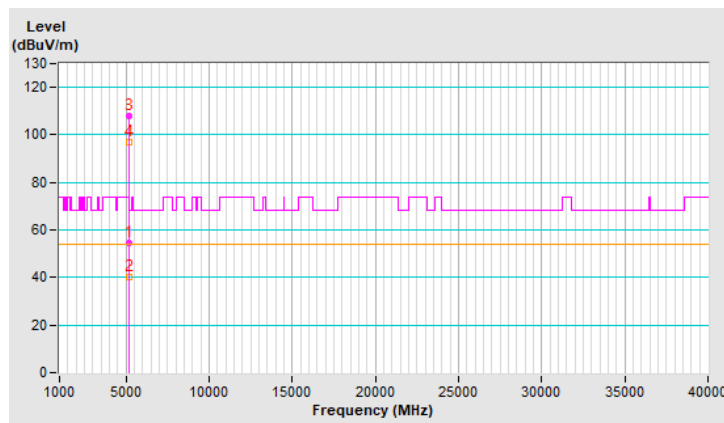


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	54.4 PK	74.0	-19.6	1.00 H	189	52.0	2.4
2	5150.00	40.3 AV	54.0	-13.7	1.00 H	189	37.9	2.4
3	*5180.00	107.7 PK			1.00 H	189	105.4	2.3
4	*5180.00	96.7 AV			1.00 H	189	94.4	2.3

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.

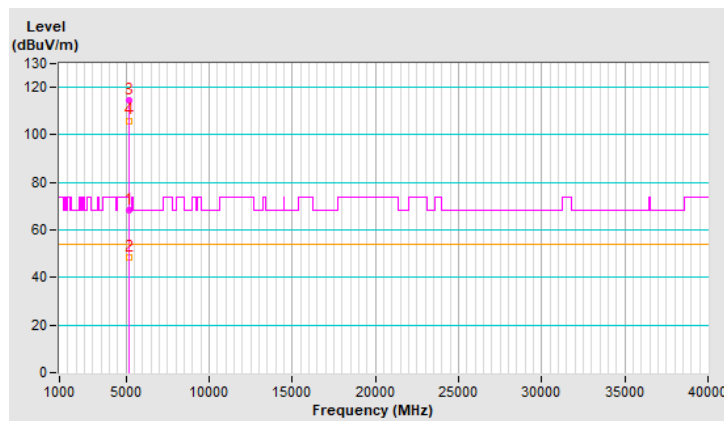


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	68.5 PK	74.0	-5.5	1.10 V	118	66.1	2.4
2	5150.00	48.3 AV	54.0	-5.7	1.10 V	118	45.9	2.4
3	*5180.00	114.7 PK			1.10 V	118	112.4	2.3
4	*5180.00	106.0 AV			1.10 V	118	103.7	2.3

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.

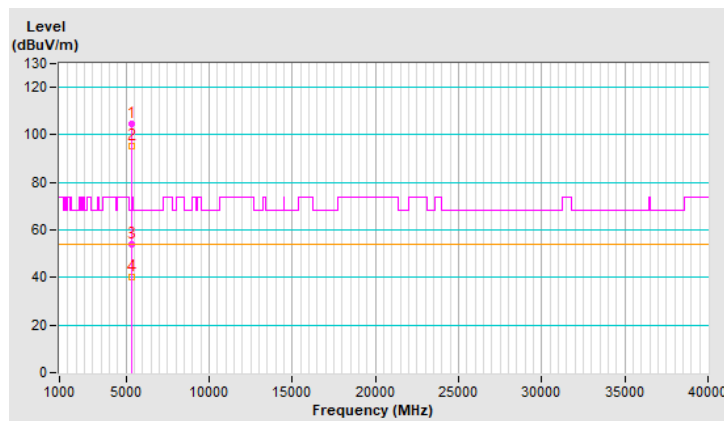


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	104.8 PK			1.06 H	193	102.7	2.1
2	*5320.00	95.5 AV			1.06 H	193	93.4	2.1
3	5350.00	54.1 PK	74.0	-19.9	1.06 H	193	51.7	2.4
4	5350.00	40.1 AV	54.0	-13.9	1.06 H	193	37.7	2.4

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.

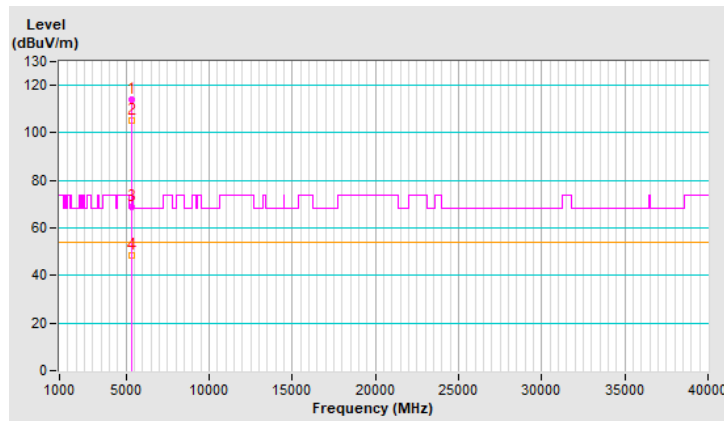


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	113.9 PK			1.13 V	111	111.8	2.1
2	*5320.00	105.3 AV			1.13 V	111	103.2	2.1
3	5350.00	68.7 PK	74.0	-5.3	1.13 V	111	66.3	2.4
4	5350.00	48.5 AV	54.0	-5.5	1.13 V	111	46.1	2.4

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.

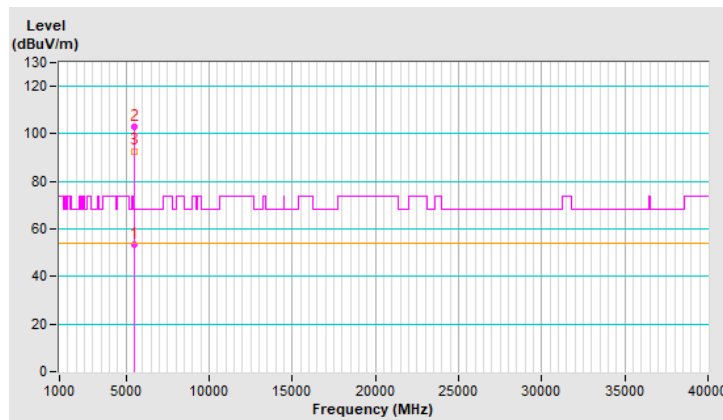


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	53.3 PK	68.2	-14.9	1.01 H	184	50.7	2.6
2	*5500.00	102.9 PK			1.01 H	184	100.3	2.6
3	*5500.00	92.8 AV			1.01 H	184	90.2	2.6

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.

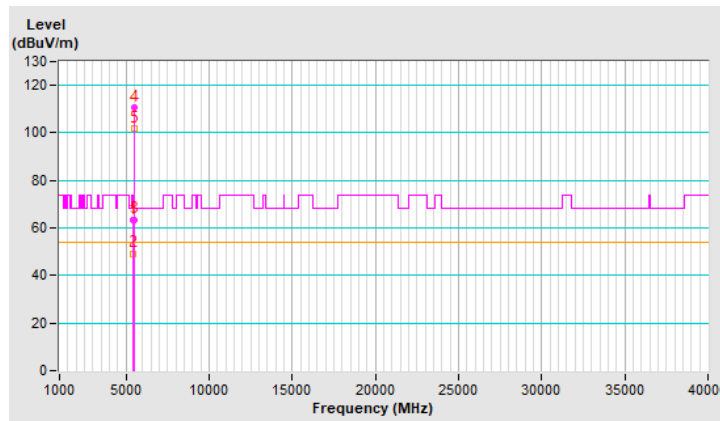


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	63.1 PK	74.0	-10.9	1.14 V	107	60.5	2.6
2	5460.00	49.3 AV	54.0	-4.7	1.14 V	107	46.7	2.6
3	#5470.00	63.6 PK	68.2	-4.6	1.14 V	107	61.0	2.6
4	*5500.00	110.7 PK			1.14 V	107	108.1	2.6
5	*5500.00	101.9 AV			1.14 V	107	99.3	2.6

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.

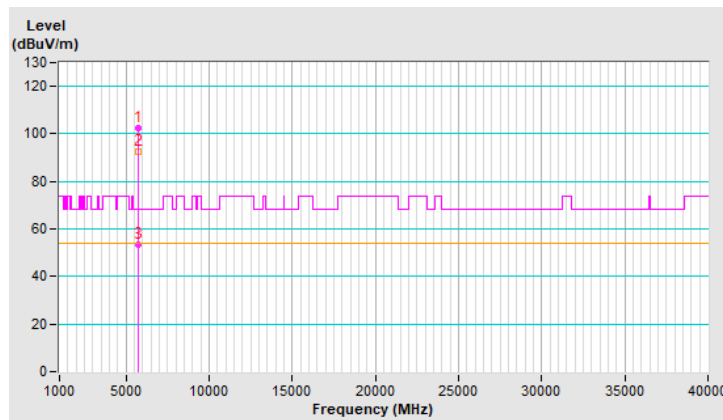


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	102.2 PK			1.09 H	191	99.4	2.8
2	*5700.00	92.3 AV			1.09 H	191	89.5	2.8
3	#5725.00	53.6 PK	68.2	-14.6	1.09 H	191	50.8	2.8

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

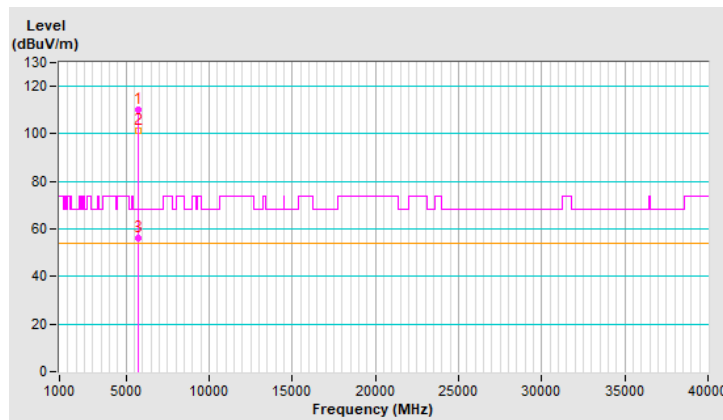


RF Mode	20 MHz Preamble 802.11ax (RU106)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	109.9 PK			1.13 V	114	107.1	2.8
2	*5700.00	101.1 AV			1.13 V	114	98.3	2.8
3	#5725.00	56.4 PK	68.2	-11.8	1.13 V	114	53.6	2.8

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.



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Email: service.adt@bureauveritas.com

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

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

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