

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Report No.: RFBBQZ-WTW-P22060198-1
FCC ID: PY322200567
Product: WiFi 6 AX4200 Dual Band Multi-Gig Access Point
Brand: NETGEAR
Model No.: WAX220
Received Date: 2022/6/14
Test Date: 2022/9/1 ~ 2022/9/27
Issued Date: 2022/10/14

Applicant and Manufacturer: NETGEAR, INC.

Address: 350 East Plumeria Drive San Jose CA 95134

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

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

FCC Registration /

Designation Number: 788550 / TW0003

Approved by:

Jeremy Lin

Date:

2022/10/14

Jeremy Lin / Project Engineer

This test report consists of 140 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.



Prepared by : Pettie Chen / Senior Specialist

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	4
1 Certificate.....	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Antenna Description of EUT	9
3.3 Channel List.....	10
3.4 Test Mode Applicability and Tested Channel Detail.....	12
3.5 Duty Cycle of Test Signal.....	14
3.6 Test Program Used and Operation Descriptions	15
3.7 Connection Diagram of EUT and Peripheral Devices	15
3.8 Configuration of Peripheral Devices and Cable Connections	16
4 Test Instruments	17
4.1 26 dB Bandwidth	17
4.2 RF Output Power.....	17
4.3 Power Spectral Density	17
4.4 6 dB Bandwidth	17
4.5 Occupied Bandwidth.....	17
4.6 Frequency Stability	18
4.7 AC Power Conducted Emissions	18
4.8 Unwanted Emissions below 1 GHz	19
4.9 Unwanted Emissions above 1 GHz.....	20
5 Limits of Test Items.....	21
5.1 26 dB Bandwidth	21
5.2 RF Output Power.....	21
5.3 Power Spectral Density	21
5.4 6 dB Bandwidth	21
5.5 Occupied Bandwidth.....	22
5.6 Frequency Stability	22
5.7 AC Power Conducted Emissions	22
5.8 Unwanted Emissions below 1 GHz	22
5.9 Unwanted Emissions above 1 GHz.....	23
6 Test Arrangements	24
6.1 26 dB Bandwidth	24
6.1.1 Test Setup	24
6.1.2 Test Procedure	24
6.2 RF Output Power.....	25
6.2.1 Test Setup	25
6.2.2 Test Procedure	25
6.3 Power Spectral Density	26
6.3.1 Test Setup	26
6.3.2 Test Procedure	26
6.4 6 dB Bandwidth	26
6.4.1 Test Setup	26
6.4.2 Test Procedure	26
6.5 Occupied Bandwidth.....	27
6.5.1 Test Setup	27
6.5.2 Test Procedure	27
6.6 Frequency Stability	27
6.6.1 Test Setup	27
6.6.2 Test Procedure	27
6.7 AC Power Conducted Emissions	28

6.7.1	Test Setup	28
6.7.2	Test Procedure	28
6.8	Unwanted Emissions below 1 GHz	29
6.8.1	Test Setup	29
6.8.2	Test Procedure	30
6.9	Unwanted Emissions above 1 GHz	31
6.9.1	Test Setup	31
6.9.2	Test Procedure	31
7	Test Results of Test Item	32
7.1	26 dB Bandwidth	32
7.2	RF Output Power	36
7.3	Power Spectral Density	48
7.4	6 dB Bandwidth	55
7.5	Occupied Bandwidth	57
7.6	Frequency Stability	64
7.7	AC Power Conducted Emissions	65
7.8	Unwanted Emissions below 1 GHz	71
7.9	Unwanted Emissions above 1 GHz	77
8	Pictures of Test Arrangements	139
9	Information of the Testing Laboratories	140

Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22060198-1	Original release.	2022/10/14

1 Certificate

Product: WiFi 6 AX4200 Dual Band Multi-Gig Access Point

Brand: NETGEAR

Test Model: WAX220

Sample Status: Engineering sample

Applicant and Manufacturer: NETGEAR, INC.

Test Date: 2022/9/1 ~ 2022/9/27

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

Measurement procedure: ANSI C63.10-2013
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	Pass	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	-	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -15.27 dB at 0.16600 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -2.0 dB at 74.62 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 5150.00, 5640.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is IPEX not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.99 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.64 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 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	WiFi 6 AX4200 Dual Band Multi-Gig Access Point
Brand	NETGEAR
Test Model	WAX220
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc (adapter) 55.5 Vdc (POE)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 450 Mbps 802.11ac: up to 2340 Mbps 802.11ax: up to 3602.9 Mbps
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5320 MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 8 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 4 802.11ac (VHT80), 802.11ax (HE80): 2 802.11ac (VHT160), 802.11ax (HE160): 1 5500 ~ 5720 MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6 802.11ac (VHT80), 802.11ax (HE80): 3 802.11ac (VHT160), 802.11ax (HE160): 1 5745 ~ 5825 MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	CDD Mode: 5180 ~ 5240 MHz: 729.166 mW (28.63 dBm) 5260 ~ 5320 MHz: 207.704 mW (23.17 dBm) 5500 ~ 5720 MHz: 208.529 mW (23.19 dBm) 5745 ~ 5825 MHz: 836.754 mW (29.23 dBm) Beamforming Mode: 5180 ~ 5240 MHz: 729.166 mW (28.63 dBm) 5260 ~ 5320 MHz: 185.117 mW (22.67 dBm) 5500 ~ 5720 MHz: 185.155 mW (22.68 dBm) 5745 ~ 5825 MHz: 821.660 mW (29.15 dBm)
EUT Category	Indoor Access Point

Note:

1. The EUT uses following accessories.

Adapter 1	
Brand	NETGEAR
Model	ADS-40FPA-12 12030EPCU-L /EPC-L
Part Number	332-11525-02
Input Power	100~120Vac ~60Mhz Max.1.0A
Output Power	12Vdc/2.5A
DC cable	1.8m DC cable without core

Adapter 2	
Brand	NETGEAR
Model	AD2067F10
Part Number	332-10797-02
Input Power	100~120Vac ~50/60Mhz Max.1.0A
Output Power	12Vdc/2.5A
DC cable	1.8m DC cable without core

POE (for support unit only)	
Brand	BUFFALO
Model	BIJ-POE-1P2GH
Input Power	100-240 Vac, 1.1 A, 50/60 Hz
Output Power	55.5 Vdc, 0.54 A

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

3. 2.4GHz & 5GHz technology can transmit at same time.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Type	PIFA
Connector Type	IPEX
Antenna Gain	Directional Gain (dBi)
2400~2483.5MHz	6.04
5150~5250MHz	6.93
5250~5350MHz	6.94
5470~5725MHz	6.96
5725~5850MHz	6.82

* The detailed antenna information, please refer to the BV CPS report no.: RFBBQZ-WTW-P22060198-5.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	3TX	3RX
802.11n (HT20)	3TX	3RX
802.11n (HT40)	3TX	3RX
802.11ac (VHT20)	3TX	3RX
802.11ac (VHT40)	3TX	3RX
802.11ac (VHT80)	3TX	3RX
802.11ac (VHT160)	3TX	3RX
802.11ax (HE20)	3TX	3RX
802.11ax (HE40)	3TX	3RX
802.11ax (HE80)	3TX	3RX
802.11ax (HE160)	3TX	3RX

Note:

1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz, 160MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz, 160MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.
4. The EUT device modulation technique OFDMA does not support partial RUs (resource units).

3.3 Channel List

FOR 5180 ~ 5320 MHz

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) and 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) and 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) and 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

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

Channel	Frequency
50	5250 MHz

FOR 5500 ~ 5700 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) and 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) and 802.11ax (HE40):

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

3 channels are provided for 802.11ac (VHT80) and 802.11ax (HE80):

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

1 channel is provided for 802.11ac (VHT160) and 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) and 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) and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

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

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

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

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

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth / Power Spectral Density	A	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
		802.11ax (HE160)	CDD	50, 114	BPSK	MCS0
RF Output Power	A	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	42, 58, 106, 122, 138, 155	BPSK	MCS0
		802.11ax (HE160)	CDD & Beamforming	50, 114	BPSK	MCS0
6 dB Bandwidth	A	802.11a	CDD	144, 149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	144, 149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	142, 151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	138, 155	BPSK	MCS0

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
Occupied Bandwidth	A	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
		802.11ax (HE160)	CDD	50, 114	BPSK	MCS0
Frequency Stability	A	802.11a	CDD	36	un-modulation	-
AC Power Conducted Emissions	A, B, C	802.11ax (HE20)	CDD	149	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B, C	802.11ax (HE20)	CDD	149	BPSK	MCS0
Unwanted Emissions above 1 GHz	A	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
		802.11ax (HE160)	CDD	50, 114	BPSK	MCS0
EUT Configure Mode:	A	Powered by adapter 1				
	B	Powered by adapter 2				
	C	Powered by POE				

3.5 Duty Cycle of Test Signal

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

802.11a: Duty cycle = $3.101 \text{ ms} / 3.16 \text{ ms} \times 100\% = 98.1\%$

802.11ax (HE20): Duty cycle = $3.546 \text{ ms} / 3.607 \text{ ms} \times 100\% = 98.3\%$

802.11ax (HE40): Duty cycle = $4.687 \text{ ms} / 4.762 \text{ ms} \times 100\% = 98.4\%$

802.11ax (HE80): Duty cycle = $4.708 \text{ ms} / 4.79 \text{ ms} \times 100\% = 98.3\%$

802.11ax (HE160): Duty cycle = $4.982 \text{ ms} / 5.05 \text{ ms} \times 100\% = 98.7\%$

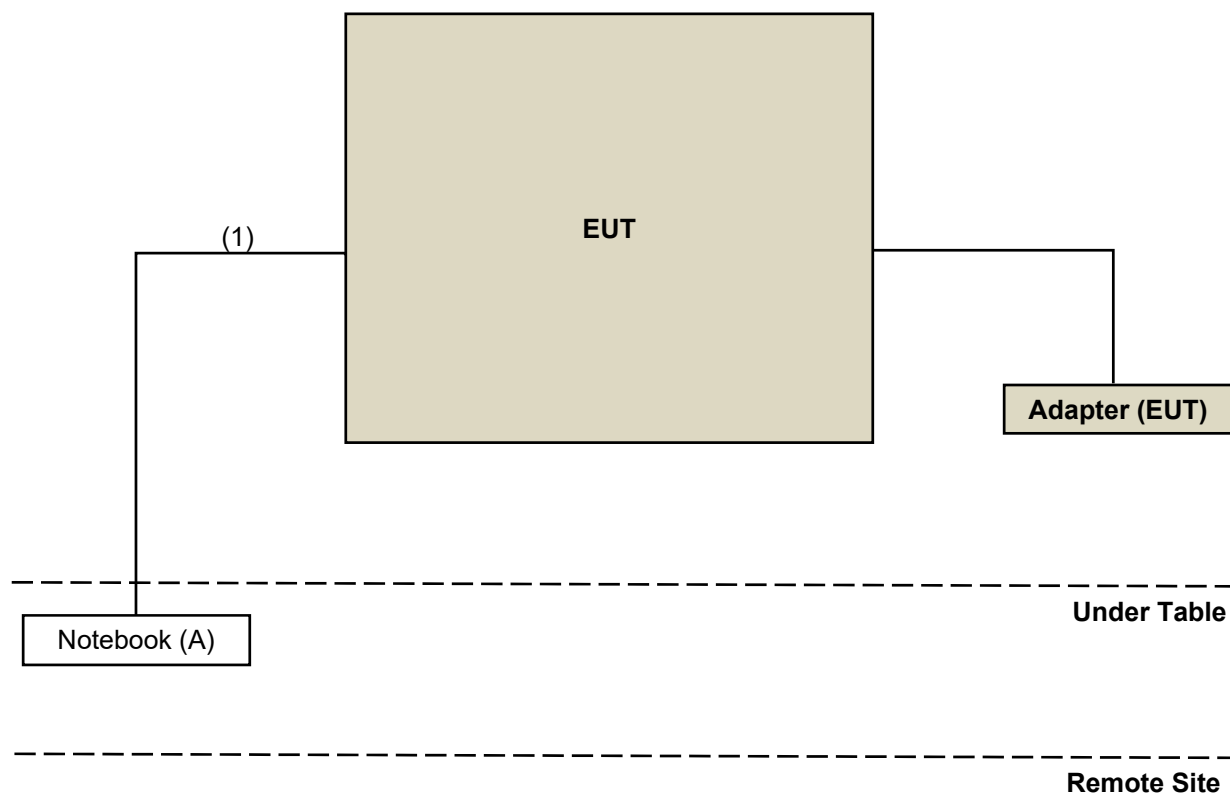


3.6 Test Program Used and Operation Descriptions

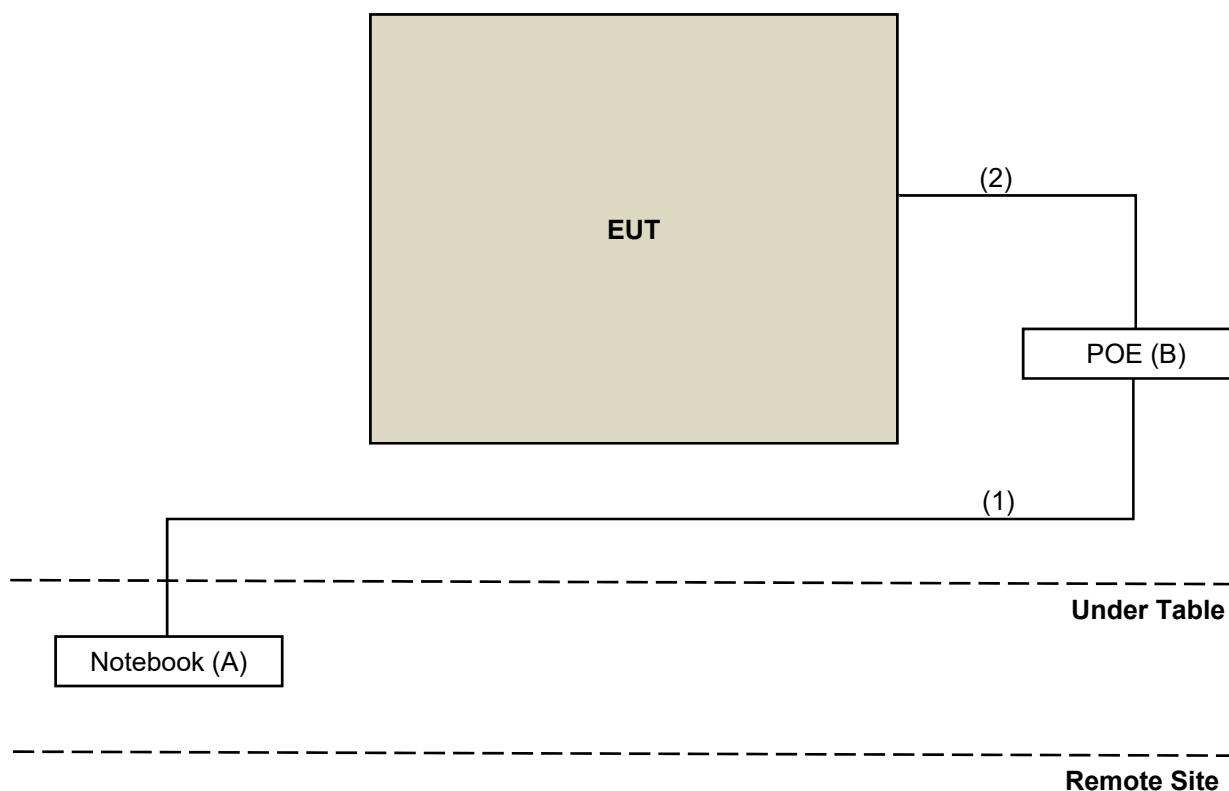
Controlling software (MT7986_0007 QA 0.0.2.87) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

Test Mode A, B



Test Mode C



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	DELL	E5430	2RL3YW1	N/A	Provided by Lab
B	POE	Buffalo	BIJ-POE-1P2GH	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	10	N/A	N/A	N/A
2	RJ-45 Cable	1	1.5	N/A	N/A	N/A

4 Test Instruments

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

4.1 26 dB Bandwidth

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/27

4.2 RF Output Power

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/27

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/27

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC-LISN SCHWARZBECK MESS- ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH3-Z5	100220	2021/11/25	2022/11/24
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2022/1/15	2023/1/14
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	2021/12/3	2022/12/2
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/9/22

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Bi_Log Antenna Schwarbeck	VULB9168	9168-155	2021/11/1	2022/10/31
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
Pre_Amplifier Agilent	8447D	2944A10631	2022/5/14	2023/5/13
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
RF Coaxial Cable WOKEN	8D-FB	Cable-CH4-01	2022/7/9	2023/7/8
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	2022/4/13	2023/4/12
Test Receiver R&S	ESCI	100424	2021/12/30	2022/12/29
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/9/22

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170241	2021/10/26	2022/10/25
Horn Antenna Schwarzbeck	9120D	9120D-1170	2021/11/14	2022/11/13
Pre-Amplifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Pre_Amplifier KEYSIGHT	83017A	MY53270295	2022/5/14	2023/5/13
RF cable HUBER+SUHNER	Sucoflex 104	MY 13380+295012/04	2022/5/14	2023/5/13
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03(250724)	2022/5/14	2023/5/13
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2022/7/9	2023/7/8
	EMC102-KM-KM-3000	150929	2022/7/9	2023/7/8
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	2022/4/13	2023/4/12
Test Receiver R&S	ESCI	100424	2021/12/30	2022/12/29
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/9/1 ~ 2022/9/26

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

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

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

*B is the 26 dB emission bandwidth in megahertz

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

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

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

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

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

5.3 Power Spectral Density

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

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

5.4 6 dB Bandwidth

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

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

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

5.7 AC Power Conducted Emissions

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

Notes:

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

5.8 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.9 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

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

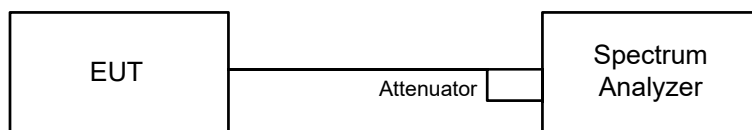
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

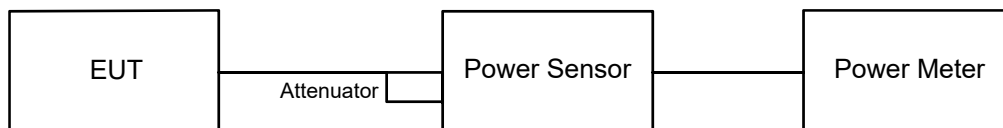


6.1.2 Test Procedure

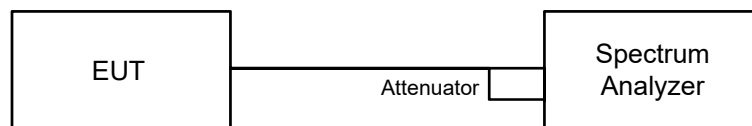
- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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

For channel straddling:

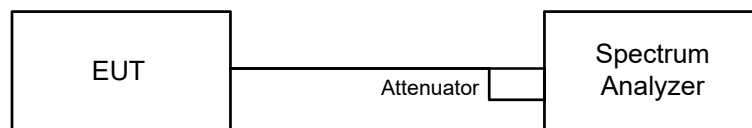
Method SA-1

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

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

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

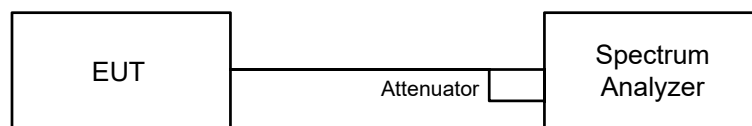
For specified measurement bandwidth 500 kHz:

Method SA-1

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

6.4 6 dB Bandwidth

6.4.1 Test Setup

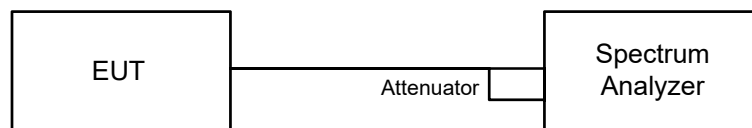


6.4.2 Test Procedure

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

6.5 Occupied Bandwidth

6.5.1 Test Setup

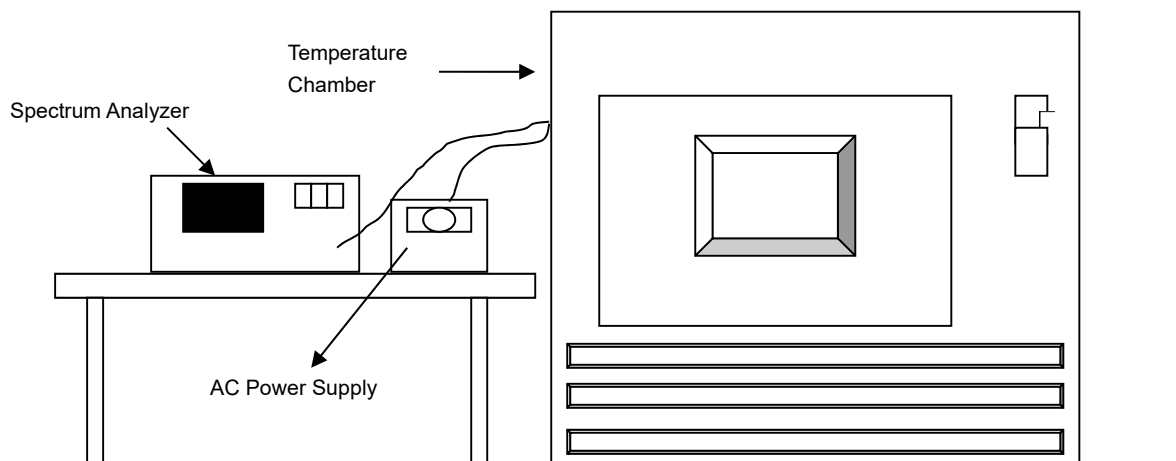


6.5.2 Test Procedure

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

6.6 Frequency Stability

6.6.1 Test Setup

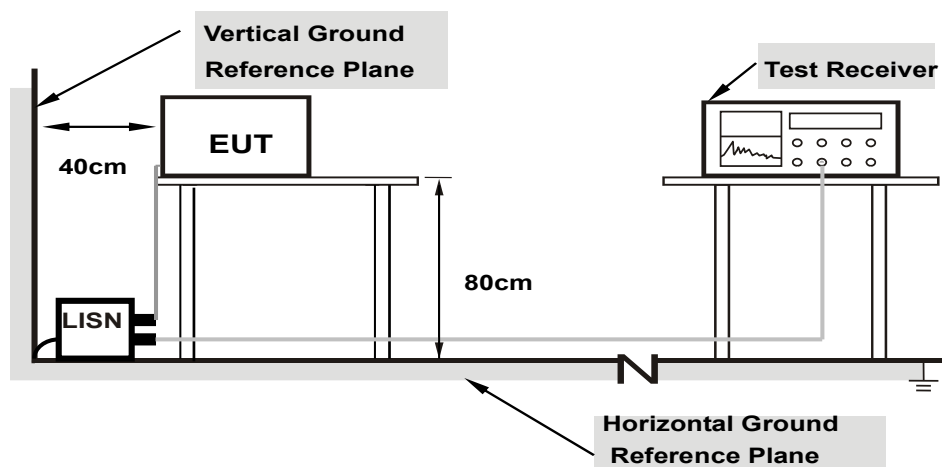


6.6.2 Test Procedure

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

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



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

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

6.7.2 Test Procedure

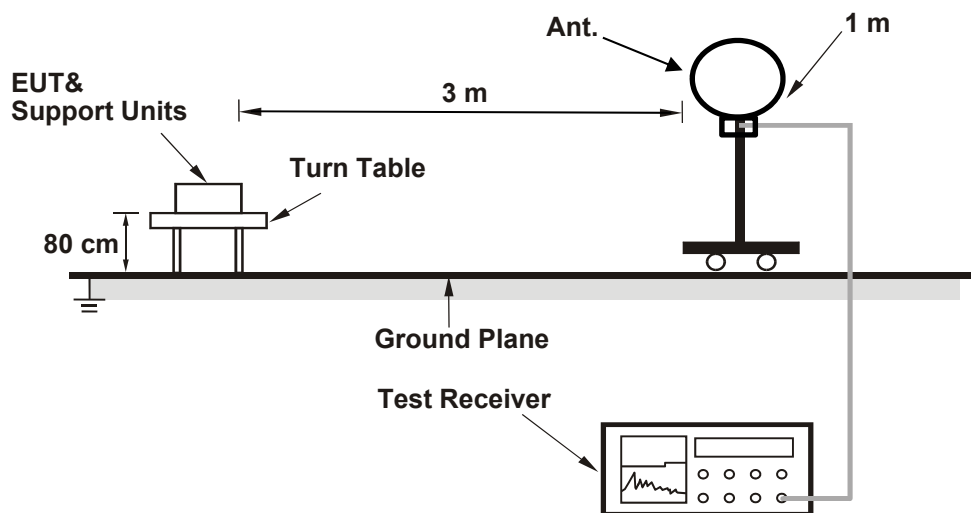
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

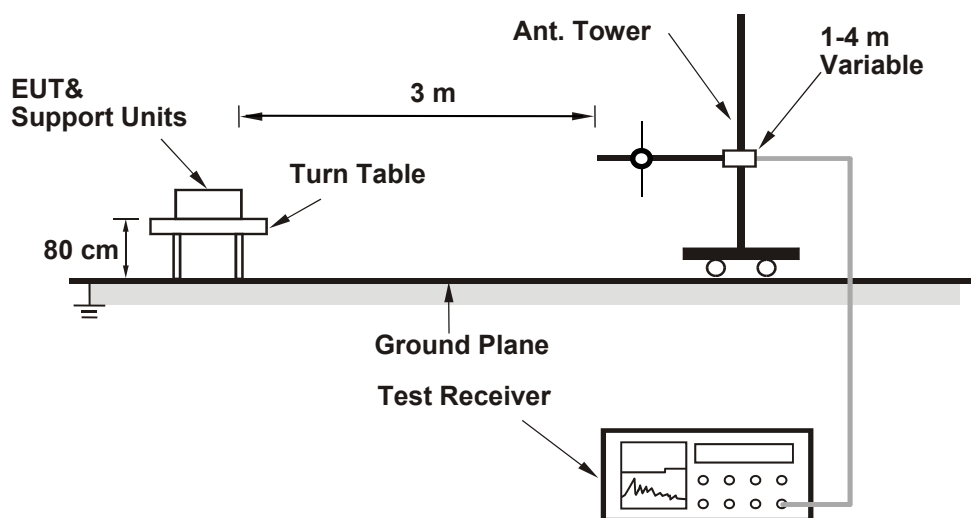
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.8.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

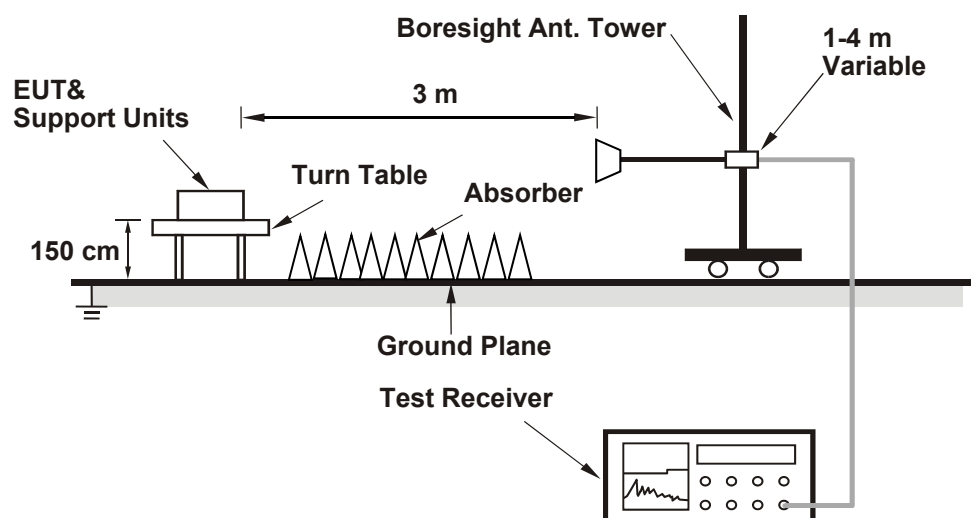
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup



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

6.9.2 Test Procedure

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

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- For band edge measurement, the integration method is used, the resolution bandwidth of test spectrum analyzer is 100 kHz and the video bandwidth is 300 kHz. Please refer to the following for other instrument settings.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 26 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
52	5260	21.26	21.11	20.94
60	5300	36.35	34.54	28.81
64	5320	28.68	29.28	28.32
100	5500	27.55	28.47	28.56
116	5580	21.72	21.12	20.49
140	5700	27.73	25.73	25.71
144 (U-NII-2C)	5720	15.74	15.55	15.37

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.94	24.2 > 24
60	5300	28.81	25.59 > 24
64	5320	28.32	25.52 > 24
100	5500	27.55	25.4 > 24
116	5580	20.49	24.11 > 24
140	5700	25.71	25.1 > 24
144 (U-NII-2C)	5720	15.37	22.86 < 24

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

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
52	5260	22.22	22.21	22.23
60	5300	26.85	35.46	35.67
64	5320	28.57	26.18	28.05
100	5500	39.46	26.83	27.14
116	5580	22.34	22.39	22.19
140	5700	28.93	27.02	28.44
144 (U-NII-2C)	5720	16.36	16.16	16.04

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	22.21	24.46 > 24
60	5300	26.85	25.28 > 24
64	5320	26.18	25.17 > 24
100	5500	26.83	25.28 > 24
116	5580	22.19	24.46 > 24
140	5700	27.02	25.31 > 24
144 (U-NII-2C)	5720	16.04	23.05 < 24

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

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
54	5270	40.52	40.48	40.56
62	5310	51.27	53.06	49.01
102	5510	53.82	52.46	49.59
110	5550	40.49	40.45	40.54
134	5670	57.96	56.60	56.69
142 (U-NII-2C)	5710	35.40	35.33	35.27

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	40.48	27.07 > 24
62	5310	49.01	27.9 > 24
102	5510	49.59	27.95 > 24
110	5550	40.45	27.06 > 24
134	5670	56.60	28.52 > 24
142 (U-NII-2C)	5710	35.27	26.47 > 24

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

802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
58	5290	99.70	93.77	104.47
106	5530	86.03	98.51	92.53
122	5610	80.78	80.87	80.77
138 (U-NII-2C)	5690	75.63	75.64	75.48

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	93.77	30.72 > 24
106	5530	86.03	30.34 > 24
122	5610	80.77	30.07 > 24
138 (U-NII-2C)	5690	75.48	29.77 > 24

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

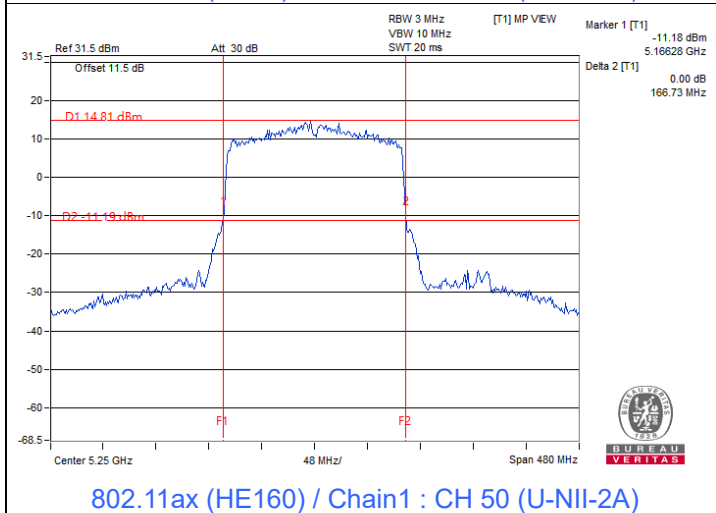
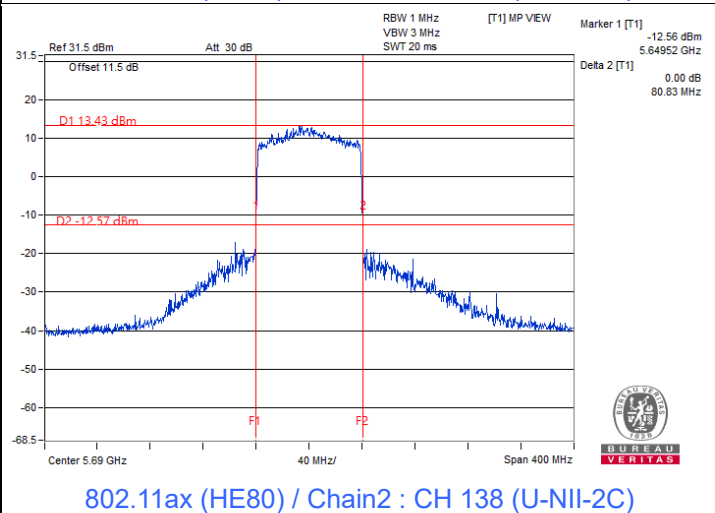
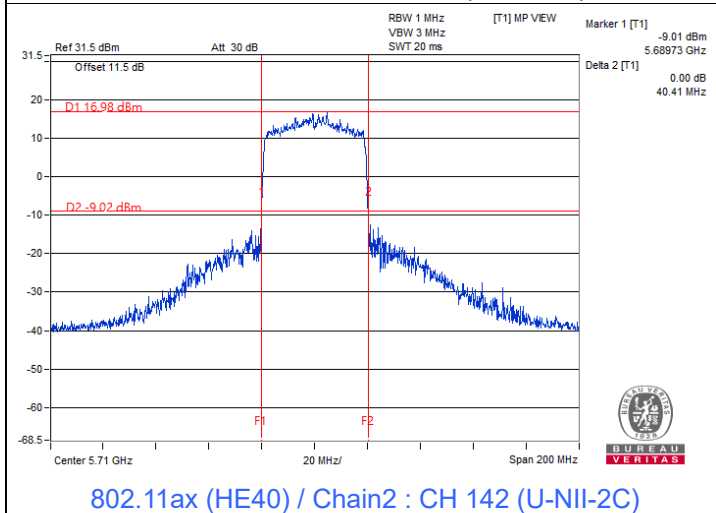
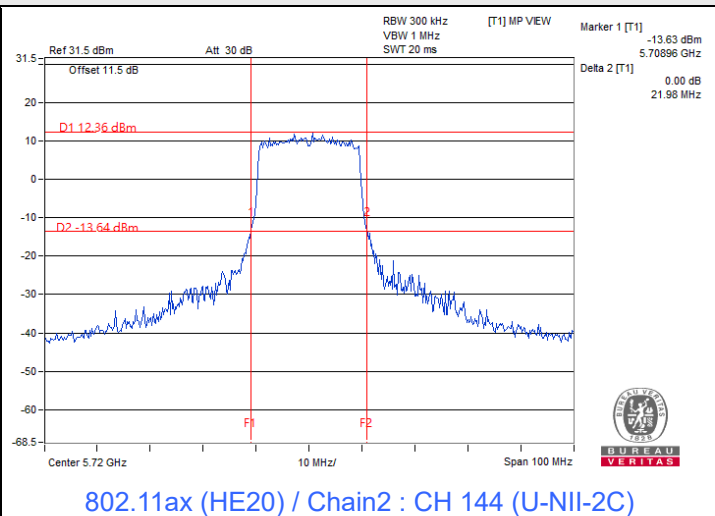
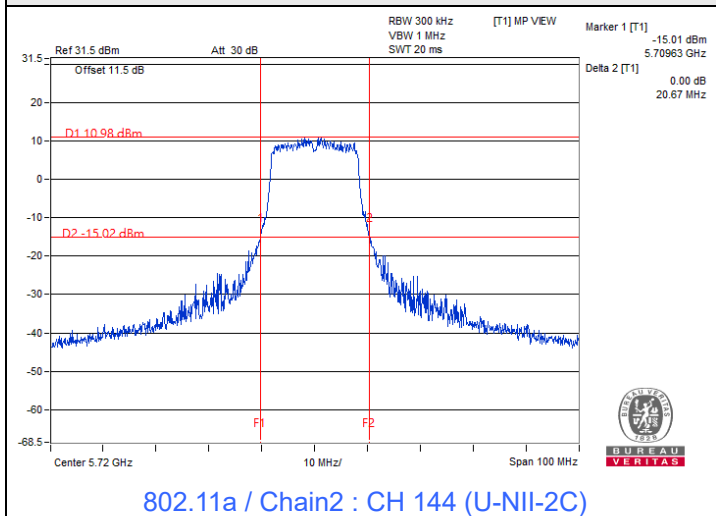
802.11ax (HE160)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
50 (U-NII-2A)	5250	85.53	83.01	83.05
114	5570	167.41	166.13	168.47

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
50 (U-NII-2A)	5250	83.01	30.19 > 24
114	5570	166.13	33.2 > 24

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

Spectrum Plot of Minimum Value



Notes:

1. For U-NII-2C straddle channel = 5725 MHz - Marker 1
2. For U-NII-2A straddle channel = Marker 1 + Delta 2 - 5250 MHz

7.2 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
36	5180	21.87	22.10	21.79	467.004	26.69	30	Pass
40	5200	23.95	23.90	23.70	728.207	28.62	30	Pass
48	5240	23.86	23.82	23.75	721.348	28.58	30	Pass
52	5260	18.02	18.82	18.21	205.817	23.13	24	Pass
60	5300	17.95	18.62	18.42	204.654	23.11	24	Pass
64	5320	17.92	18.55	18.49	204.19	23.10	24	Pass
100	5500	17.92	18.25	18.95	207.302	23.17	24	Pass
116	5580	18.08	18.48	18.68	208.529	23.19	24	Pass
140	5700	18.29	18.15	18.75	207.755	23.18	24	Pass
*144 (U-NII-2C)	5720	17.22	17.79	17.56	169.857	22.30	22.86	Pass
*144 (U-NII-3)	5720	10.29	10.60	10.91	34.503	15.38	30	Pass
149	5745	24.69	24.16	24.28	822.974	29.15	30	Pass
157	5785	24.72	24.13	24.29	823.839	29.16	30	Pass
165	5825	24.71	24.09	24.36	825.147	29.17	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
36	5180	21.47	22.05	21.48	441.211	26.45	30	Pass
40	5200	22.63	22.75	23.02	572.044	27.57	30	Pass
48	5240	23.92	23.87	23.78	729.166	28.63	30	Pass
52	5260	17.92	18.85	18.39	207.704	23.17	24	Pass
60	5300	18.01	18.55	18.52	205.977	23.14	24	Pass
64	5320	17.92	18.51	18.48	203.371	23.08	24	Pass
100	5500	17.62	18.01	19.38	207.747	23.18	24	Pass
116	5580	17.82	18.02	19.09	205.017	23.12	24	Pass
140	5700	18.12	18.05	18.65	201.972	23.05	24	Pass
*144 (U-NII-2C)	5720	17.44	17.07	17.55	163.281	22.13	23.05	Pass
*144 (U-NII-3)	5720	11.67	11.25	11.75	42.987	16.33	30	Pass
149	5745	24.60	24.33	24.43	836.754	29.23	30	Pass
157	5785	24.66	24.12	24.33	821.66	29.15	30	Pass
165	5825	24.77	24.16	24.31	830.306	29.19	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
38	5190	18.71	18.99	18.65	226.835	23.56	30	Pass
46	5230	21.32	21.68	21.75	432.374	26.36	30	Pass
54	5270	18.08	18.66	18.39	206.744	23.15	24	Pass
62	5310	17.92	18.52	18.42	202.568	23.07	24	Pass
102	5510	17.87	18.22	18.82	203.817	23.09	24	Pass
110	5550	17.82	18.11	18.92	203.231	23.08	24	Pass
134	5670	18.01	18.09	18.58	199.769	23.01	24	Pass
*142 (U-NII-2C)	5710	18.00	17.89	18.41	193.956	22.88	24	Pass
*142 (U-NII-3)	5710	6.86	6.70	7.23	14.815	11.71	30	Pass
151	5755	24.71	24.20	24.43	836.16	29.22	30	Pass
159	5795	24.77	24.17	24.36	834.03	29.21	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.

802.11ax (HE80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
42	5210	16.12	16.45	16.21	126.866	21.03	30	Pass
58	5290	18.01	18.45	18.38	202.091	23.06	24	Pass
106	5530	17.82	18.06	18.82	200.715	23.03	24	Pass
122	5610	17.99	18.22	18.75	204.314	23.10	24	Pass
*138 (U-NII-2C)	5690	17.17	17.34	17.97	168.981	22.28	24	Pass
*138 (U-NII-3)	5690	3.31	3.45	4.14	6.95	8.42	30	Pass
155	5775	21.48	21.13	21.40	408.361	26.11	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.

802.11ax (HE160) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
*50 (U-NII-1)	5250	14.47	15.02	14.95	91.019	19.59	30	Pass
*50 (U-NII-2A)	5250	14.37	14.92	14.82	88.737	19.48	24	Pass
114	5570	17.48	17.67	17.85	175.408	22.44	24	Pass

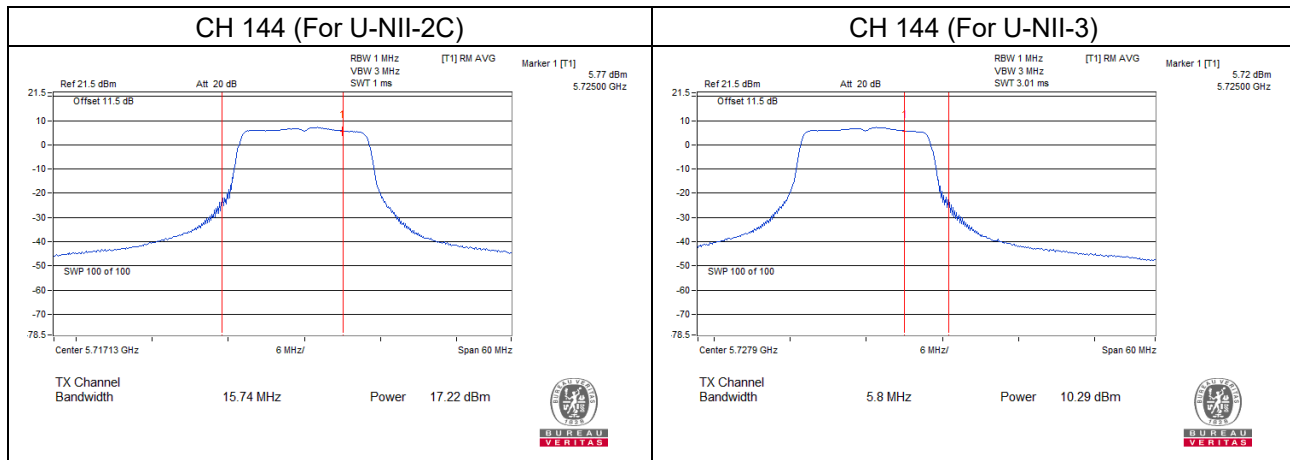
Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.

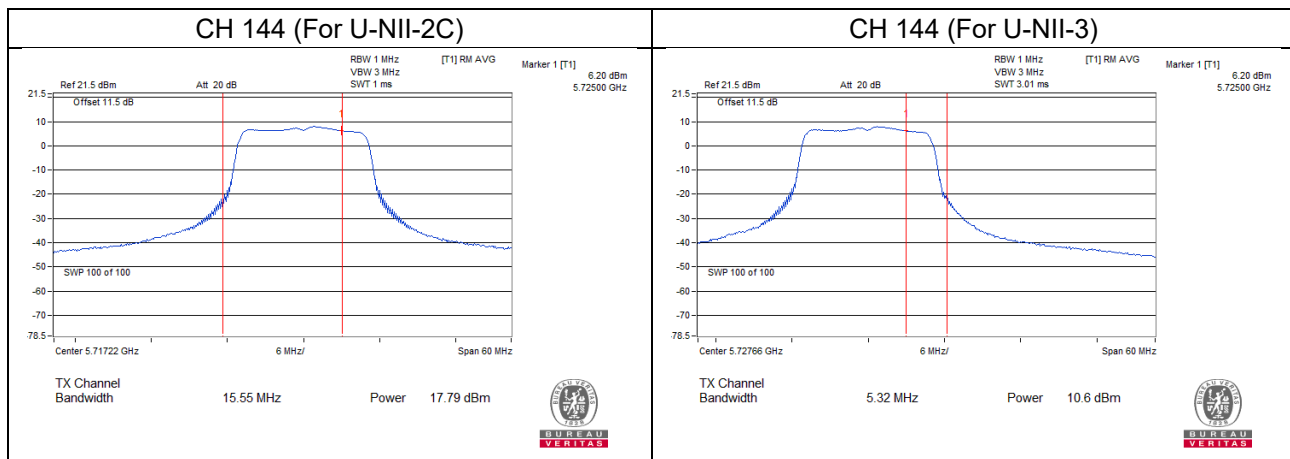
Straddle channel power plots:

802.11a

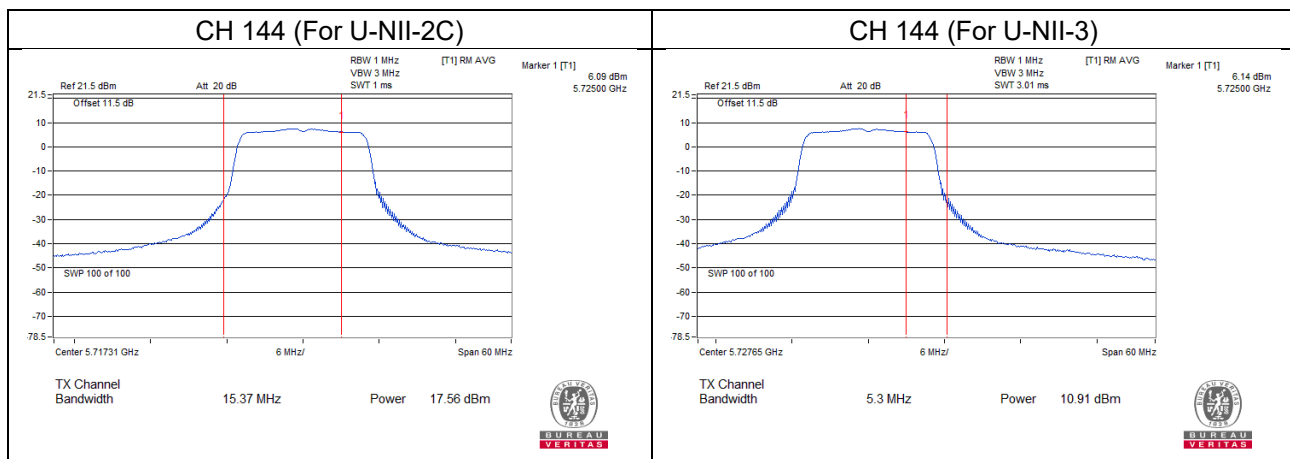
Chain 0



Chain 1

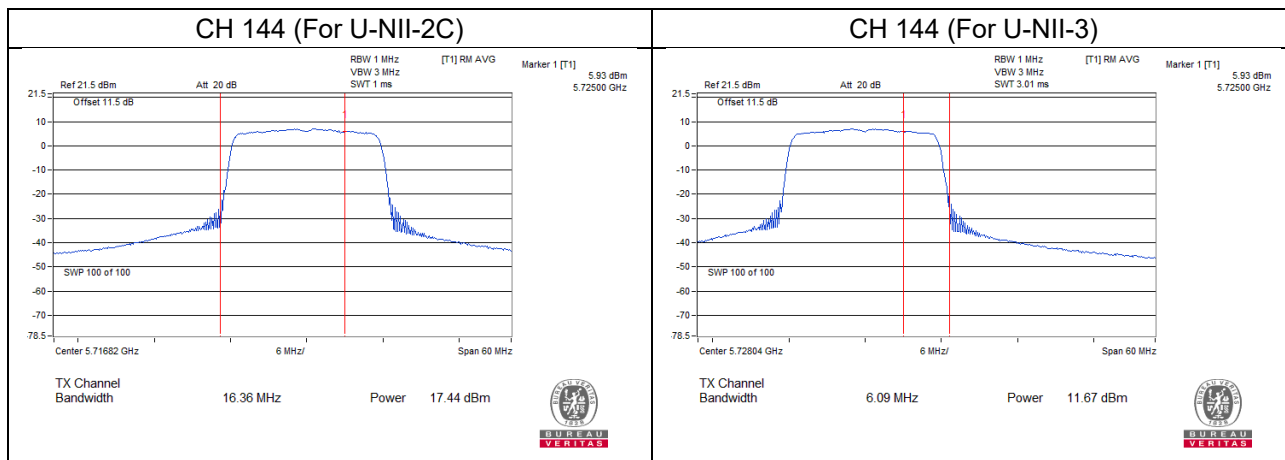


Chain 2

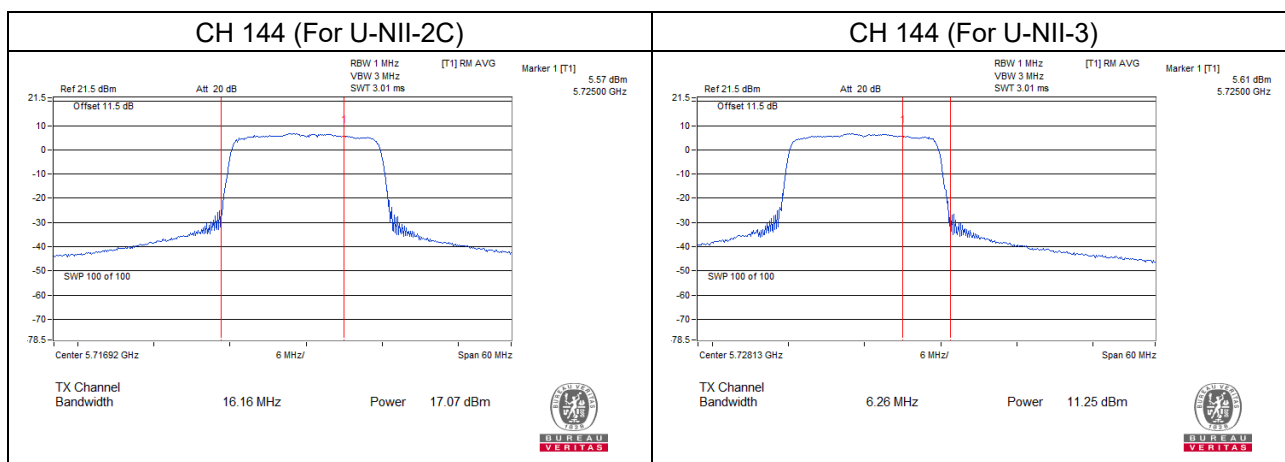


802.11ax (HE20)

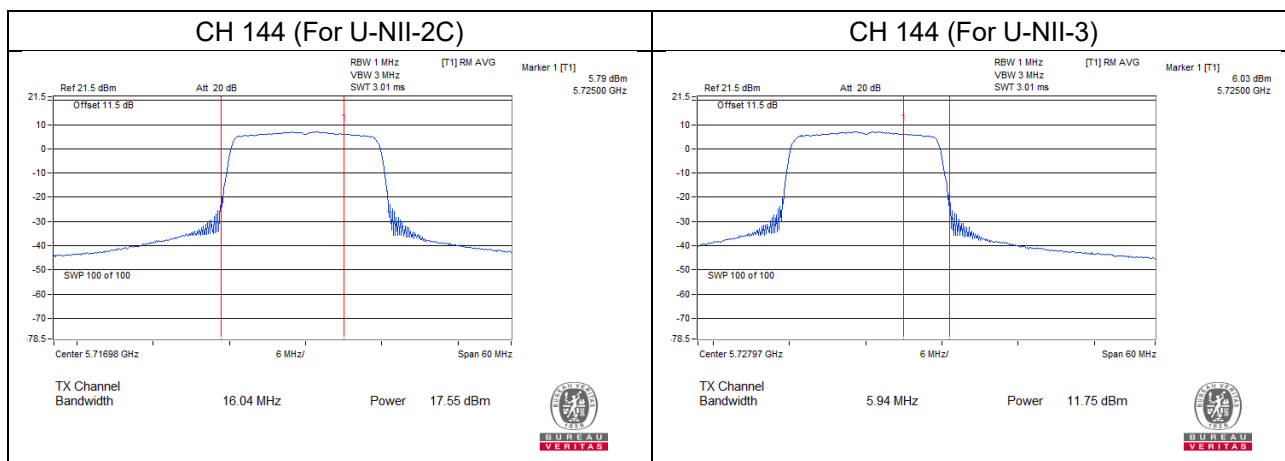
Chain 0



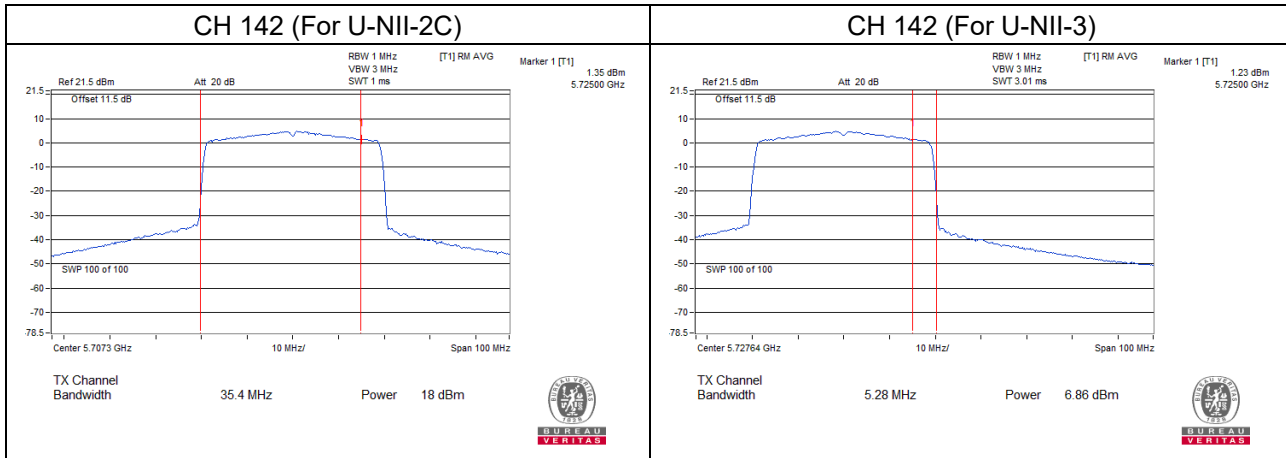
Chain 1



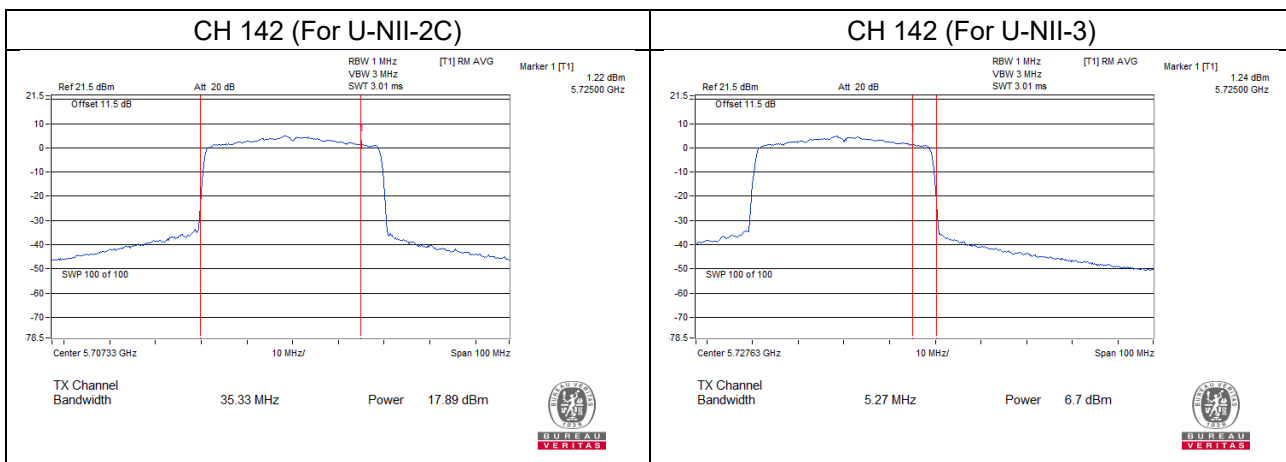
Chain 2



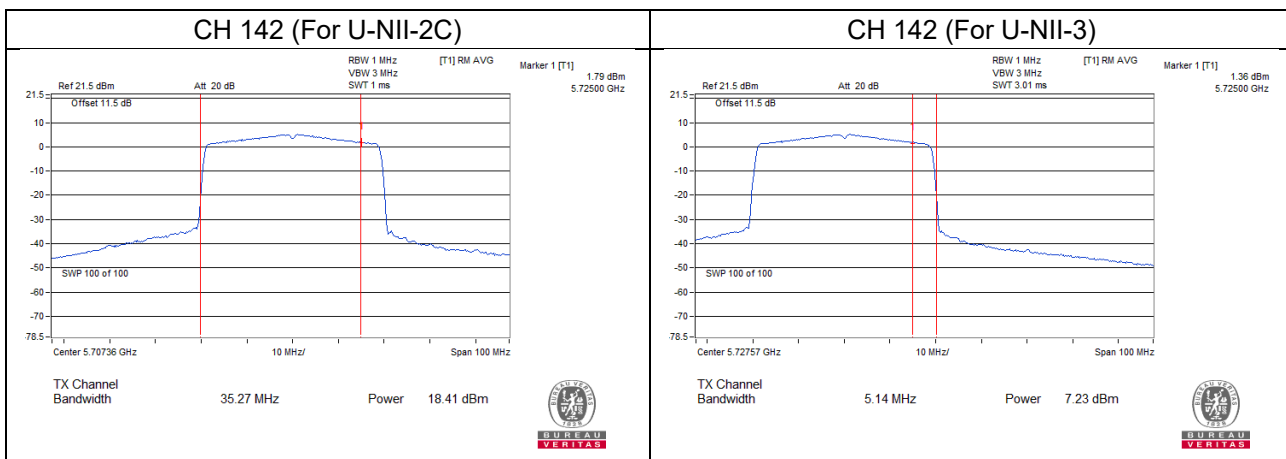
802.11ax (HE40)
Chain 0



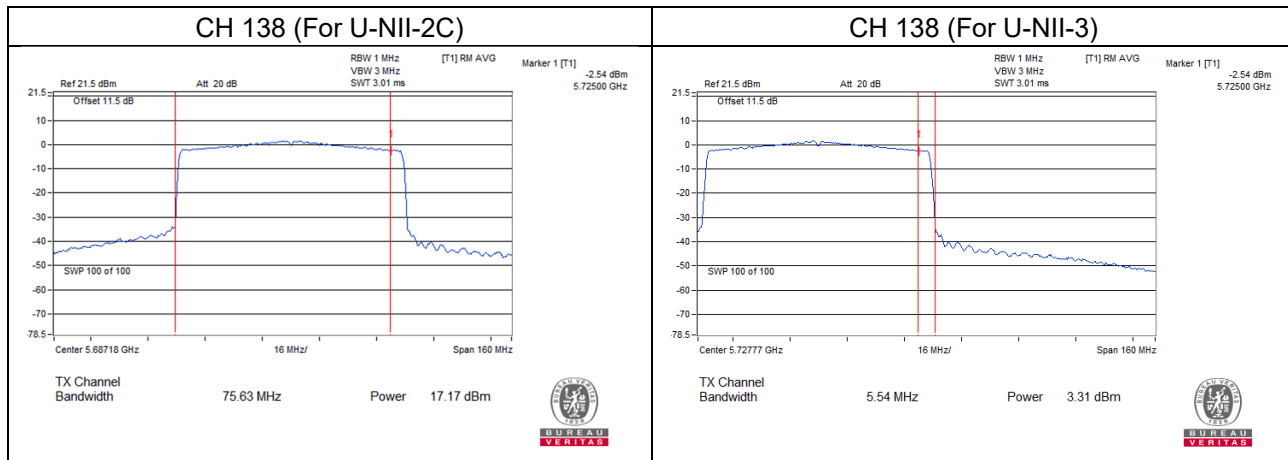
Chain 1



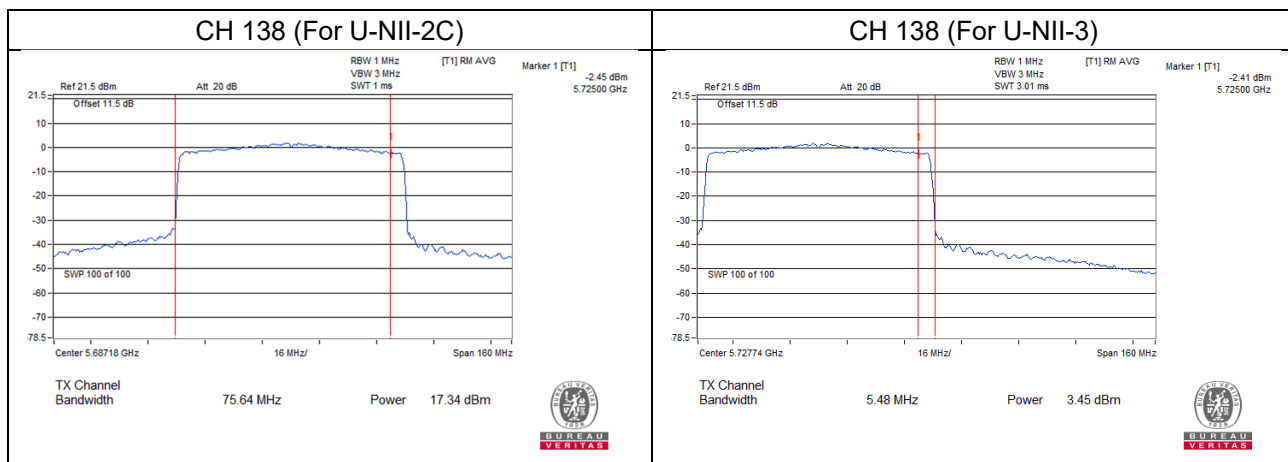
Chain 2



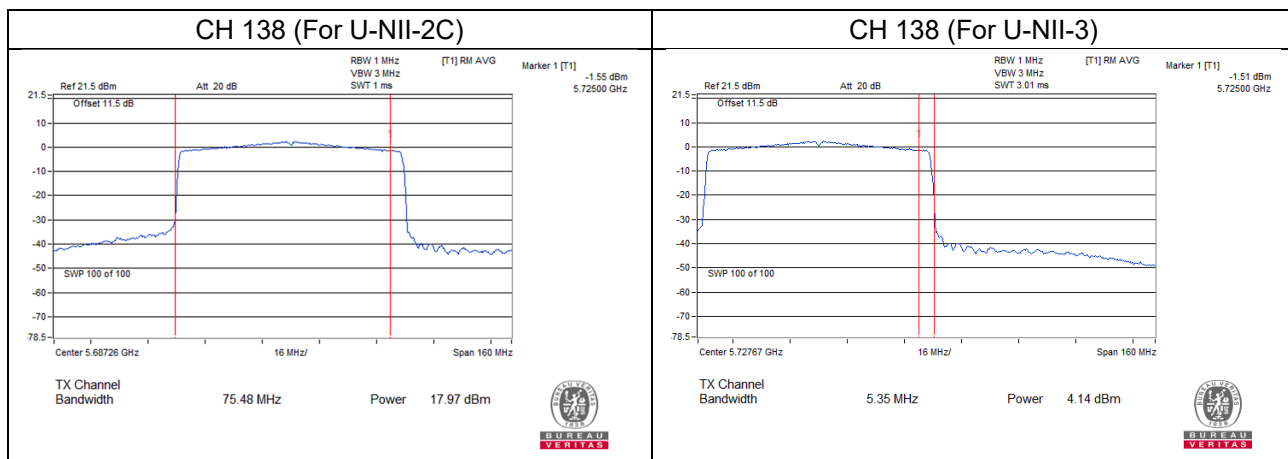
802.11ax (HE80)
Chain 0



Chain 1

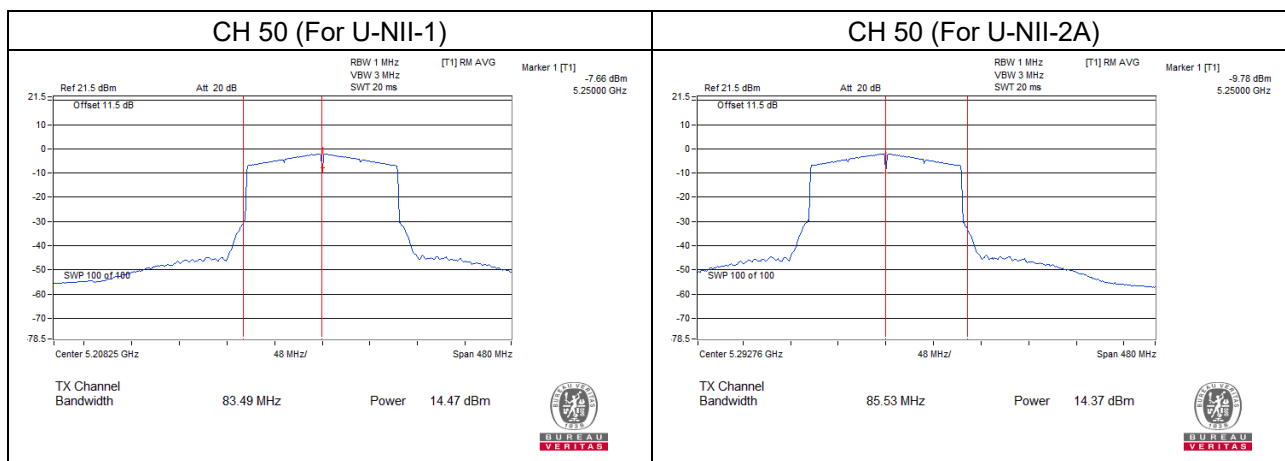


Chain 2

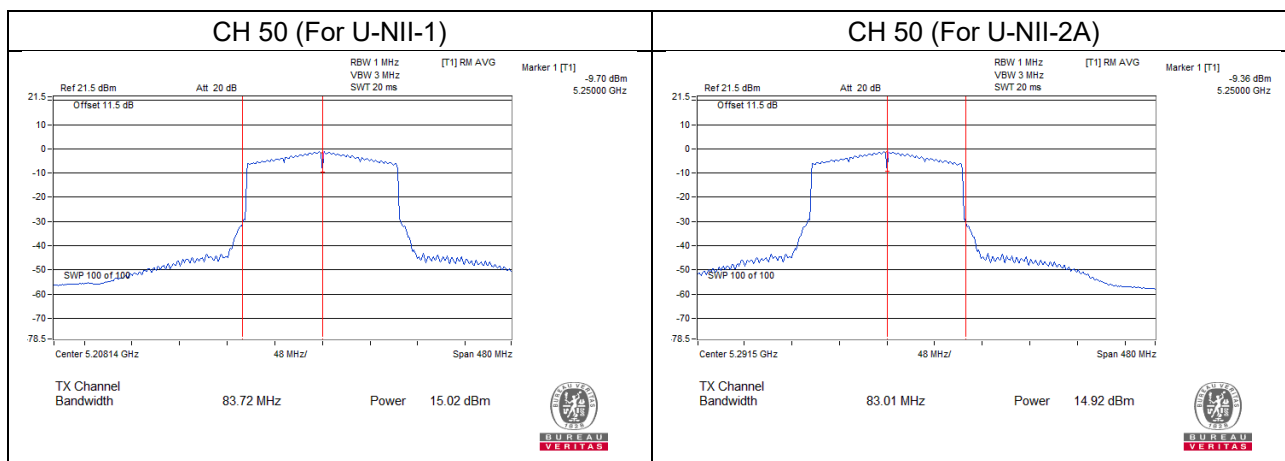


802.11ax (HE160)

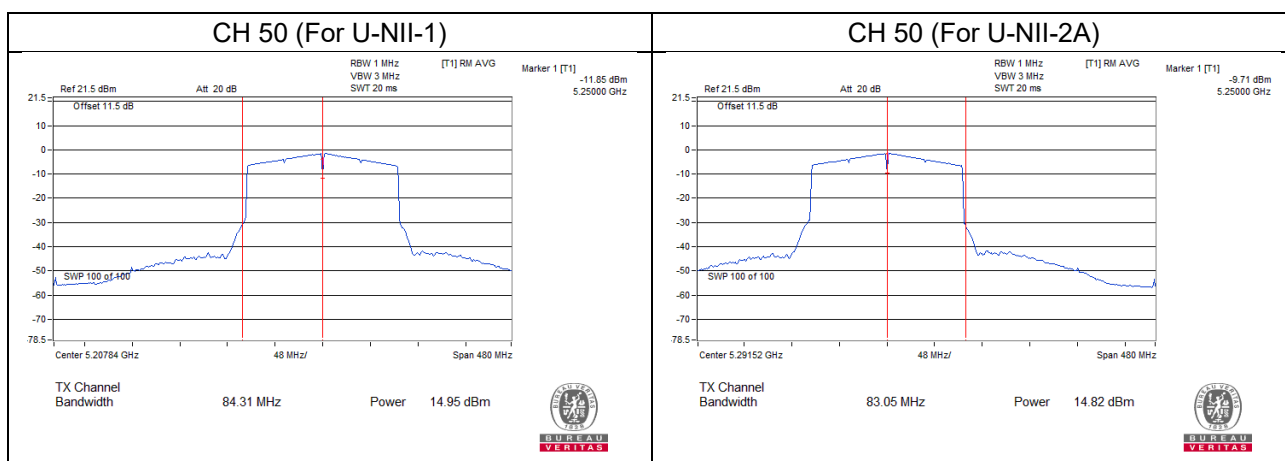
Chain 0



Chain 1



Chain 2



802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
36	5180	21.47	22.05	21.48	441.211	26.45	29.07	Pass
40	5200	22.63	22.75	23.02	572.044	27.57	29.07	Pass
48	5240	23.92	23.87	23.78	729.166	28.63	29.07	Pass
52	5260	17.42	18.35	17.89	185.117	22.67	23.06	Pass
60	5300	17.51	18.05	18.02	183.577	22.64	23.06	Pass
64	5320	17.42	18.01	17.98	181.255	22.58	23.06	Pass
100	5500	17.12	17.51	18.88	185.155	22.68	23.04	Pass
116	5580	17.32	17.52	18.59	182.722	22.62	23.04	Pass
140	5700	17.62	17.55	18.15	180.008	22.55	23.04	Pass
*144 (U-NII-2C)	5720	17.16	16.75	17.20	151.795	21.81	22.09	Pass
*144 (U-NII-3)	5720	11.39	10.93	11.40	39.964	16.02	29.18	Pass
149	5745	24.50	24.23	24.33	817.707	29.13	29.18	Pass
157	5785	24.66	24.12	24.33	821.660	29.15	29.18	Pass
165	5825	24.67	24.06	24.21	811.405	29.09	29.18	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.93 - 6) = 29.07$ dBm.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.94 - 6)].
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (6.96 - 6)].
- For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.82 - 6) = 29.18$ dBm.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
38	5190	18.71	18.99	18.65	226.835	23.56	29.07	Pass
46	5230	21.32	21.68	21.75	432.374	26.36	29.07	Pass
54	5270	17.58	18.16	17.89	184.261	22.65	23.06	Pass
62	5310	17.42	18.02	17.92	180.539	22.57	23.06	Pass
102	5510	17.37	17.72	18.32	181.652	22.59	23.04	Pass
110	5550	17.32	17.61	18.42	181.13	22.58	23.04	Pass
134	5670	17.51	17.59	18.08	178.044	22.51	23.04	Pass
*142 (U-NII-2C)	5710	17.66	17.58	18.09	180.041	22.55	23.04	Pass
*142 (U-NII-3)	5710	6.52	6.39	6.91	13.752	11.38	29.18	Pass
151	5755	24.51	24.00	24.23	798.527	29.02	29.18	Pass
159	5795	24.57	23.97	24.16	796.493	29.01	29.18	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.93-6) = 29.07$ dBm.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.94-6)].
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.96-6)].
- For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.82-6) = 29.18$ dBm.

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
42	5210	16.12	16.45	16.21	126.866	21.03	29.07	Pass
58	5290	17.51	17.95	17.88	180.113	22.56	23.06	Pass
106	5530	17.32	17.56	18.32	178.888	22.53	23.04	Pass
122	5610	17.49	17.72	18.25	182.095	22.60	23.04	Pass
*138 (U-NII-2C)	5690	17.17	17.34	17.97	168.981	22.28	23.04	Pass
*138 (U-NII-3)	5690	3.31	3.45	4.14	6.95	8.42	29.18	Pass
155	5775	21.48	21.13	21.40	408.361	26.11	29.18	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.93-6) = 29.07$ dBm.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.94-6)].
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.96-6)].
- For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.82-6) = 29.18$ dBm.

802.11ax (HE160) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2				
*50 (U-NII-1)	5250	14.47	15.02	14.95	91.019	19.59	29.07	Pass
*50 (U-NII-2A)	5250	14.37	14.92	14.82	88.737	19.48	23.06	Pass
114	5570	17.48	17.67	17.85	175.408	22.44	23.04	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.93-6) = 29.07$ dBm.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.94-6)].
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.96-6)].

7.3 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2			
36	5180	8.83	8.97	8.64	13.59	16.07	Pass
40	5200	10.87	10.88	10.49	15.52	16.07	Pass
48	5240	11.87	10.66	10.55	15.84	16.07	Pass
52	5260	4.86	5.62	4.94	9.92	10.06	Pass
60	5300	4.79	5.42	5.21	9.92	10.06	Pass
64	5320	4.85	5.29	5.29	9.92	10.06	Pass
100	5500	4.73	4.96	5.66	9.91	10.04	Pass
116	5580	4.93	5.14	5.34	9.91	10.04	Pass
140	5700	5.12	5.04	5.22	9.90	10.04	Pass
144 (U-NII-2C)	5720	5.25	4.95	5.12	9.88	10.04	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6dBi, so the power density limit shall be reduced to $17 - (6.93 - 6) = 16.07$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the power density limit shall be reduced to $11 - (6.94 - 6) = 10.06$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the power density limit shall be reduced to $11 - (6.96 - 6) = 10.04$ dBm/MHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2			
36	5180	8.33	8.91	8.37	13.32	16.07	Pass
40	5200	9.07	9.14	9.51	14.02	16.07	Pass
48	5240	10.88	10.73	10.53	15.49	16.07	Pass
52	5260	4.64	5.90	5.09	10.01	10.06	Pass
60	5300	4.65	5.46	4.99	9.82	10.06	Pass
64	5320	4.71	5.52	5.04	9.87	10.06	Pass
100	5500	4.49	4.83	6.13	9.98	10.04	Pass
116	5580	4.65	5.03	5.49	9.84	10.04	Pass
140	5700	5.18	5.08	5.45	10.01	10.04	Pass
144 (U-NII-2C)	5720	5.25	4.87	5.32	9.92	10.04	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-1, the directional gain is 6.93 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.93-6) = 16.07$ dBm/MHz.
4. For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.94-6) = 10.06$ dBm/MHz.
5. For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.96-6) = 10.04$ dBm/MHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2			
38	5190	2.63	2.88	2.54	7.46	16.07	Pass
46	5230	4.77	4.78	4.88	9.58	16.07	Pass
54	5270	1.99	2.70	2.17	7.07	10.06	Pass
62	5310	1.91	2.62	2.31	7.06	10.06	Pass
102	5510	1.93	2.24	2.66	7.06	10.04	Pass
110	5550	1.87	2.06	2.82	7.04	10.04	Pass
134	5670	2.02	1.95	2.30	6.86	10.04	Pass
142 (U-NII-2C)	5710	2.17	2.06	2.42	6.99	10.04	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.93-6) = 16.07$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.94-6) = 10.06$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.96-6) = 10.04$ dBm/MHz.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2			
42	5210	-2.90	-2.61	-2.89	1.97	16.07	Pass
58	5290	-0.99	-0.51	-0.87	3.99	10.06	Pass
106	5530	-1.21	-0.96	-0.24	3.99	10.04	Pass
122	5610	-1.04	-0.79	-0.31	4.07	10.04	Pass
138 (U-NII-2C)	5690	-0.87	-0.89	-0.48	4.03	10.04	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.93 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.93-6) = 16.07$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.94-6) = 10.06$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.96-6) = 10.04$ dBm/MHz.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2			
50 (U-NII-1)	5250	-4.98	-4.59	-4.47	0.10	16.07	Pass
50 (U-NII-2A)	5250	-5.04	-4.59	-4.57	0.04	10.06	Pass
114	5570	-4.72	-4.40	-4.17	0.35	10.04	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-1, the directional gain is 6.93 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.93-6) = 16.07$ dBm/MHz.
4. For U-NII-2A, the directional gain is 6.94 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.94-6) = 10.06$ dBm/MHz.
5. For U-NII-2C, the directional gain is 6.96 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.96-6) = 10.04$ dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)			Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2				
144 (U-NII-3)	5720	-1.39	-2.09	-1.18	3.23	5.45	29.18	Pass
149	5745	8.00	7.40	7.48	12.41	14.63	29.18	Pass
157	5785	8.11	7.35	7.47	12.43	14.65	29.18	Pass
165	5825	8.08	7.28	7.38	12.37	14.59	29.18	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.82-6) = 29.18$ dBm/500kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)			Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2				
144 (U-NII-3)	5720	-0.95	-1.38	-0.82	3.73	5.95	29.18	Pass
149	5745	7.91	7.79	7.81	12.61	14.83	29.18	Pass
157	5785	7.96	7.66	7.81	12.58	14.80	29.18	Pass
165	5825	8.12	7.64	7.72	12.6	14.82	29.18	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.82 - 6) = 29.18$ dBm/500kHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)			Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2				
142 (U-NII-3)	5710	-6.22	-6.52	-5.94	-1.45	0.77	29.18	Pass
151	5755	5.31	4.81	4.90	9.78	12.00	29.18	Pass
159	5795	5.38	4.78	4.80	9.77	11.99	29.18	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.82 - 6) = 29.18$ dBm/500kHz.

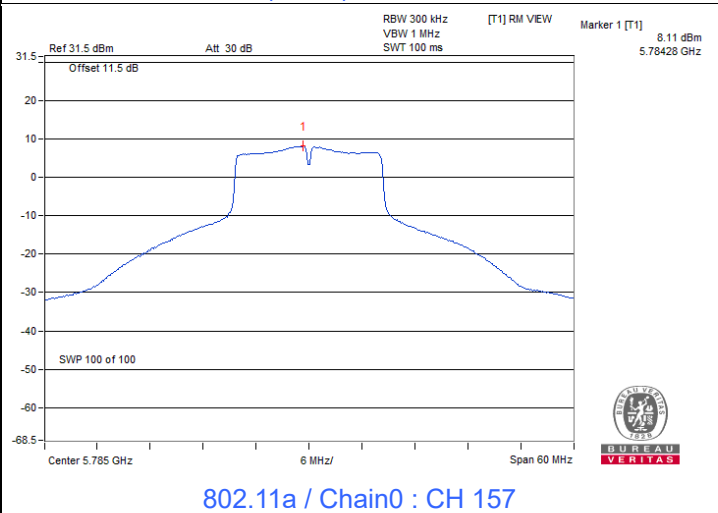
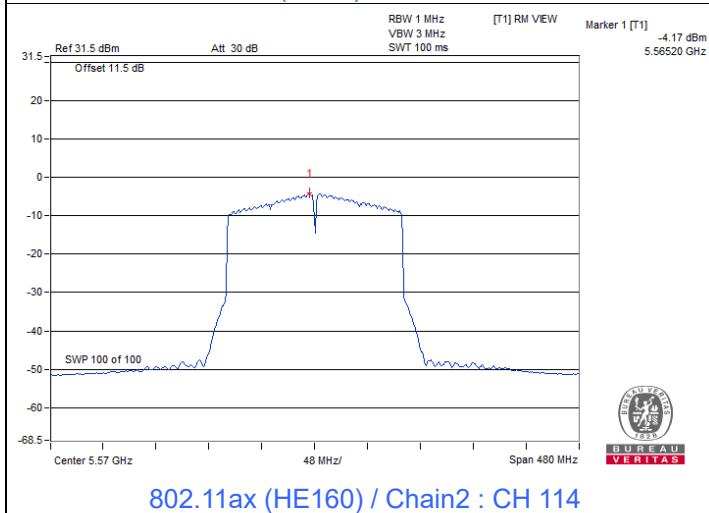
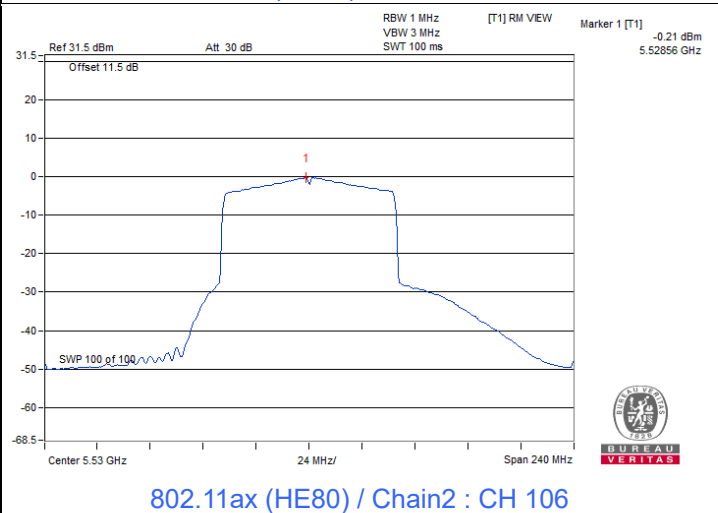
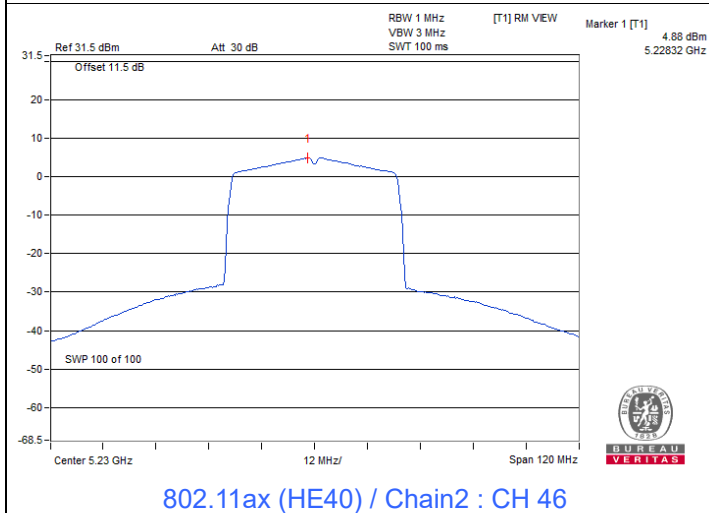
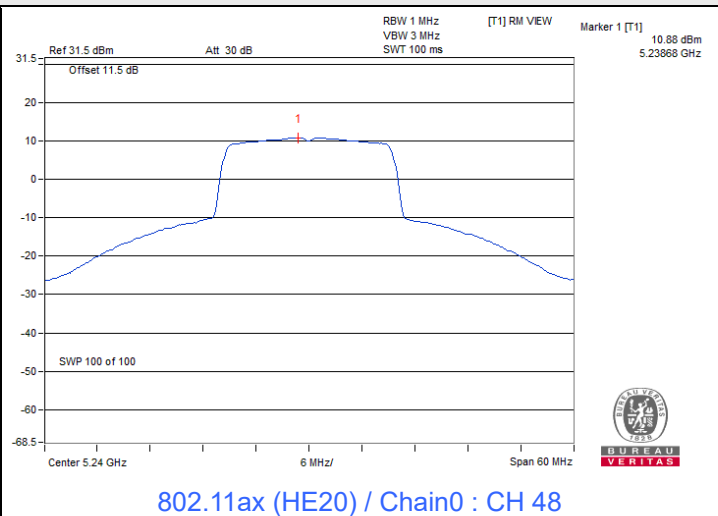
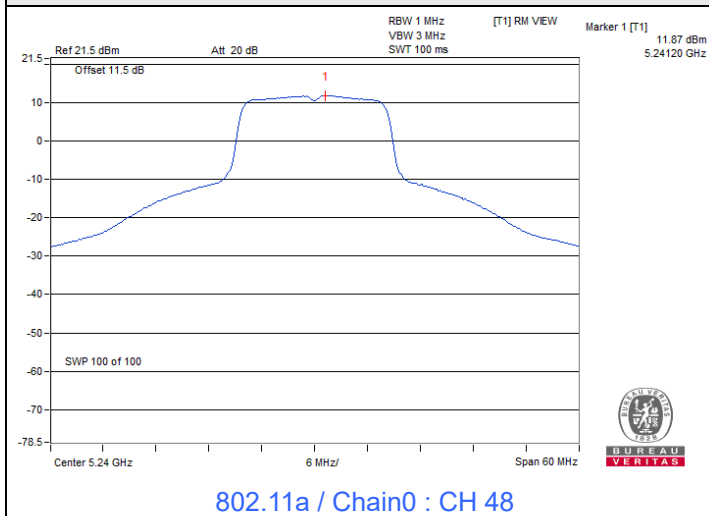
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)			Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2				
138 (U-NII-3)	5690	-9.74	-9.93	-9.23	-4.85	-2.63	29.18	Pass
155	5775	-0.67	-0.92	-0.69	4.01	6.23	29.18	Pass

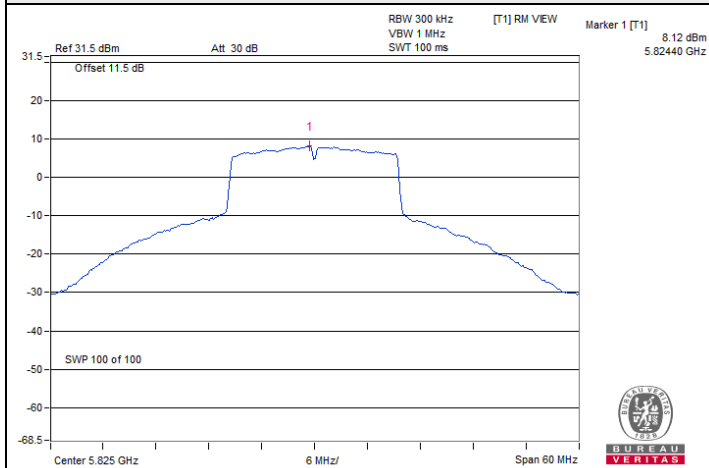
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.82 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.82 - 6) = 29.18$ dBm/500kHz.

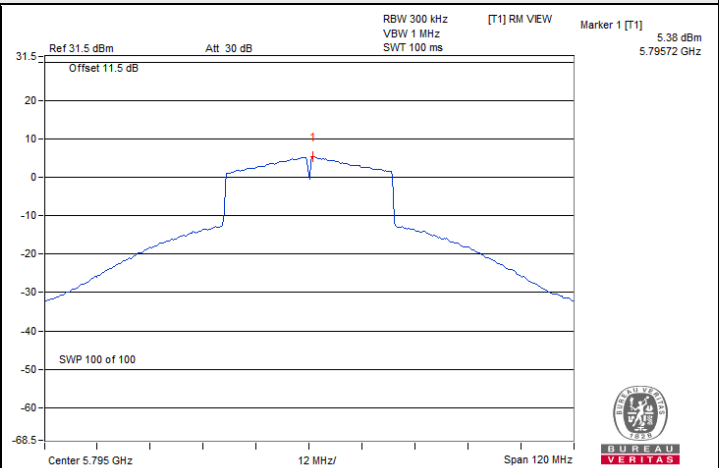
Spectrum Plot of Maximum Value



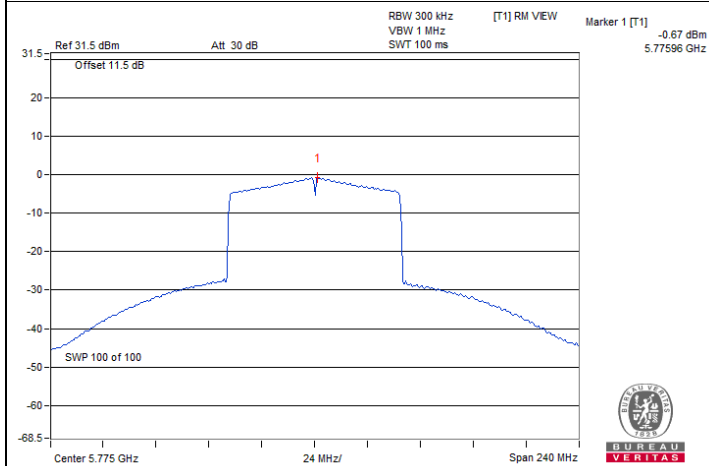
Spectrum Plot of Maximum Value



802.11ax (HE20) / Chain0 : CH 165



802.11ax (HE40) / Chain0 : CH 159



802.11ax (HE80) / Chain0 : CH 155

7.4 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)			Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2		
144 (U-NII-3)	5720	3.11	3.12	3.16	0.5	Pass
149	5745	16.34	16.40	16.39	0.5	Pass
157	5785	16.34	16.37	16.38	0.5	Pass
165	5825	16.35	16.37	16.39	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)			Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2		
144 (U-NII-3)	5720	4.36	4.41	4.45	0.5	Pass
149	5745	18.60	18.95	18.87	0.5	Pass
157	5785	18.68	18.80	18.77	0.5	Pass
165	5825	18.68	18.93	18.89	0.5	Pass

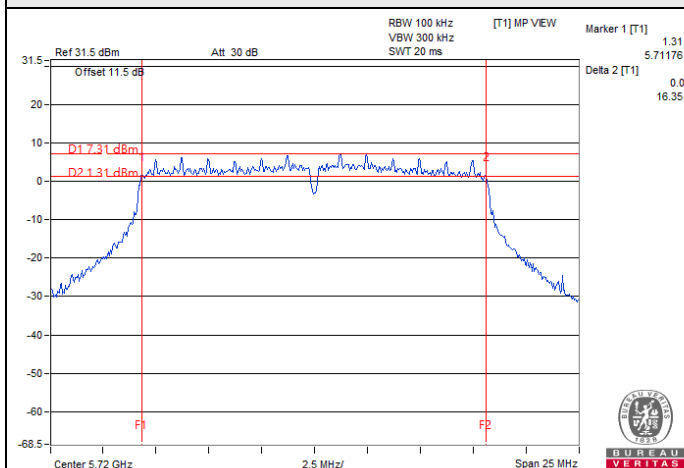
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)			Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2		
142 (U-NII-3)	5710	3.67	3.41	3.42	0.5	Pass
151	5755	35.47	35.26	37.43	0.5	Pass
159	5795	36.28	35.98	36.39	0.5	Pass

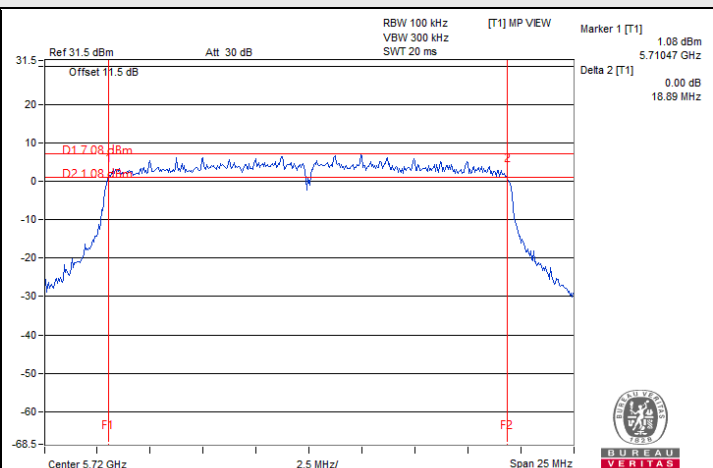
802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)			Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2		
138 (U-NII-3)	5690	3.47	1.32	2.68	0.5	Pass
155	5775	75.56	76.13	75.46	0.5	Pass

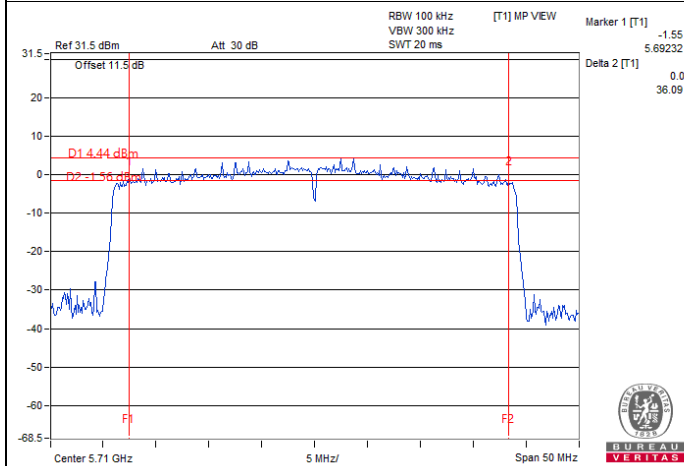
Spectrum Plot of Minimum Value



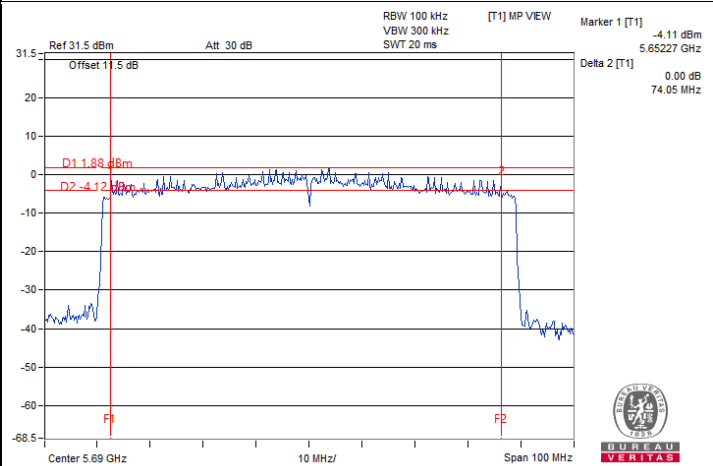
802.11a / Chain0 : CH 144 (U-NII-3)



802.11ax (HE20) / Chain0 : CH 144 (U-NII-3)



802.11ax (HE40) / Chain1 : CH 142 (U-NII-3)



802.11ax (HE80) / Chain1 : CH 138 (U-NII-3)

Notes:

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

7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	17.16	17.40	16.92
40	5200	20.28	21.84	18.72
48	5240	19.62	19.08	19.92
52	5260	16.68	16.62	16.56
60	5300	17.04	16.98	16.86
64	5320	16.92	16.92	16.86
100	5500	16.98	17.10	17.04
116	5580	17.04	17.04	17.10
140	5700	17.04	17.04	17.04
144 (U-NII-2C)	5720	13.58	13.64	13.58
144 (U-NII-3)	5720	3.46	3.40	3.46
149	5745	24.24	26.28	23.76
157	5785	25.32	26.64	25.20
165	5825	25.44	25.08	22.92

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
36	5180	19.32	19.32	19.08
40	5200	19.20	19.32	19.20
48	5240	20.16	19.44	20.28
52	5260	19.02	19.02	19.08
60	5300	19.20	19.26	19.14
64	5320	19.20	19.26	19.14
100	5500	19.26	19.20	19.20
116	5580	19.02	19.02	19.02
140	5700	19.20	19.08	19.14
144 (U-NII-2C)	5720	14.60	14.60	14.60
144 (U-NII-3)	5720	4.36	4.36	4.36
149	5745	26.04	27.36	24.84
157	5785	26.40	28.32	26.04
165	5825	26.76	26.52	23.76

802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
38	5190	37.92	37.92	38.16
46	5230	37.92	37.92	37.92
54	5270	37.68	37.80	37.68
62	5310	38.04	38.16	37.92
102	5510	37.92	38.04	37.92
110	5550	37.80	37.92	37.68
134	5670	38.16	38.04	38.04
142 (U-NII-2C)	5710	34.20	34.20	34.20
142 (U-NII-3)	5710	3.72	3.72	3.72
151	5755	51.84	47.04	44.16
159	5795	54.48	51.60	47.28

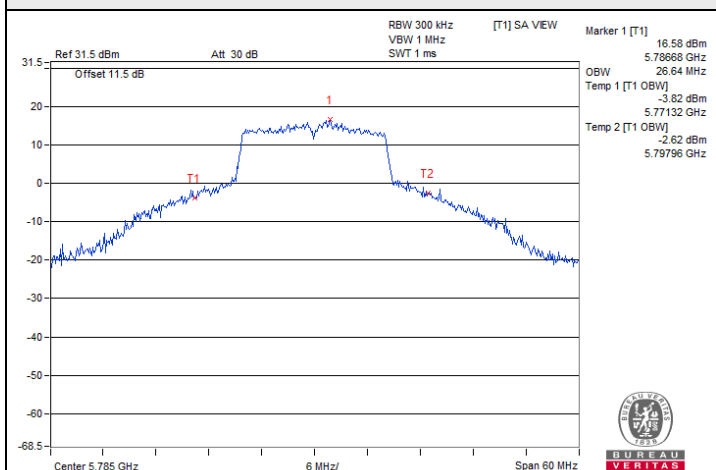
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
42	5210	77.28	77.28	77.28
58	5290	77.28	77.28	77.28
106	5530	77.04	77.04	77.04
122	5610	76.80	76.80	76.80
138 (U-NII-2C)	5690	73.88	73.88	73.64
138 (U-NII-3)	5690	2.92	2.92	3.40
155	5775	77.28	77.28	77.76

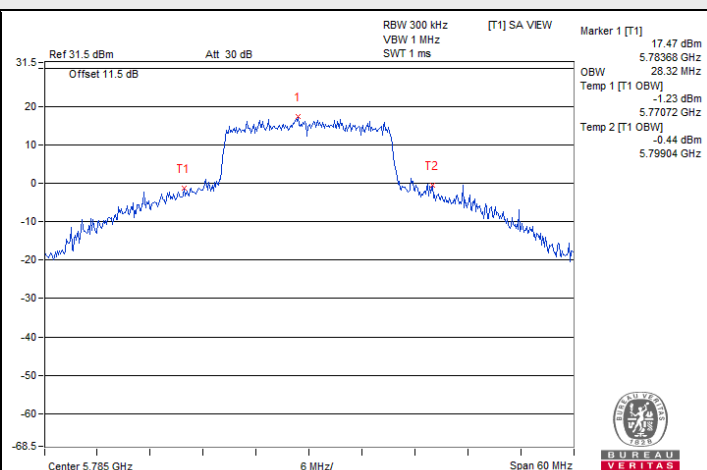
802.11ax (HE160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 0	Chain 1	Chain 2
50 (U-NII-1)	5250	78.72	77.76	77.76
50 (U-NII-2A)	5250	77.76	77.76	77.76
114	5570	156.48	156.00	155.52

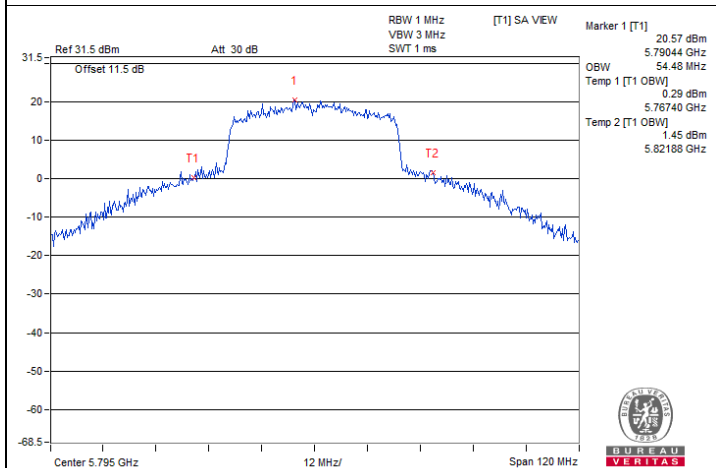
Spectrum Plot of Maximum Value



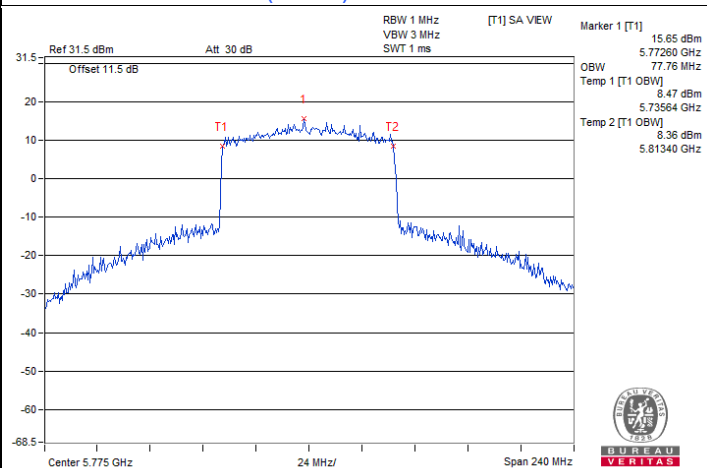
802.11a / Chain1 : CH 157



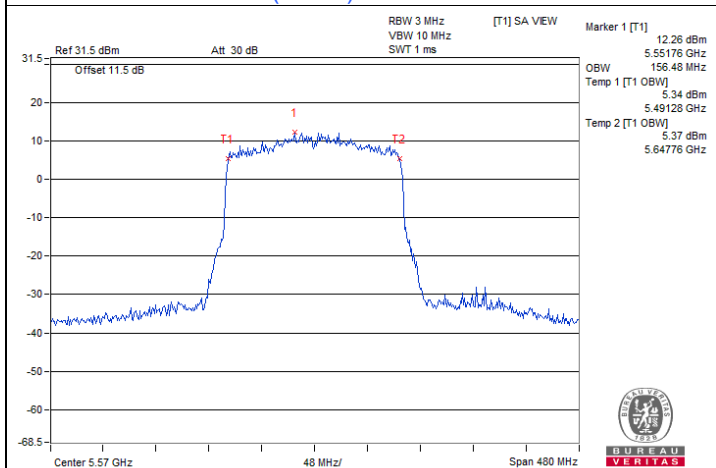
802.11ax (HE20) / Chain1 : CH 157



802.11ax (HE40) / Chain0 : CH 159

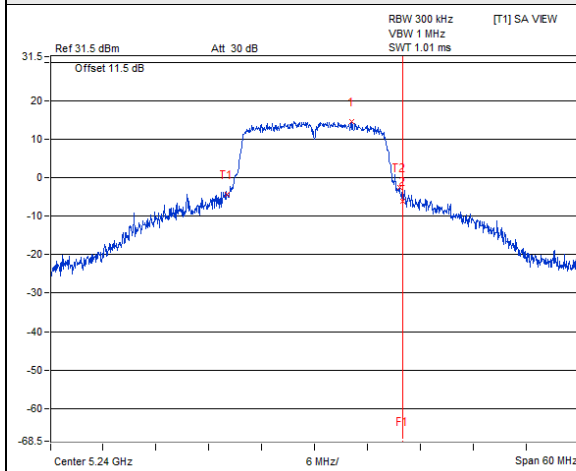


802.11ax (HE80) / Chain2 : CH 155

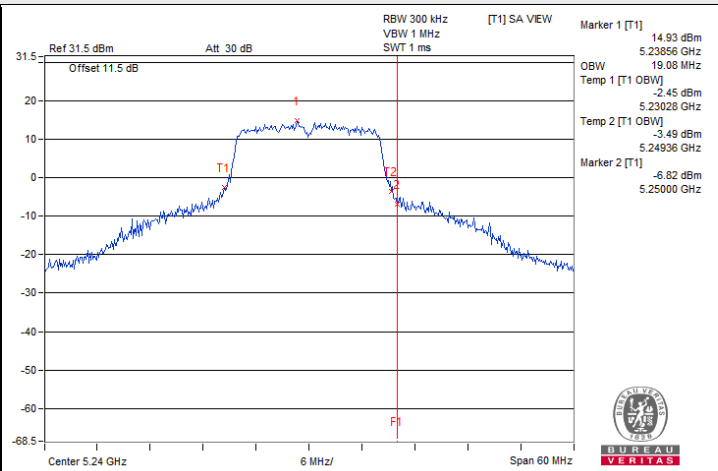


802.11ax (HE160) / Chain0 : CH 114

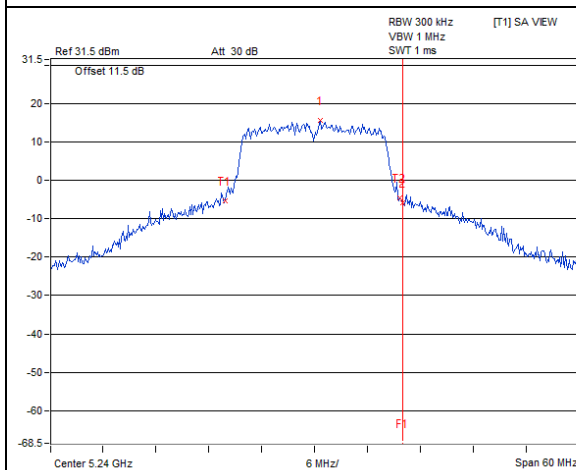
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



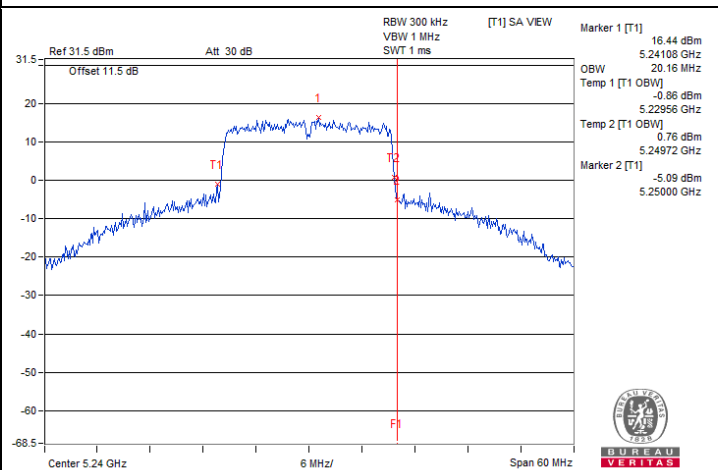
802.11a / Chain 0 : CH 48



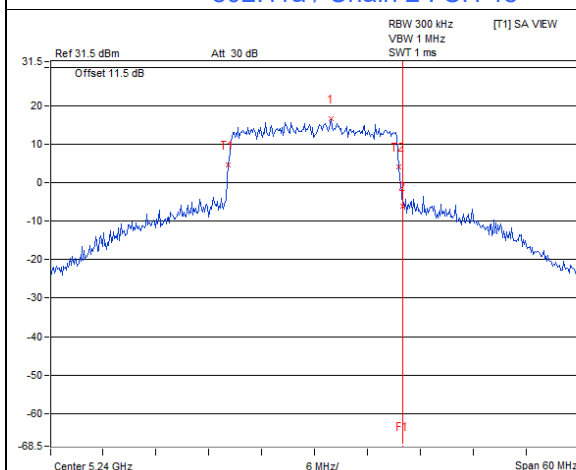
802.11a / Chain 1 : CH 48



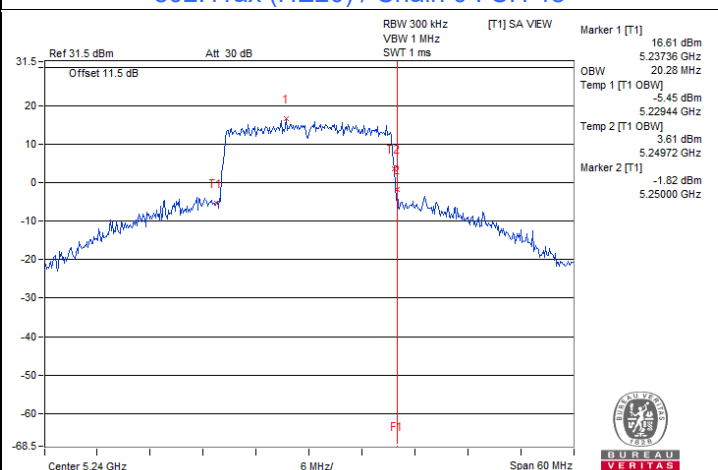
802.11a / Chain 2 : CH 48



802.11ax (HE20) / Chain 0 : CH 48

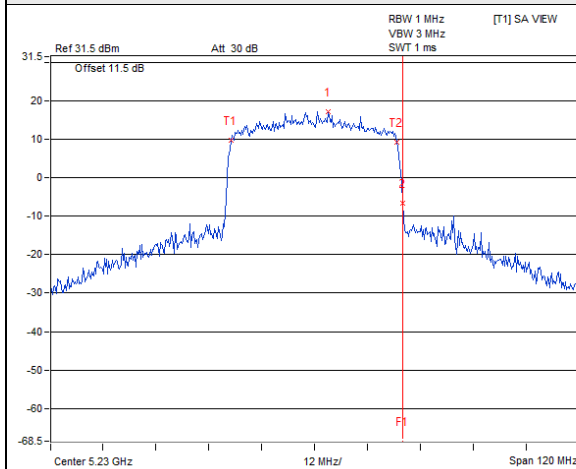


802.11ax (HE20) / Chain 1 : CH 48

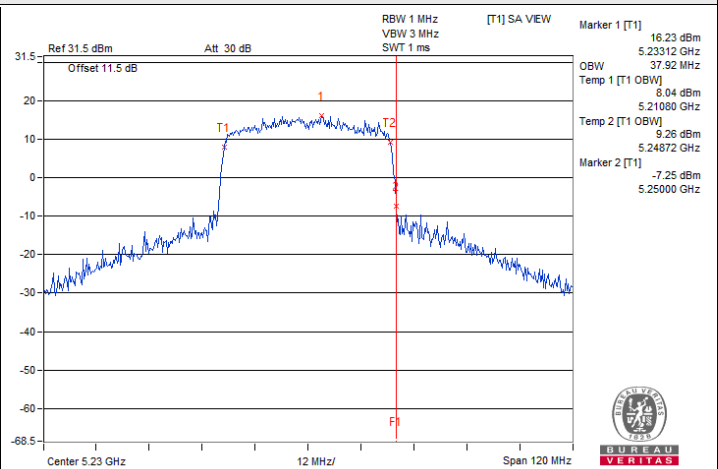


802.11ax (HE20) / Chain 2 : CH 48

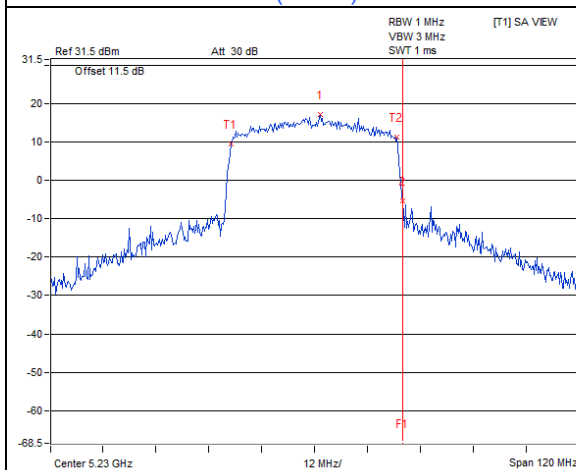
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



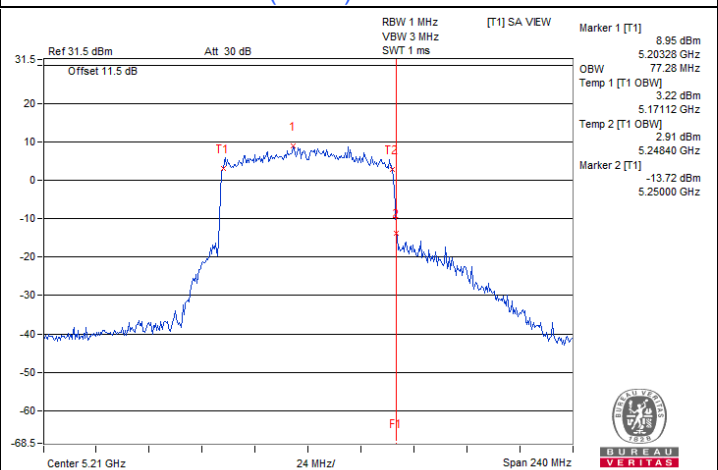
802.11ax (HE40) / Chain 0 : CH 46



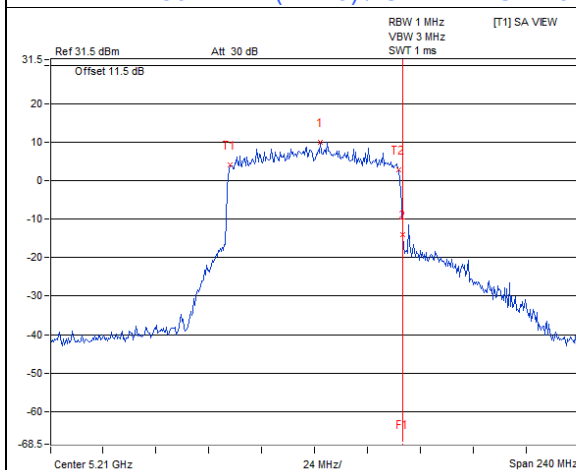
802.11ax (HE40) / Chain 1 : CH 46



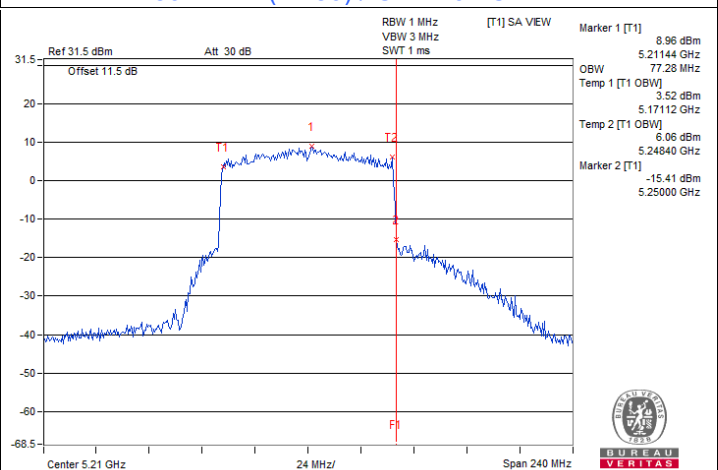
802.11ax (HE40) / Chain 2 : CH 46



802.11ax (HE80) / Chain 0 : CH 42



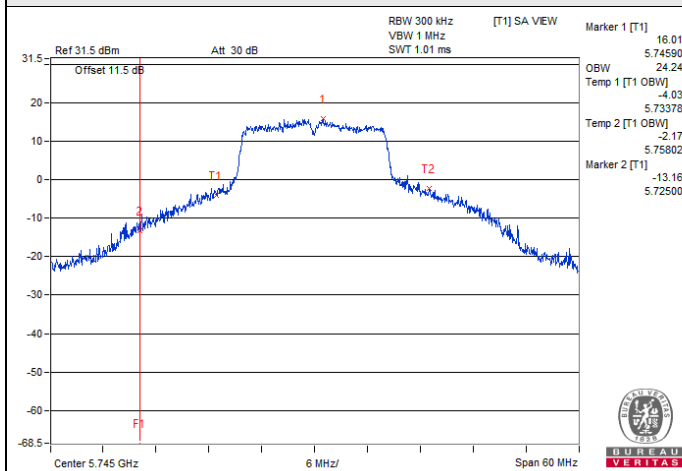
802.11ax (HE80) / Chain 1 : CH 42



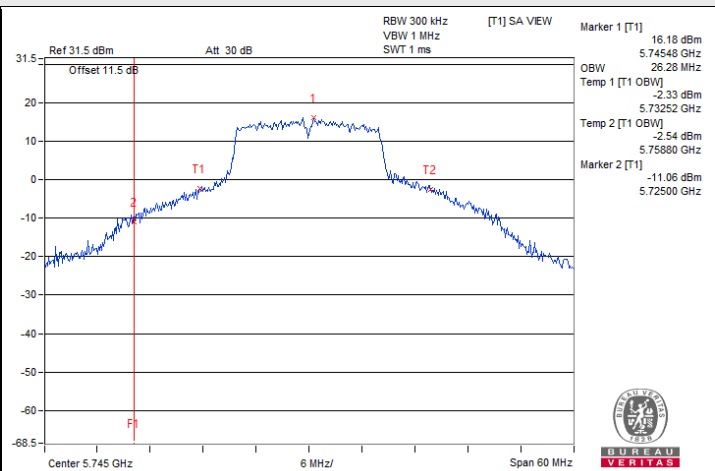
802.11ax (HE80) / Chain 2 : CH 42

Spectrum Plot for nearby DFS band

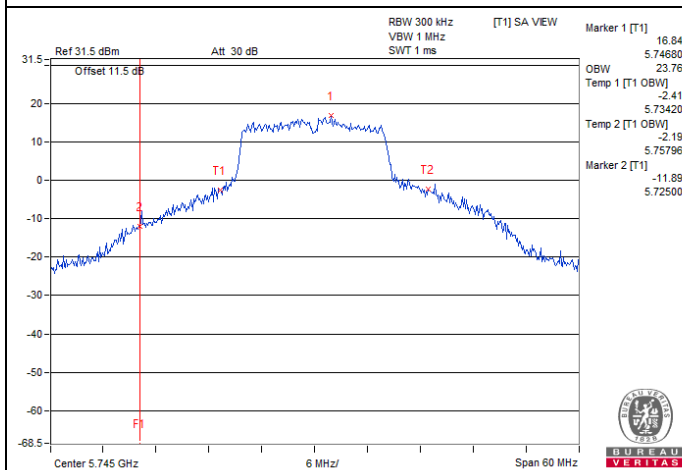
(DFS is required, if 99% OCP straddle into U-NII-2C band)



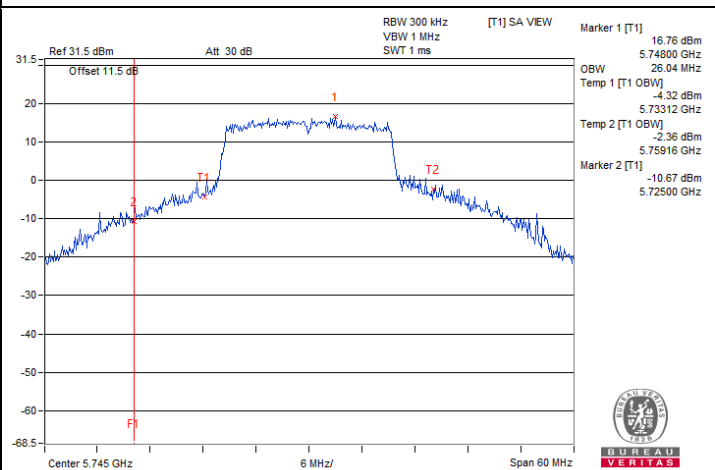
802.11a / Chain 0 : CH 149



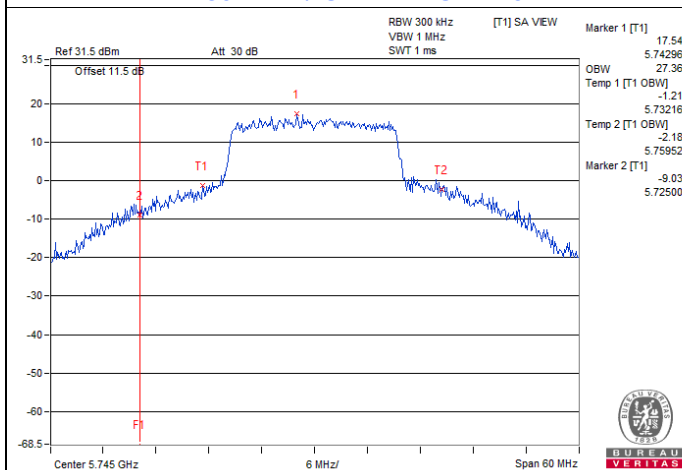
802.11a / Chain 1 : CH 149



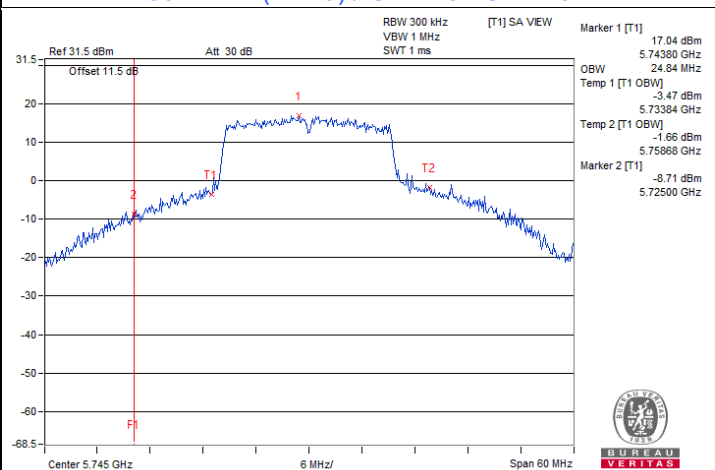
802.11a / Chain 2 : CH 149



802.11ax (HE20) / Chain 0 : CH 149

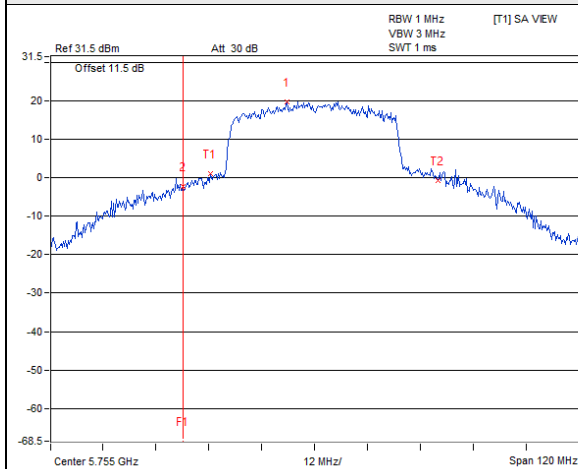


802.11ax (HE20) / Chain 1 : CH 149

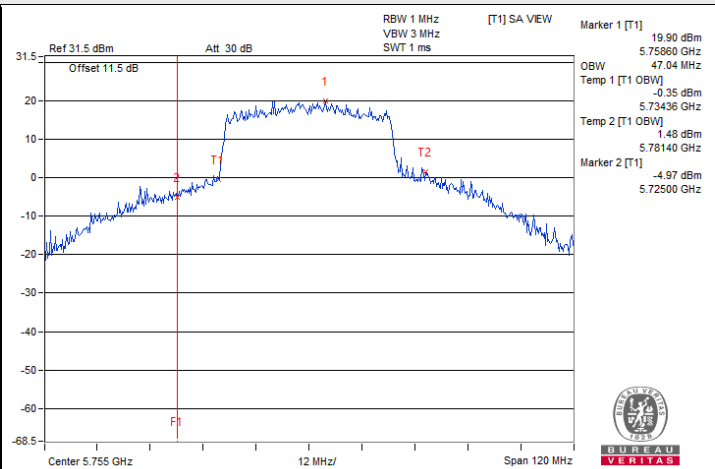


802.11ax (HE20) / Chain 2 : CH 149

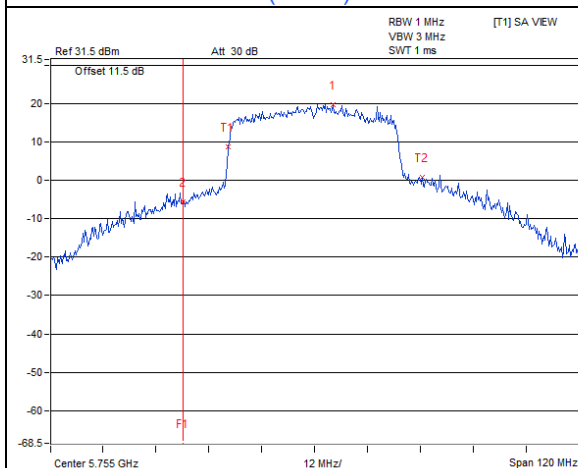
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C band)



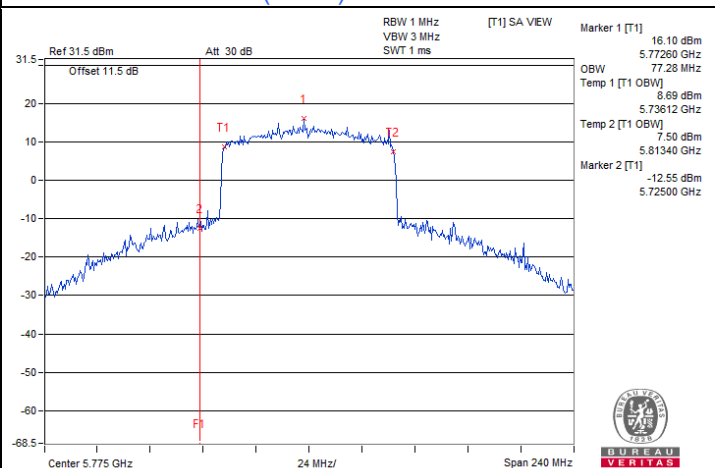
802.11ax (HE40) / Chain 0 : CH 151



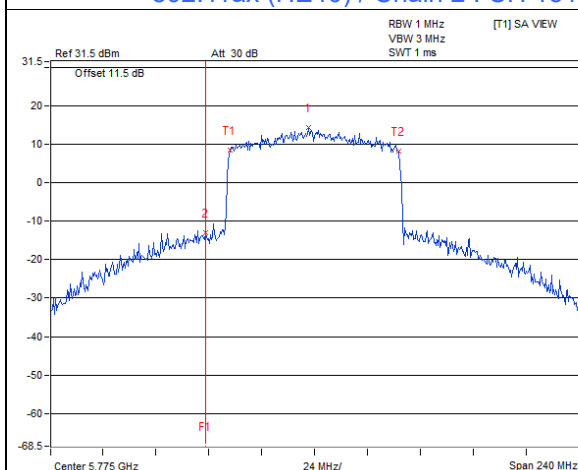
802.11ax (HE40) / Chain 1 : CH 151



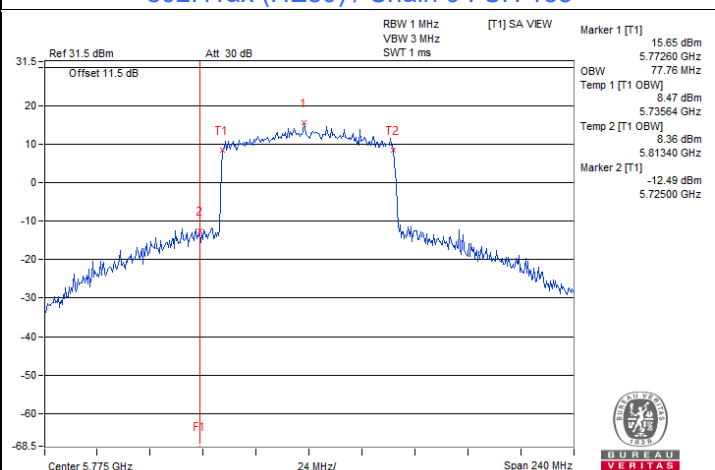
802.11ax (HE40) / Chain 2 : CH 151



802.11ax (HE80) / Chain 0 : CH 155



802.11ax (HE80) / Chain 1 : CH 155



802.11ax (HE80) / Chain 2 : CH 155

7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
--------------	----------------	---------------------------	--------------	------------	------------

802.11a

Frequency Stability Versus Temperature									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	5180.0025	Pass	5180.0014	Pass	5180.0034	Pass	5180.0025	Pass
30	120	5179.9888	Pass	5179.9899	Pass	5179.9882	Pass	5179.9881	Pass
20	120	5179.9847	Pass	5179.9822	Pass	5179.9844	Pass	5179.9805	Pass
10	120	5179.9908	Pass	5179.9925	Pass	5179.9911	Pass	5179.9915	Pass
0	120	5180.0076	Pass	5180.0074	Pass	5180.0068	Pass	5180.0086	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5179.9883	Pass	5179.9853	Pass	5179.9878	Pass	5179.9884	Pass
	120	5179.9847	Pass	5179.9822	Pass	5179.9844	Pass	5179.9805	Pass
	102	5179.9917	Pass	5179.992	Pass	5179.9935	Pass	5179.9956	Pass

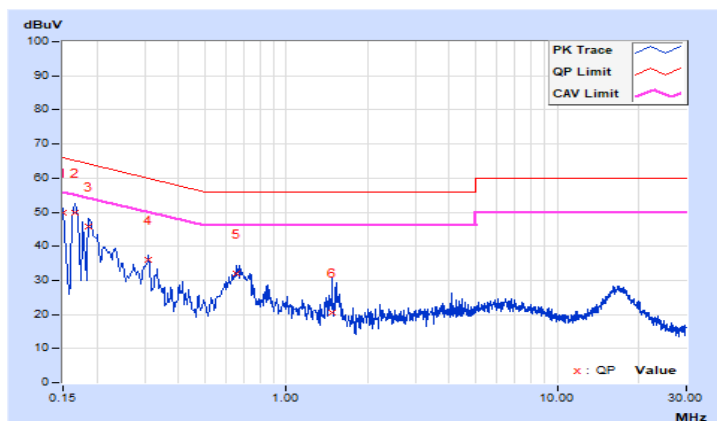
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.68	40.22	20.80	49.90	30.48	66.00	56.00	-16.10	-25.52
2	0.16600	9.69	40.20	21.44	49.89	31.13	65.16	55.16	-15.27	-24.03
3	0.18600	9.71	36.15	16.49	45.86	26.20	64.21	54.21	-18.35	-28.01
4	0.31000	9.76	26.25	17.64	36.01	27.40	59.97	49.97	-23.96	-22.57
5	0.65800	9.82	22.16	16.19	31.98	26.01	56.00	46.00	-24.02	-19.99
6	1.48200	9.87	10.65	3.88	20.52	13.75	56.00	46.00	-35.48	-32.25

Remarks:

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

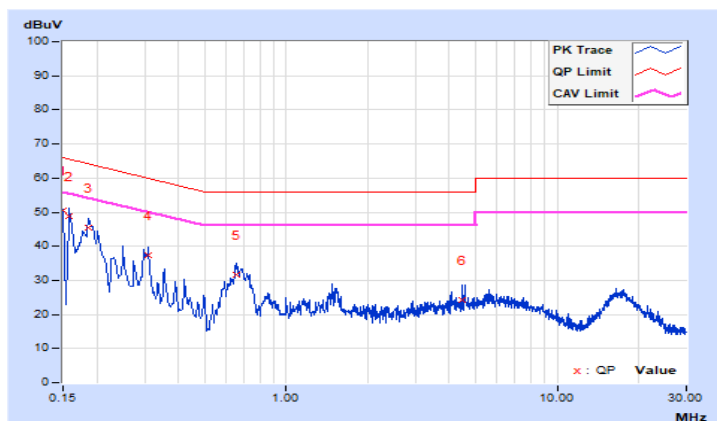


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.68	40.83	20.81	50.51	30.49	66.00	56.00	-15.49	-25.51
2	0.15800	9.69	39.12	19.59	48.81	29.28	65.57	55.57	-16.76	-26.29
3	0.18600	9.71	35.81	16.74	45.52	26.45	64.21	54.21	-18.69	-27.76
4	0.31000	9.77	27.73	18.31	37.50	28.08	59.97	49.97	-22.47	-21.89
5	0.65800	9.83	21.91	16.46	31.74	26.29	56.00	46.00	-24.26	-19.71
6	4.47000	9.98	14.16	4.40	24.14	14.38	56.00	46.00	-31.86	-31.62

Remarks:

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

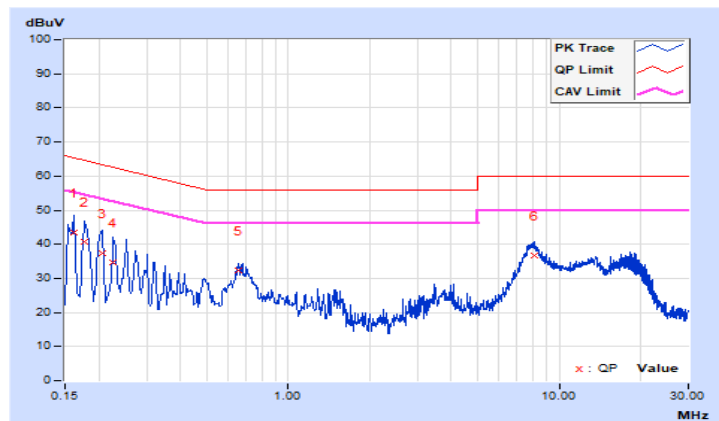


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	9.69	33.70	17.82	43.39	27.51	65.36	55.36	-21.97	-27.85
2	0.17800	9.70	30.94	14.25	40.64	23.95	64.58	54.58	-23.94	-30.63
3	0.20600	9.72	27.59	13.57	37.31	23.29	63.37	53.37	-26.06	-30.08
4	0.22600	9.73	24.90	12.22	34.63	21.95	62.60	52.60	-27.97	-30.65
5	0.65800	9.82	22.37	16.47	32.19	26.29	56.00	46.00	-23.81	-19.71
6	8.09000	10.02	26.60	21.11	36.62	31.13	60.00	50.00	-23.38	-18.87

Remarks:

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

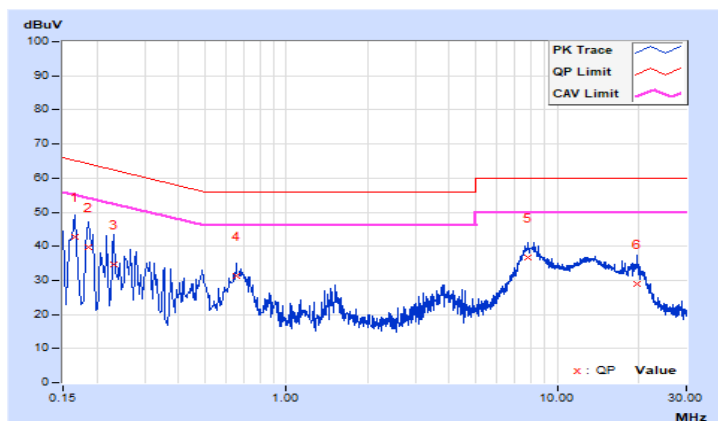


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16600	9.69	33.02	14.16	42.71	23.85	65.16	55.16	-22.45	-31.31
2	0.18600	9.71	30.13	13.53	39.84	23.24	64.21	54.21	-24.37	-30.97
3	0.23000	9.73	25.02	11.14	34.75	20.87	62.45	52.45	-27.70	-31.58
4	0.65400	9.83	21.62	14.99	31.45	24.82	56.00	46.00	-24.55	-21.18
5	7.78200	10.03	26.82	20.66	36.85	30.69	60.00	50.00	-23.15	-19.31
6	19.73000	10.20	18.79	13.83	28.99	24.03	60.00	50.00	-31.01	-25.97

Remarks:

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

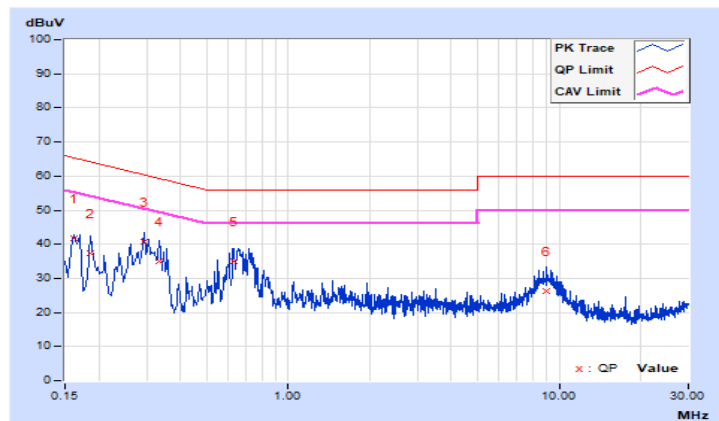


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16190	9.62	32.27	18.18	41.89	27.80	65.37	55.37	-23.48	-27.57
2	0.18600	9.63	27.84	13.77	37.47	23.40	64.21	54.21	-26.74	-30.81
3	0.29400	9.66	31.12	22.40	40.78	32.06	60.41	50.41	-19.63	-18.35
4	0.33400	9.67	25.24	17.20	34.91	26.87	59.35	49.35	-24.44	-22.48
5	0.63400	9.69	25.49	17.36	35.18	27.05	56.00	46.00	-20.82	-18.95
6	8.98600	9.80	16.30	10.36	26.10	20.16	60.00	50.00	-33.90	-29.84

Remarks:

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

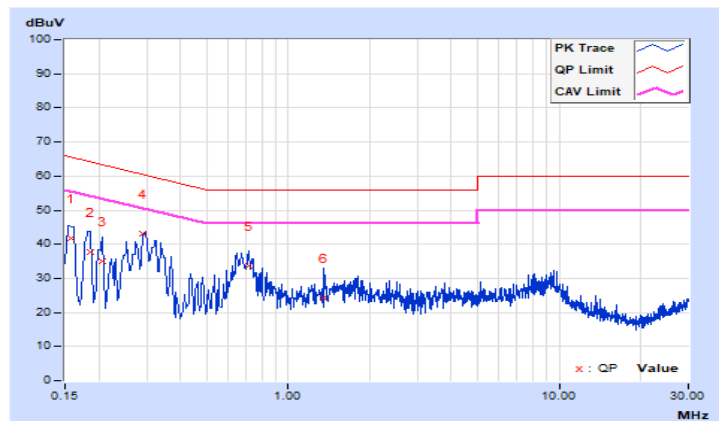


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.62	32.22	15.33	41.84	24.95	65.57	55.57	-23.73	-30.62
2	0.18600	9.63	28.17	13.27	37.80	22.90	64.21	54.21	-26.41	-31.31
3	0.20600	9.64	25.49	9.51	35.13	19.15	63.37	53.37	-28.24	-34.22
4	0.29059	9.66	33.30	21.40	42.96	31.06	60.51	50.51	-17.55	-19.45
5	0.71800	9.70	23.99	16.97	33.69	26.67	56.00	46.00	-22.31	-19.33
6	1.35800	9.71	14.40	7.57	24.11	17.28	56.00	46.00	-31.89	-28.72

Remarks:

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



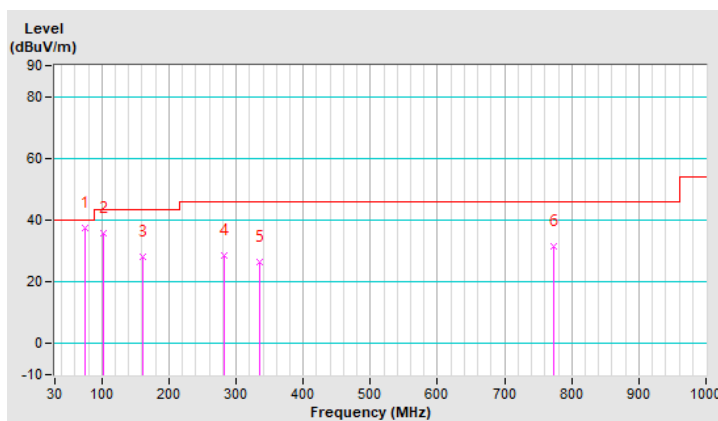
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	74.62	37.4 QP	40.0	-2.6	1.00 H	224	48.9	-11.5
2	101.78	35.7 QP	43.5	-7.8	1.00 H	112	48.7	-13.0
3	161.92	28.0 QP	43.5	-15.5	1.49 H	136	36.5	-8.5
4	282.20	28.7 QP	46.0	-17.3	1.49 H	355	36.5	-7.8
5	334.58	26.4 QP	46.0	-19.6	1.00 H	285	33.1	-6.7
6	773.02	31.7 QP	46.0	-14.3	1.49 H	5	29.4	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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

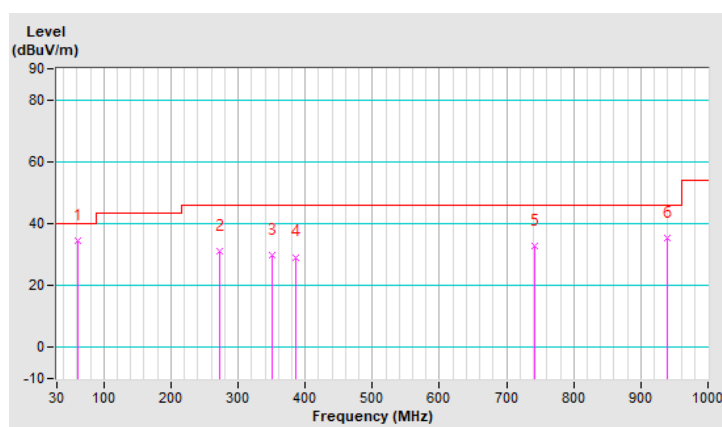


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	61.04	34.6 QP	40.0	-5.4	1.00 V	322	44.0	-9.4
2	272.50	30.9 QP	46.0	-15.1	1.00 V	354	39.1	-8.2
3	350.10	29.7 QP	46.0	-16.3	1.00 V	357	36.4	-6.7
4	385.02	29.2 QP	46.0	-16.8	1.00 V	345	35.2	-6.0
5	741.98	32.6 QP	46.0	-13.4	1.50 V	238	31.2	1.4
6	939.86	35.5 QP	46.0	-10.5	1.50 V	204	29.5	6.0

Remarks:

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

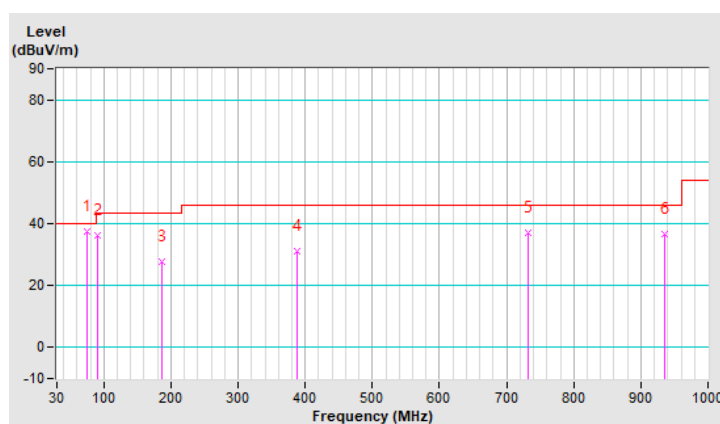


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	74.62	37.6 QP	40.0	-2.4	1.00 H	324	49.1	-11.5
2	90.14	36.1 QP	43.5	-7.4	1.00 H	162	50.4	-14.3
3	187.14	27.8 QP	43.5	-15.7	1.49 H	6	38.5	-10.7
4	386.96	30.9 QP	46.0	-15.1	1.49 H	6	36.9	-6.0
5	732.28	37.2 QP	46.0	-8.8	1.49 H	11	36.2	1.0
6	935.98	36.8 QP	46.0	-9.2	1.49 H	16	30.9	5.9

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

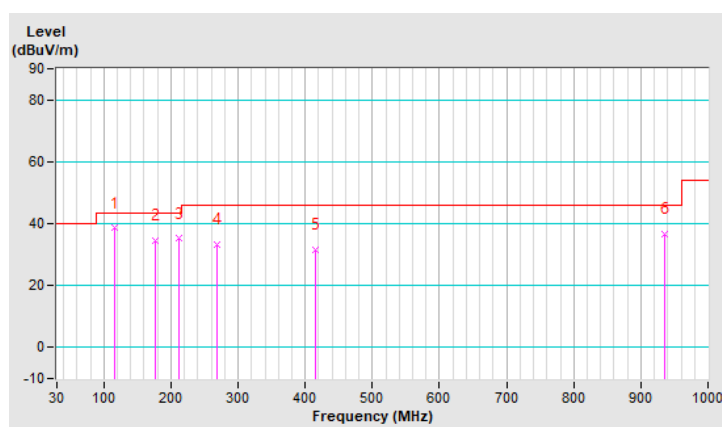


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	115.36	38.5 QP	43.5	-5.0	1.49 V	341	49.8	-11.3
2	177.44	34.4 QP	43.5	-9.1	1.49 V	144	44.0	-9.6
3	212.36	35.1 QP	43.5	-8.4	1.49 V	341	46.3	-11.2
4	268.62	33.2 QP	46.0	-12.8	1.49 V	144	41.6	-8.4
5	416.06	31.4 QP	46.0	-14.6	1.49 V	341	37.0	-5.6
6	935.98	36.7 QP	46.0	-9.3	1.00 V	195	30.8	5.9

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

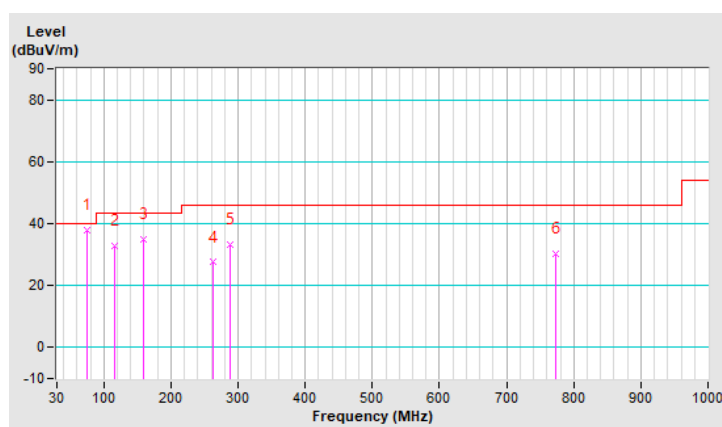


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	74.62	38.0 QP	40.0	-2.0	1.00 H	90	49.5	-11.5
2	115.36	33.0 QP	43.5	-10.5	1.00 H	284	44.3	-11.3
3	159.98	34.9 QP	43.5	-8.6	1.49 H	351	43.4	-8.5
4	262.80	27.5 QP	46.0	-18.5	1.49 H	336	36.2	-8.7
5	288.02	33.2 QP	46.0	-12.8	1.00 H	155	40.9	-7.7
6	773.02	30.4 QP	46.0	-15.6	1.00 H	331	28.1	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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

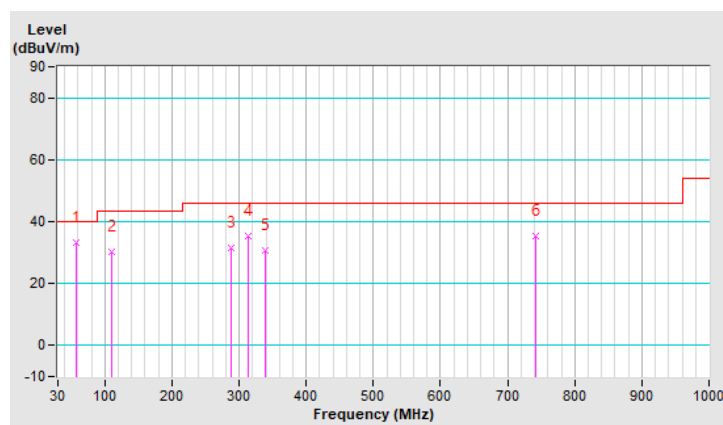


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	57.16	33.3 QP	40.0	-6.7	1.00 V	170	42.5	-9.2
2	109.54	30.3 QP	43.5	-13.2	1.00 V	334	42.1	-11.8
3	288.02	31.7 QP	46.0	-14.3	1.00 V	338	39.4	-7.7
4	313.24	35.4 QP	46.0	-10.6	1.00 V	338	42.5	-7.1
5	338.46	30.6 QP	46.0	-15.4	1.00 V	338	37.3	-6.7
6	741.98	35.3 QP	46.0	-10.7	1.50 V	265	33.9	1.4

Remarks:

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



7.9 Unwanted Emissions above 1 GHz

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	64.2 PK	74.0	-9.8	2.35 H	349	51.6	12.6
2	5150.00	49.8 AV	54.0	-4.2	2.35 H	349	37.2	12.6
3	*5180.00	119.0 PK			2.35 H	349	76.3	42.7
4	*5180.00	109.7 AV			2.35 H	349	67.0	42.7
5	#10360.00	62.0 PK	68.2	-6.2	1.95 H	178	39.5	22.5
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	73.4 PK	74.0	-0.6	1.61 V	327	60.8	12.6
2	5150.00	53.8 AV	54.0	-0.2	1.61 V	327	41.2	12.6
3	*5180.00	122.7 PK			1.61 V	327	80.0	42.7
4	*5180.00	111.8 AV			1.61 V	327	69.1	42.7
5	#10360.00	62.6 PK	68.2	-5.6	1.61 V	327	40.1	22.5

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 40 : 5200 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	72.0 PK	74.0	-2.0	2.30 H	347	59.4	12.6
2	5150.00	53.4 AV	54.0	-0.6	2.30 H	347	40.8	12.6
3	*5200.00	120.7 PK			2.30 H	347	78.2	42.5
4	*5200.00	111.3 AV			2.30 H	347	68.8	42.5
5	#10400.00	63.4 PK	68.2	-4.8	1.92 H	175	40.7	22.7
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	73.4 PK	74.0	-0.6	1.72 V	338	60.8	12.6
2	5150.00	53.8 AV	54.0	-0.2	1.72 V	338	41.2	12.6
3	*5200.00	123.0 PK			1.72 V	338	80.5	42.5
4	*5200.00	112.6 AV			1.72 V	338	70.1	42.5
5	#10400.00	64.1 PK	68.2	-4.1	2.02 V	252	41.4	22.7

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	TX 802.11a	Channel	CH 48 : 5240 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	*5240.00	121.6 PK			2.27 H	349	79.2	42.4
2	*5240.00	111.8 AV			2.27 H	349	69.4	42.4
3	5350.00	60.4 PK	74.0	-13.6	2.27 H	349	48.0	12.4
4	5350.00	47.8 AV	54.0	-6.2	2.27 H	349	35.4	12.4
5	#10480.00	62.3 PK	68.2	-5.9	1.92 H	177	39.7	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	123.3 PK			1.74 V	339	80.9	42.4
2	*5240.00	113.0 AV			1.74 V	339	70.6	42.4
3	5350.00	61.8 PK	74.0	-12.2	1.74 V	339	49.4	12.4
4	5350.00	48.4 AV	54.0	-5.6	1.74 V	339	36.0	12.4
5	#10480.00	62.5 PK	68.2	-5.7	1.33 V	215	39.9	22.6

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	TX 802.11a	Channel	CH 52 : 5260 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.0 PK	74.0	-14.0	1.23 H	74	47.4	12.6
2	5150.00	47.3 AV	54.0	-6.7	1.23 H	74	34.7	12.6
3	*5260.00	121.1 PK			1.23 H	74	78.7	42.4
4	*5260.00	111.2 AV			1.23 H	74	68.8	42.4
5	#10520.00	65.3 PK	68.2	-2.9	1.53 H	329	42.8	22.5
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	60.7 PK	74.0	-13.3	1.56 V	327	48.1	12.6
2	5150.00	47.7 AV	54.0	-6.3	1.56 V	327	35.1	12.6
3	*5260.00	121.7 PK			1.56 V	327	79.3	42.4
4	*5260.00	111.5 AV			1.56 V	327	69.1	42.4
5	#10520.00	63.5 PK	68.2	-4.7	1.91 V	338	41.0	22.5

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 60 : 5300 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	118.7 PK			1.27 H	78	76.3	42.4
2	*5300.00	109.6 AV			1.27 H	78	67.2	42.4
3	5350.00	67.9 PK	74.0	-6.1	1.27 H	78	55.5	12.4
4	5350.00	50.0 AV	54.0	-4.0	1.27 H	78	37.6	12.4
5	10600.00	65.2 PK	74.0	-8.8	1.55 H	332	42.5	22.7
6	10600.00	51.9 AV	54.0	-2.1	1.55 H	332	29.2	22.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	119.2 PK			1.57 V	310	76.8	42.4
2	*5300.00	109.8 AV			1.57 V	310	67.4	42.4
3	5350.00	72.4 PK	74.0	-1.6	1.57 V	310	60.0	12.4
4	5350.00	53.3 AV	54.0	-0.7	1.57 V	310	40.9	12.4
5	10600.00	63.9 PK	74.0	-10.1	1.92 V	335	41.2	22.7
6	10600.00	50.9 AV	54.0	-3.1	1.92 V	335	28.2	22.7

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	118.0 PK			1.29 H	76	75.5	42.5
2	*5320.00	108.5 AV			1.29 H	76	66.0	42.5
3	5350.00	69.3 PK	74.0	-4.7	1.29 H	76	56.9	12.4
4	5350.00	49.8 AV	54.0	-4.2	1.29 H	76	37.4	12.4
5	10640.00	64.4 PK	74.0	-9.6	1.57 H	336	41.6	22.8
6	10640.00	51.4 AV	54.0	-2.6	1.57 H	336	28.6	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	118.5 PK			1.64 V	309	76.0	42.5
2	*5320.00	108.8 AV			1.64 V	309	66.3	42.5
3	5350.00	69.7 PK	74.0	-4.3	1.64 V	309	57.3	12.4
4	5350.00	52.6 AV	54.0	-1.4	1.64 V	309	40.2	12.4
5	10640.00	63.8 PK	74.0	-10.2	1.96 V	338	41.0	22.8
6	10640.00	50.7 AV	54.0	-3.3	1.96 V	338	27.9	22.8

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.

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.2 PK	74.0	-13.8	2.19 H	10	47.5	12.7
2	5460.00	48.4 AV	54.0	-5.6	2.19 H	10	35.7	12.7
3	#5470.00	60.7 PK	68.2	-7.5	2.19 H	10	48.0	12.7
4	*5500.00	116.1 PK			2.19 H	10	72.9	43.2
5	*5500.00	106.7 AV			2.19 H	10	63.5	43.2
6	11000.00	63.4 PK	74.0	-10.6	1.54 H	332	40.5	22.9
7	11000.00	49.6 AV	54.0	-4.4	1.54 H	332	26.7	22.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.5 PK	74.0	-13.5	1.52 V	314	47.8	12.7
2	5460.00	48.6 AV	54.0	-5.4	1.52 V	314	35.9	12.7
3	#5470.00	60.8 PK	68.2	-7.4	1.52 V	314	48.1	12.7
4	*5500.00	116.6 PK			1.52 V	314	73.4	43.2
5	*5500.00	107.1 AV			1.52 V	314	63.9	43.2
6	11000.00	63.1 PK	74.0	-10.9	1.92 V	338	40.2	22.9
7	11000.00	49.4 AV	54.0	-4.6	1.92 V	338	26.5	22.9

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	TX 802.11a	Channel	CH 116 : 5580 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.6 PK			2.22 H	4	73.5	43.1
2	*5580.00	106.9 AV			2.22 H	4	63.8	43.1
3	11160.00	63.6 PK	74.0	-10.4	1.52 H	325	40.5	23.1
4	11160.00	49.6 AV	54.0	-4.4	1.52 H	325	26.5	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.9 PK			1.52 V	313	73.8	43.1
2	*5580.00	107.2 AV			1.52 V	313	64.1	43.1
3	11160.00	63.4 PK	74.0	-10.6	1.95 V	335	40.3	23.1
4	11160.00	49.5 AV	54.0	-4.5	1.95 V	335	26.4	23.1

Remarks:

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

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	115.5 PK			2.22 H	7	72.4	43.1
2	*5700.00	106.5 AV			2.22 H	7	63.4	43.1
3	#5725.00	61.4 PK	68.2	-6.8	2.22 H	7	48.2	13.2
4	11400.00	64.5 PK	74.0	-9.5	1.57 H	335	40.5	24.0
5	11400.00	50.6 AV	54.0	-3.4	1.57 H	335	26.6	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.4 PK			1.51 V	312	73.3	43.1
2	*5700.00	106.7 AV			1.51 V	312	63.6	43.1
3	#5725.00	61.6 PK	68.2	-6.6	1.51 V	312	48.4	13.2
4	11400.00	64.3 PK	74.0	-9.7	1.95 V	332	40.3	24.0
5	11400.00	50.5 AV	54.0	-3.5	1.95 V	332	26.5	24.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 144 : 5720 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.2 PK	68.2	-8.0	2.21 H	5	47.5	12.7
2	*5720.00	116.2 PK			2.21 H	5	72.8	43.4
3	*5720.00	105.9 AV			2.21 H	5	62.5	43.4
4	#5850.00	60.8 PK	68.2	-7.4	2.21 H	5	47.2	13.6
5	11440.00	64.3 PK	74.0	-9.7	1.47 H	316	40.3	24.0
6	11440.00	50.5 AV	54.0	-3.5	1.47 H	316	26.5	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.3 PK	68.2	-7.9	1.37 V	315	47.6	12.7
2	*5720.00	116.6 PK			1.37 V	315	73.2	43.4
3	*5720.00	106.6 AV			1.37 V	315	63.2	43.4
4	#5850.00	60.9 PK	68.2	-7.3	1.37 V	315	47.3	13.6
5	11440.00	64.1 PK	74.0	-9.9	1.85 V	331	40.1	24.0
6	11440.00	50.4 AV	54.0	-3.6	1.85 V	331	26.4	24.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 149 : 5745 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5645.20	61.3 PK	68.2	-6.9	1.32 H	354	48.6	12.7
2	*5745.00	122.6 PK			1.32 H	354	79.0	43.6
3	*5745.00	112.8 AV			1.32 H	354	69.2	43.6
4	#5959.60	61.3 PK	68.2	-6.9	1.32 H	354	47.5	13.8
5	11490.00	65.2 PK	74.0	-8.8	2.21 H	185	41.2	24.0
6	11490.00	51.2 AV	54.0	-2.8	2.21 H	185	27.2	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.60	61.8 PK	68.2	-6.4	1.46 V	1	49.1	12.7
2	*5745.00	123.1 PK			1.46 V	1	79.5	43.6
3	*5745.00	113.3 AV			1.46 V	1	69.7	43.6
4	#5999.60	62.0 PK	68.2	-6.2	1.46 V	1	48.3	13.7
5	11490.00	65.7 PK	74.0	-8.3	1.44 V	21	41.7	24.0
6	11490.00	51.8 AV	54.0	-2.2	1.44 V	21	27.8	24.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 157 : 5785 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5631.60	60.2 PK	68.2	-8.0	1.29 H	350	47.5	12.7
2	*5785.00	123.6 PK			1.29 H	350	79.8	43.8
3	*5785.00	113.8 AV			1.29 H	350	70.0	43.8
4	#5970.80	61.7 PK	68.2	-6.5	1.29 H	350	47.9	13.8
5	11570.00	63.6 PK	74.0	-10.4	2.21 H	189	39.8	23.8
6	11570.00	51.0 AV	54.0	-3.0	2.21 H	189	27.2	23.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5618.00	61.5 PK	68.2	-6.7	2.50 V	1	48.9	12.6
2	*5785.00	124.5 PK			2.50 V	1	80.7	43.8
3	*5785.00	114.2 AV			2.50 V	1	70.4	43.8
4	#5932.80	62.9 PK	68.2	-5.3	2.50 V	1	49.1	13.8
5	11570.00	63.8 PK	74.0	-10.2	1.65 V	210	40.0	23.8
6	11570.00	51.1 AV	54.0	-2.9	1.65 V	210	27.3	23.8

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	TX 802.11a	Channel	CH 165 : 5825 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.80	60.3 PK	68.2	-7.9	1.30 H	350	47.6	12.7
2	*5825.00	123.2 PK			1.30 H	350	79.2	44.0
3	*5825.00	112.6 AV			1.30 H	350	68.6	44.0
4	#5983.20	61.6 PK	68.2	-6.6	1.30 H	350	47.9	13.7
5	11650.00	63.5 PK	74.0	-10.5	2.25 H	187	40.2	23.3
6	11650.00	50.6 AV	54.0	-3.4	2.25 H	187	27.3	23.3
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	#5614.00	62.2 PK	68.2	-6.0	2.49 V	357	49.6	12.6
2	*5825.00	123.6 PK			2.49 V	357	79.6	44.0
3	*5825.00	112.8 AV			2.49 V	357	68.8	44.0
4	#5925.60	64.8 PK	68.2	-3.4	2.49 V	357	51.0	13.8
5	11650.00	64.0 PK	74.0	-10.0	1.30 V	110	40.7	23.3
6	11650.00	50.9 AV	54.0	-3.1	1.30 V	110	27.6	23.3

Remarks:

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

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	63.6 PK	74.0	-10.4	2.19 H	348	51.0	12.6
2	5150.00	50.9 AV	54.0	-3.1	2.19 H	348	38.3	12.6
3	*5180.00	121.2 PK			2.19 H	348	78.5	42.7
4	*5180.00	109.1 AV			2.19 H	348	66.4	42.7
5	#10360.00	63.0 PK	68.2	-5.2	1.92 H	175	40.5	22.5
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	66.6 PK	74.0	-7.4	1.67 V	331	54.0	12.6
2	5150.00	53.7 AV	54.0	-0.3	1.67 V	331	41.1	12.6
3	*5180.00	122.5 PK			1.67 V	331	79.8	42.7
4	*5180.00	110.9 AV			1.67 V	331	68.2	42.7
5	#10360.00	63.2 PK	68.2	-5.0	1.66 V	215	40.7	22.5

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 40 : 5200 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	69.0 PK	74.0	-5.0	2.08 H	346	56.4	12.6
2	5150.00	50.1 AV	54.0	-3.9	2.08 H	346	37.5	12.6
3	*5200.00	121.7 PK			2.08 H	346	79.2	42.5
4	*5200.00	110.2 AV			2.08 H	346	67.7	42.5
5	#10400.00	63.0 PK	68.2	-5.2	1.94 H	178	40.3	22.7
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	73.6 PK	74.0	-0.4	1.65 V	327	61.0	12.6
2	5150.00	53.8 AV	54.0	-0.2	1.65 V	327	41.2	12.6
3	*5200.00	123.0 PK			1.65 V	327	80.5	42.5
4	*5200.00	110.5 AV			1.65 V	327	68.0	42.5
5	#10400.00	63.5 PK	68.2	-4.7	2.16 V	139	40.8	22.7

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	TX 802.11ax (HE20)	Channel	CH 48 : 5240 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	*5240.00	122.4 PK			2.16 H	349	80.0	42.4
2	*5240.00	110.7 AV			2.16 H	349	68.3	42.4
3	5350.00	61.7 PK	74.0	-12.3	2.16 H	349	49.3	12.4
4	5350.00	48.0 AV	54.0	-6.0	2.16 H	349	35.6	12.4
5	#10480.00	62.8 PK	68.2	-5.4	1.98 H	178	40.2	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	124.9 PK			1.68 V	340	82.5	42.4
2	*5240.00	112.8 AV			1.68 V	340	70.4	42.4
3	5350.00	63.0 PK	74.0	-11.0	1.68 V	340	50.6	12.4
4	5350.00	48.5 AV	54.0	-5.5	1.68 V	340	36.1	12.4
5	#10480.00	63.0 PK	68.2	-5.2	1.33 V	163	40.4	22.6

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	TX 802.11ax (HE20)	Channel	CH 52 : 5260 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.6 PK	74.0	-13.4	1.32 H	76	48.0	12.6
2	5150.00	47.4 AV	54.0	-6.6	1.32 H	76	34.8	12.6
3	*5260.00	122.4 PK			1.32 H	76	80.0	42.4
4	*5260.00	110.4 AV			1.32 H	76	68.0	42.4
5	5350.00	67.4 PK	74.0	-6.6	1.32 H	76	55.0	12.4
6	5350.00	49.4 AV	54.0	-4.6	1.32 H	76	37.0	12.4
7	#10520.00	64.7 PK	68.2	-3.5	1.52 H	331	42.2	22.5
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	60.8 PK	74.0	-13.2	1.83 V	331	48.2	12.6
2	5150.00	47.7 AV	54.0	-6.3	1.83 V	331	35.1	12.6
3	*5260.00	123.1 PK			1.83 V	331	80.7	42.4
4	*5260.00	110.9 AV			1.83 V	331	68.5	42.4
5	5350.00	68.2 PK	74.0	-5.8	1.83 V	331	55.8	12.4
6	5350.00	49.7 AV	54.0	-4.3	1.83 V	331	37.3	12.4
7	#10520.00	63.3 PK	68.2	-4.9	1.92 V	332	40.8	22.5

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 60 : 5300 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	122.2 PK			1.32 H	76	79.8	42.4
2	*5300.00	110.2 AV			1.32 H	76	67.8	42.4
3	5350.00	70.8 PK	74.0	-3.2	1.32 H	76	58.4	12.4
4	5350.00	52.2 AV	54.0	-1.8	1.32 H	76	39.8	12.4
5	10600.00	64.5 PK	74.0	-9.5	1.52 H	338	41.8	22.7
6	10600.00	51.7 AV	54.0	-2.3	1.52 H	338	29.0	22.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	122.5 PK			1.78 V	356	80.1	42.4
2	*5300.00	110.4 AV			1.78 V	356	68.0	42.4
3	5350.00	72.1 PK	74.0	-1.9	1.78 V	356	59.7	12.4
4	5350.00	53.2 AV	54.0	-0.8	1.78 V	356	40.8	12.4
5	10600.00	63.3 PK	74.0	-10.7	1.92 V	332	40.6	22.7
6	10600.00	50.4 AV	54.0	-3.6	1.92 V	332	27.7	22.7

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	120.3 PK			1.34 H	76	77.8	42.5
2	*5320.00	107.7 AV			1.34 H	76	65.2	42.5
3	5350.00	66.0 PK	74.0	-8.0	1.34 H	76	53.6	12.4
4	5350.00	51.1 AV	54.0	-2.9	1.34 H	76	38.7	12.4
5	10640.00	64.3 PK	74.0	-9.7	1.59 H	331	41.5	22.8
6	10640.00	51.4 AV	54.0	-2.6	1.59 H	331	28.6	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	120.8 PK			1.79 V	12	78.3	42.5
2	*5320.00	108.2 AV			1.79 V	12	65.7	42.5
3	5350.00	68.8 PK	74.0	-5.2	1.79 V	12	56.4	12.4
4	5350.00	52.4 AV	54.0	-1.6	1.79 V	12	40.0	12.4
5	10640.00	63.4 PK	74.0	-10.6	1.91 V	332	40.6	22.8
6	10640.00	50.3 AV	54.0	-3.7	1.91 V	332	27.5	22.8

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.

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.7 PK	74.0	-13.3	2.18 H	350	48.0	12.7
2	5460.00	47.5 AV	54.0	-6.5	2.18 H	350	34.8	12.7
3	#5470.00	60.9 PK	68.2	-7.3	2.18 H	350	48.2	12.7
4	*5500.00	119.0 PK			2.18 H	350	75.8	43.2
5	*5500.00	106.3 AV			2.18 H	350	63.1	43.2
6	11000.00	63.4 PK	74.0	-10.6	1.56 H	331	40.5	22.9
7	11000.00	49.5 AV	54.0	-4.5	1.56 H	331	26.6	22.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.9 PK	74.0	-13.1	1.70 V	327	48.2	12.7
2	5460.00	47.9 AV	54.0	-6.1	1.70 V	327	35.2	12.7
3	#5470.00	61.7 PK	68.2	-6.5	1.70 V	327	49.0	12.7
4	*5500.00	119.6 PK			1.70 V	327	76.4	43.2
5	*5500.00	106.5 AV			1.70 V	327	63.3	43.2
6	11000.00	63.1 PK	74.0	-10.9	1.88 V	329	40.2	22.9
7	11000.00	49.3 AV	54.0	-4.7	1.88 V	329	26.4	22.9

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	TX 802.11ax (HE20)	Channel	CH 116 : 5580 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	117.7 PK			2.05 H	4	74.6	43.1
2	*5580.00	104.9 AV			2.05 H	4	61.8	43.1
3	11160.00	63.6 PK	74.0	-10.4	1.49 H	335	40.5	23.1
4	11160.00	49.6 AV	54.0	-4.4	1.49 H	335	26.5	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	118.8 PK			1.65 V	326	75.7	43.1
2	*5580.00	106.2 AV			1.65 V	326	63.1	43.1
3	11160.00	63.4 PK	74.0	-10.6	1.87 V	335	40.3	23.1
4	11160.00	49.3 AV	54.0	-4.7	1.87 V	335	26.2	23.1

Remarks:

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

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	116.6 PK			1.97 H	6	73.5	43.1
2	*5700.00	104.8 AV			1.97 H	6	61.7	43.1
3	#5725.00	61.8 PK	68.2	-6.4	1.97 H	6	48.6	13.2
4	11400.00	64.4 PK	74.0	-9.6	1.56 H	321	40.4	24.0
5	11400.00	50.5 AV	54.0	-3.5	1.56 H	321	26.5	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	117.8 PK			1.63 V	319	74.7	43.1
2	*5700.00	105.4 AV			1.63 V	319	62.3	43.1
3	#5725.00	62.6 PK	68.2	-5.6	1.63 V	319	49.4	13.2
4	11400.00	64.2 PK	74.0	-9.8	1.89 V	339	40.2	24.0
5	11400.00	50.3 AV	54.0	-3.7	1.89 V	339	26.3	24.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 144 : 5720 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.4 PK	68.2	-7.8	1.94 H	8	47.7	12.7
2	*5720.00	116.6 PK			1.94 H	8	73.2	43.4
3	*5720.00	105.2 AV			1.94 H	8	61.8	43.4
4	#5850.00	61.1 PK	68.2	-7.1	1.94 H	8	47.5	13.6
5	11440.00	64.3 PK	74.0	-9.7	1.58 H	323	40.3	24.0
6	11440.00	50.5 AV	54.0	-3.5	1.58 H	323	26.5	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.7 PK	68.2	-7.5	1.62 V	319	48.0	12.7
2	*5720.00	117.9 PK			1.62 V	319	74.5	43.4
3	*5720.00	105.8 AV			1.62 V	319	62.4	43.4
4	#5850.00	61.2 PK	68.2	-7.0	1.62 V	319	47.6	13.6
5	11440.00	64.1 PK	74.0	-9.9	1.95 V	332	40.1	24.0
6	11440.00	50.3 AV	54.0	-3.7	1.95 V	332	26.3	24.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.00	63.1 PK	68.2	-5.1	1.34 H	350	50.4	12.7
2	*5745.00	123.3 PK			1.34 H	350	79.7	43.6
3	*5745.00	111.1 AV			1.34 H	350	67.5	43.6
4	#5925.60	61.4 PK	68.2	-6.8	1.34 H	350	47.6	13.8
5	11490.00	64.5 PK	74.0	-9.5	2.09 H	189	40.5	24.0
6	11490.00	51.2 AV	54.0	-2.8	2.09 H	189	27.2	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5622.40	62.7 PK	68.2	-5.5	1.97 V	1	50.1	12.6
2	*5745.00	123.5 PK			1.97 V	1	79.9	43.6
3	*5745.00	111.4 AV			1.97 V	1	67.8	43.6
4	#5975.60	62.8 PK	68.2	-5.4	1.97 V	1	49.0	13.8
5	11490.00	64.9 PK	74.0	-9.1	1.35 V	320	40.9	24.0
6	11490.00	51.4 AV	54.0	-2.6	1.35 V	320	27.4	24.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5620.00	60.0 PK	68.2	-8.2	1.37 H	352	47.4	12.6
2	*5785.00	123.3 PK			1.37 H	352	79.5	43.8
3	*5785.00	111.5 AV			1.37 H	352	67.7	43.8
4	#5942.00	60.7 PK	68.2	-7.5	1.37 H	352	46.9	13.8
5	11570.00	64.3 PK	74.0	-9.7	2.21 H	195	40.5	23.8
6	11570.00	50.8 AV	54.0	-3.2	2.21 H	195	27.0	23.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.40	61.4 PK	68.2	-6.8	1.96 V	357	48.7	12.7
2	*5785.00	123.5 PK			1.96 V	357	79.7	43.8
3	*5785.00	111.8 AV			1.96 V	357	68.0	43.8
4	#5964.00	62.8 PK	68.2	-5.4	1.96 V	357	49.0	13.8
5	11570.00	64.8 PK	74.0	-9.2	3.13 V	133	41.0	23.8
6	11570.00	51.0 AV	54.0	-3.0	3.13 V	133	27.2	23.8

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	TX 802.11ax (HE20)	Channel	CH 165 : 5825 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5605.20	60.3 PK	68.2	-7.9	1.28 H	354	47.8	12.5
2	*5825.00	122.1 PK			1.28 H	354	78.1	44.0
3	*5825.00	111.7 AV			1.28 H	354	67.7	44.0
4	#5926.40	62.2 PK	68.2	-6.0	1.28 H	354	48.4	13.8
5	11650.00	63.8 PK	74.0	-10.2	2.08 H	187	40.5	23.3
6	11650.00	50.5 AV	54.0	-3.5	2.08 H	187	27.2	23.3
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	#5634.00	60.9 PK	68.2	-7.3	1.93 V	2	48.2	12.7
2	*5825.00	122.5 PK			1.93 V	2	78.5	44.0
3	*5825.00	112.0 AV			1.93 V	2	68.0	44.0
4	#5987.20	62.2 PK	68.2	-6.0	1.93 V	2	48.5	13.7
5	11650.00	64.2 PK	74.0	-9.8	1.31 V	108	40.9	23.3
6	11650.00	50.9 AV	54.0	-3.1	1.31 V	108	27.6	23.3

Remarks:

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

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.9 PK	74.0	-11.1	2.12 H	348	50.3	12.6
2	5150.00	50.7 AV	54.0	-3.3	2.12 H	348	38.1	12.6
3	*5190.00	115.3 PK			2.12 H	348	72.7	42.6
4	*5190.00	103.5 AV			2.12 H	348	60.9	42.6
5	#10380.00	62.1 PK	68.2	-6.1	1.91 H	178	39.6	22.5
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	66.2 PK	74.0	-7.8	1.66 V	328	53.6	12.6
2	5150.00	53.5 AV	54.0	-0.5	1.66 V	328	40.9	12.6
3	*5190.00	118.3 PK			1.66 V	328	75.7	42.6
4	*5190.00	105.7 AV			1.66 V	328	63.1	42.6
5	#10380.00	62.4 PK	68.2	-5.8	2.13 V	300	39.9	22.5

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	67.3 PK	74.0	-6.7	2.12 H	348	54.7	12.6
2	5150.00	50.1 AV	54.0	-3.9	2.12 H	348	37.5	12.6
3	*5230.00	118.2 PK			2.12 H	348	75.8	42.4
4	*5230.00	105.8 AV			2.12 H	348	63.4	42.4
5	5350.00	60.9 PK	74.0	-13.1	2.12 H	348	48.5	12.4
6	5350.00	48.0 AV	54.0	-6.0	2.12 H	348	35.6	12.4
7	#10460.00	62.3 PK	68.2	-5.9	1.95 H	181	39.7	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	71.9 PK	74.0	-2.1	1.89 V	332	59.3	12.6
2	5150.00	53.9 AV	54.0	-0.1	1.89 V	332	41.3	12.6
3	*5230.00	120.9 PK			1.89 V	332	78.5	42.4
4	*5230.00	108.0 AV			1.89 V	332	65.6	42.4
5	5350.00	63.8 PK	74.0	-10.2	1.89 V	332	51.4	12.4
6	5350.00	48.7 AV	54.0	-5.3	1.89 V	332	36.3	12.4
7	#10460.00	62.8 PK	68.2	-5.4	1.35 V	15	40.2	22.6

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	TX 802.11ax (HE40)	Channel	CH 54 : 5270 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	61.3 PK	74.0	-12.7	1.39 H	78	48.7	12.6
2	5150.00	47.4 AV	54.0	-6.6	1.39 H	78	34.8	12.6
3	*5270.00	119.0 PK			1.39 H	78	76.6	42.4
4	*5270.00	106.4 AV			1.39 H	78	64.0	42.4
5	5350.00	70.1 PK	74.0	-3.9	1.39 H	78	57.7	12.4
6	5350.00	52.9 AV	54.0	-1.1	1.39 H	78	40.5	12.4
7	#10540.00	64.1 PK	68.2	-4.1	1.62 H	336	41.5	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.6 PK	74.0	-12.4	1.83 V	11	49.0	12.6
2	5150.00	47.9 AV	54.0	-6.1	1.83 V	11	35.3	12.6
3	*5270.00	119.8 PK			1.83 V	11	77.4	42.4
4	*5270.00	106.8 AV			1.83 V	11	64.4	42.4
5	5350.00	71.0 PK	74.0	-3.0	1.83 V	11	58.6	12.4
6	5350.00	53.5 AV	54.0	-0.5	1.83 V	11	41.1	12.4
7	#10540.00	63.4 PK	68.2	-4.8	1.92 V	336	40.8	22.6

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	117.0 PK			1.44 H	78	74.5	42.5
2	*5310.00	104.5 AV			1.44 H	78	62.0	42.5
3	5350.00	65.8 PK	74.0	-8.2	1.44 H	78	53.4	12.4
4	5350.00	52.2 AV	54.0	-1.8	1.44 H	78	39.8	12.4
5	10620.00	63.9 PK	74.0	-10.1	1.58 H	332	41.2	22.7
6	10620.00	51.0 AV	54.0	-3.0	1.58 H	332	28.3	22.7
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	117.2 PK			1.80 V	10	74.7	42.5
2	*5310.00	104.9 AV			1.80 V	10	62.4	42.5
3	5350.00	67.7 PK	74.0	-6.3	1.80 V	10	55.3	12.4
4	5350.00	53.6 AV	54.0	-0.4	1.80 V	10	41.2	12.4
5	10620.00	63.2 PK	74.0	-10.8	1.93 V	332	40.5	22.7
6	10620.00	49.9 AV	54.0	-4.1	1.93 V	332	27.2	22.7

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	5460.00	60.5 PK	74.0	-13.5	1.81 H	344	47.8	12.7
2	5460.00	47.2 AV	54.0	-6.8	1.81 H	344	34.5	12.7
3	#5470.00	61.5 PK	68.2	-6.7	1.81 H	344	48.8	12.7
4	*5510.00	116.3 PK			1.81 H	344	73.1	43.2
5	*5510.00	103.6 AV			1.81 H	344	60.4	43.2
6	11020.00	62.9 PK	74.0	-11.1	1.56 H	334	40.1	22.8
7	11020.00	49.2 AV	54.0	-4.8	1.56 H	334	26.4	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	5460.00	60.7 PK	74.0	-13.3	1.67 V	326	48.0	12.7
2	5460.00	47.5 AV	54.0	-6.5	1.67 V	326	34.8	12.7
3	#5470.00	61.8 PK	68.2	-6.4	1.67 V	326	49.1	12.7
4	*5510.00	117.1 PK			1.67 V	326	73.9	43.2
5	*5510.00	104.4 AV			1.67 V	326	61.2	43.2
6	11020.00	62.6 PK	74.0	-11.4	1.95 V	337	39.8	22.8
7	11020.00	49.0 AV	54.0	-5.0	1.95 V	337	26.2	22.8

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	TX 802.11ax (HE40)	Channel	CH 110 : 5550 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	116.9 PK			1.82 H	15	73.7	43.2
2	*5550.00	104.0 AV			1.82 H	15	60.8	43.2
3	11100.00	63.1 PK	74.0	-10.9	1.49 H	332	40.2	22.9
4	11100.00	49.4 AV	54.0	-4.6	1.49 H	332	26.5	22.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	117.2 PK			1.70 V	328	74.0	43.2
2	*5550.00	104.5 AV			1.70 V	328	61.3	43.2
3	11100.00	62.8 PK	74.0	-11.2	1.92 V	338	39.9	22.9
4	11100.00	49.2 AV	54.0	-4.8	1.92 V	338	26.3	22.9

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.

RF Mode	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	114.2 PK			1.84 H	6	71.1	43.1
2	*5670.00	102.9 AV			1.84 H	6	59.8	43.1
3	#5725.00	60.8 PK	68.2	-7.4	1.84 H	6	47.6	13.2
4	11340.00	63.4 PK	74.0	-10.6	1.47 H	321	39.7	23.7
5	11340.00	50.1 AV	54.0	-3.9	1.47 H	321	26.4	23.7
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	115.9 PK			1.61 V	318	72.8	43.1
2	*5670.00	103.2 AV			1.61 V	318	60.1	43.1
3	#5725.00	61.4 PK	68.2	-6.8	1.61 V	318	48.2	13.2
4	11340.00	63.2 PK	74.0	-10.8	1.91 V	335	39.5	23.7
5	11340.00	49.9 AV	54.0	-4.1	1.91 V	335	26.2	23.7

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	TX 802.11ax (HE40)	Channel	CH 142 : 5710 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.2 PK	68.2	-8.0	1.81 H	332	47.5	12.7
2	*5710.00	115.3 PK			1.81 H	332	72.1	43.2
3	*5710.00	103.1 AV			1.81 H	332	59.9	43.2
4	#5850.00	61.4 PK	68.2	-6.8	1.81 H	332	47.8	13.6
5	11420.00	64.1 PK	74.0	-9.9	1.47 H	336	40.0	24.1
6	11420.00	50.4 AV	54.0	-3.6	1.47 H	336	26.3	24.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.5 PK	68.2	-7.7	1.64 V	318	47.8	12.7
2	*5710.00	116.0 PK			1.64 V	318	72.8	43.2
3	*5710.00	103.4 AV			1.64 V	318	60.2	43.2
4	#5850.00	61.7 PK	68.2	-6.5	1.64 V	318	48.1	13.6
5	11420.00	63.9 PK	74.0	-10.1	1.89 V	339	39.8	24.1
6	11420.00	50.2 AV	54.0	-3.8	1.89 V	339	26.1	24.1

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 151 : 5755 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5646.00	67.9 PK	68.2	-0.3	1.23 H	349	55.2	12.7
2	*5755.00	122.1 PK			1.23 H	349	78.5	43.6
3	*5755.00	111.4 AV			1.23 H	349	67.8	43.6
4	#5995.60	61.4 PK	68.2	-6.8	1.23 H	349	47.7	13.7
5	11510.00	64.4 PK	74.0	-9.6	2.15 H	192	40.5	23.9
6	11510.00	50.9 AV	54.0	-3.1	2.15 H	192	27.0	23.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.00	68.1 PK	68.2	-0.1	1.46 V	6	55.4	12.7
2	*5755.00	122.5 PK			1.46 V	6	78.9	43.6
3	*5755.00	111.7 AV			1.46 V	6	68.1	43.6
4	#5948.00	63.6 PK	68.2	-4.6	1.46 V	6	49.8	13.8
5	11510.00	64.8 PK	74.0	-9.2	1.51 V	102	40.9	23.9
6	11510.00	51.2 AV	54.0	-2.8	1.51 V	102	27.3	23.9

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5645.60	62.6 PK	68.2	-5.6	1.23 H	350	49.9	12.7
2	*5795.00	122.3 PK			1.23 H	350	78.4	43.9
3	*5795.00	109.9 AV			1.23 H	350	66.0	43.9
4	#5931.20	67.2 PK	68.2	-1.0	1.23 H	350	53.4	13.8
5	11590.00	63.9 PK	74.0	-10.1	2.08 H	185	40.1	23.8
6	11590.00	50.7 AV	54.0	-3.3	2.08 H	185	26.9	23.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5629.60	65.2 PK	68.2	-3.0	1.46 V	5	52.5	12.7
2	*5795.00	122.5 PK			1.46 V	5	78.6	43.9
3	*5795.00	110.3 AV			1.46 V	5	66.4	43.9
4	#5928.80	67.6 PK	68.2	-0.6	1.46 V	5	53.8	13.8
5	11590.00	64.1 PK	74.0	-9.9	1.11 V	308	40.3	23.8
6	11590.00	50.8 AV	54.0	-3.2	1.11 V	308	27.0	23.8

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	65.6 PK	74.0	-8.4	1.98 H	179	53.0	12.6
2	5150.00	53.3 AV	54.0	-0.7	1.98 H	179	40.7	12.6
3	*5210.00	111.0 PK			1.98 H	179	68.5	42.5
4	*5210.00	96.1 AV			1.98 H	179	53.6	42.5
5	5350.00	60.6 PK	74.0	-13.4	1.98 H	179	48.2	12.4
6	5350.00	47.4 AV	54.0	-6.6	1.98 H	179	35.0	12.4
7	#10420.00	62.3 PK	68.2	-5.9	1.98 H	179	39.7	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.9 PK	74.0	-8.1	1.64 V	332	53.3	12.6
2	5150.00	53.5 AV	54.0	-0.5	1.64 V	332	40.9	12.6
3	*5210.00	112.8 PK			1.64 V	332	70.3	42.5
4	*5210.00	97.5 AV			1.64 V	332	55.0	42.5
5	5350.00	61.3 PK	74.0	-12.7	1.64 V	332	48.9	12.4
6	5350.00	48.3 AV	54.0	-5.7	1.64 V	332	35.9	12.4
7	#10420.00	62.6 PK	68.2	-5.6	1.33 V	163	40.0	22.6

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.1 PK	74.0	-13.9	1.39 H	77	47.5	12.6
2	5150.00	47.1 AV	54.0	-6.9	1.39 H	77	34.5	12.6
3	*5290.00	112.7 PK			1.39 H	77	70.3	42.4
4	*5290.00	100.4 AV			1.39 H	77	58.0	42.4
5	5350.00	67.3 PK	74.0	-6.7	1.39 H	77	54.9	12.4
6	5350.00	53.6 AV	54.0	-0.4	1.39 H	77	41.2	12.4
7	#10580.00	63.3 PK	68.2	-4.9	1.49 H	338	40.5	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.5 PK	74.0	-13.5	1.83 V	12	47.9	12.6
2	5150.00	47.4 AV	54.0	-6.6	1.83 V	12	34.8	12.6
3	*5290.00	113.4 PK			1.83 V	12	71.0	42.4
4	*5290.00	100.8 AV			1.83 V	12	58.4	42.4
5	5350.00	68.1 PK	74.0	-5.9	1.83 V	12	55.7	12.4
6	5350.00	53.8 AV	54.0	-0.2	1.83 V	12	41.4	12.4
7	#10580.00	63.0 PK	68.2	-5.2	1.96 V	331	40.2	22.8

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	TX 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	63.2 PK	74.0	-10.8	1.75 H	10	50.5	12.7
2	5460.00	50.5 AV	54.0	-3.5	1.75 H	10	37.8	12.7
3	#5470.00	64.5 PK	68.2	-3.7	1.75 H	10	51.8	12.7
4	*5530.00	113.5 PK			1.75 H	10	70.3	43.2
5	*5530.00	100.8 AV			1.75 H	10	57.6	43.2
6	#5725.00	60.2 PK	68.2	-8.0	1.75 H	10	47.0	13.2
7	11060.00	62.5 PK	74.0	-11.5	1.47 H	332	39.7	22.8
8	11060.00	48.8 AV	54.0	-5.2	1.47 H	332	26.0	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	64.4 PK	74.0	-9.6	1.65 V	325	51.7	12.7
2	5460.00	52.3 AV	54.0	-1.7	1.65 V	325	39.6	12.7
3	#5470.00	66.2 PK	68.2	-2.0	1.65 V	325	53.5	12.7
4	*5530.00	114.1 PK			1.65 V	325	70.9	43.2
5	*5530.00	101.6 AV			1.65 V	325	58.4	43.2
6	#5725.00	61.0 PK	68.2	-7.2	1.65 V	325	47.8	13.2
7	11060.00	62.3 PK	74.0	-11.7	1.85 V	332	39.5	22.8
8	11060.00	48.6 AV	54.0	-5.4	1.85 V	332	25.8	22.8

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	TX 802.11ax (HE80)	Channel	CH 122 : 5610 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.0 PK	74.0	-14.0	1.59 H	355	47.3	12.7
2	5460.00	46.9 AV	54.0	-7.1	1.59 H	355	34.2	12.7
3	#5470.00	60.5 PK	68.2	-7.7	1.59 H	355	47.8	12.7
4	*5610.00	112.7 PK			1.59 H	355	69.6	43.1
5	*5610.00	99.7 AV			1.59 H	355	56.6	43.1
6	#5725.00	64.2 PK	68.2	-4.0	1.59 H	355	51.0	13.2
7	11220.00	63.1 PK	74.0	-10.9	1.56 H	325	39.7	23.4
8	11220.00	49.3 AV	54.0	-4.7	1.56 H	325	25.9	23.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.2 PK	74.0	-13.8	1.65 V	328	47.5	12.7
2	5460.00	47.3 AV	54.0	-6.7	1.65 V	328	34.6	12.7
3	#5470.00	60.7 PK	68.2	-7.5	1.65 V	327	48.0	12.7
4	*5610.00	113.3 PK			1.65 V	327	70.2	43.1
5	*5610.00	100.9 AV			1.65 V	327	57.8	43.1
6	#5725.00	64.3 PK	68.2	-3.9	1.65 V	327	51.1	13.2
7	11220.00	62.9 PK	74.0	-11.1	1.84 V	331	39.5	23.4
8	11220.00	49.1 AV	54.0	-4.9	1.84 V	331	25.7	23.4

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 138 : 5690 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	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	60.2 PK	68.2	-8.0	1.55 H	345	47.5	12.7
2	*5690.00	111.8 PK			1.55 H	345	68.7	43.1
3	*5690.00	99.5 AV			1.55 H	345	56.4	43.1
4	#5850.00	60.6 PK	68.2	-7.6	1.55 H	345	47.0	13.6
5	11380.00	63.8 PK	74.0	-10.2	1.48 H	322	39.8	24.0
6	11380.00	50.1 AV	54.0	-3.9	1.48 H	322	26.1	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	60.4 PK	68.2	-7.8	1.64 V	319	47.7	12.7
2	*5690.00	113.4 PK			1.64 V	319	70.3	43.1
3	*5690.00	100.1 AV			1.64 V	319	57.0	43.1
4	#5850.00	60.7 PK	68.2	-7.5	1.64 V	319	47.1	13.6
5	11380.00	63.6 PK	74.0	-10.4	1.88 V	331	39.6	24.0
6	11380.00	49.9 AV	54.0	-4.1	1.88 V	331	25.9	24.0

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 155 : 5775 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu		

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	#5648.40	67.6 PK	68.2	-0.6	1.25 H	353	54.9	12.7
2	*5775.00	116.4 PK			1.25 H	353	72.6	43.8
3	*5775.00	104.2 AV			1.25 H	353	60.4	43.8
4	#5934.40	65.5 PK	68.2	-2.7	1.25 H	353	51.7	13.8
5	11550.00	64.1 PK	74.0	-9.9	2.21 H	196	40.2	23.9
6	11550.00	50.9 AV	54.0	-3.1	2.21 H	196	27.0	23.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.80	67.9 PK	68.2	-0.3	2.36 V	7	55.2	12.7
2	*5775.00	116.9 PK			2.36 V	7	73.1	43.8
3	*5775.00	104.5 AV			2.36 V	7	60.7	43.8
4	#5934.40	66.5 PK	68.2	-1.7	1.00 V	7	52.7	13.8
5	11550.00	64.4 PK	74.0	-9.6	1.31 V	20	40.5	23.9
6	11550.00	51.2 AV	54.0	-2.8	1.31 V	20	27.3	23.9

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.

RF Mode	TX 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 = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

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	64.3 PK	74.0	-9.7	1.55 H	21	51.7	12.6
2	5150.00	51.7 AV	54.0	-2.3	1.55 H	21	39.1	12.6
3	*5250.00	108.2 PK			1.55 H	21	65.8	42.4
4	*5250.00	96.2 AV			1.55 H	21	53.8	42.4
5	5350.00	64.8 PK	74.0	-9.2	1.55 H	21	52.4	12.4
6	5350.00	52.3 AV	54.0	-1.7	1.55 H	21	39.9	12.4
7	#10500.00	62.0 PK	68.2	-6.2	1.55 H	322	39.4	22.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	68.0 PK	74.0	-6.0	1.55 V	333	55.4	12.6
2	5150.00	53.3 AV	54.0	-0.7	1.55 V	333	40.7	12.6
3	*5250.00	109.2 PK			1.55 V	333	66.8	42.4
4	*5250.00	97.0 AV			1.55 V	333	54.6	42.4
5	5350.00	67.1 PK	74.0	-6.9	1.55 V	333	54.7	12.4
6	5350.00	53.7 AV	54.0	-0.3	1.55 V	333	41.3	12.4
7	#10500.00	61.8 PK	68.2	-6.4	1.95 V	316	39.2	22.6

Remarks:

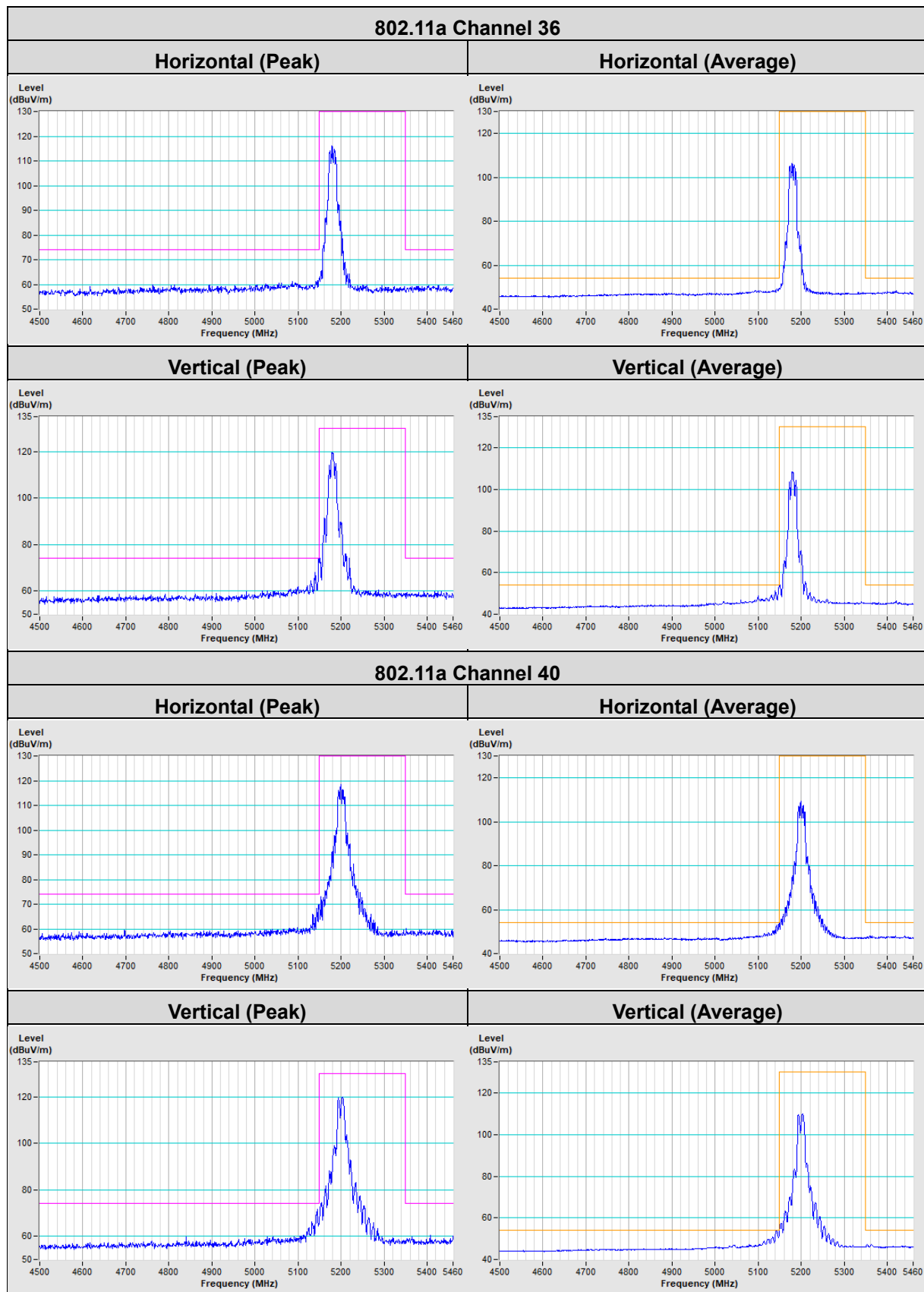
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

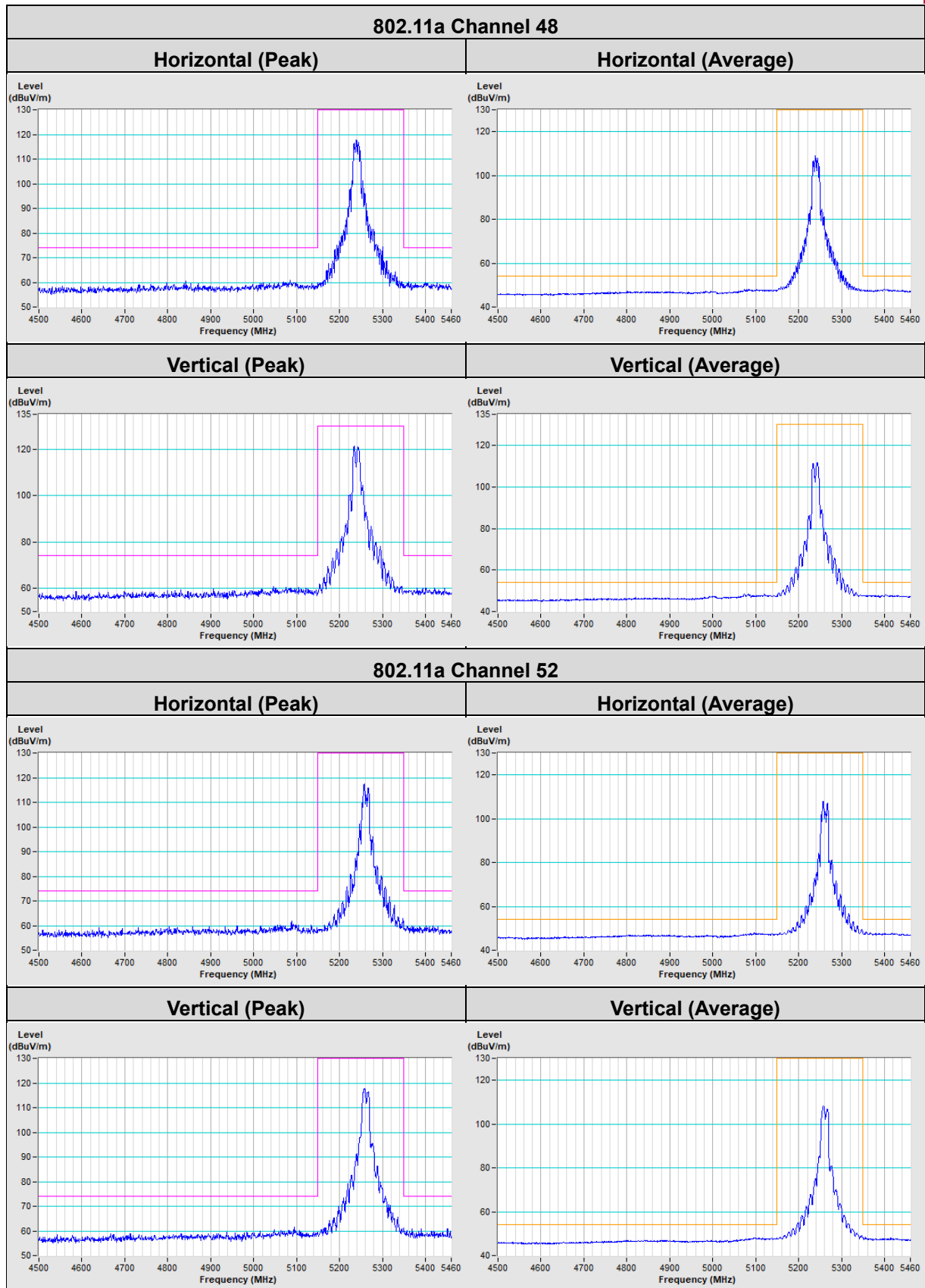
RF Mode	TX 802.11ax (HE160)	Channel	CH 114 : 5570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Titan Hsu		

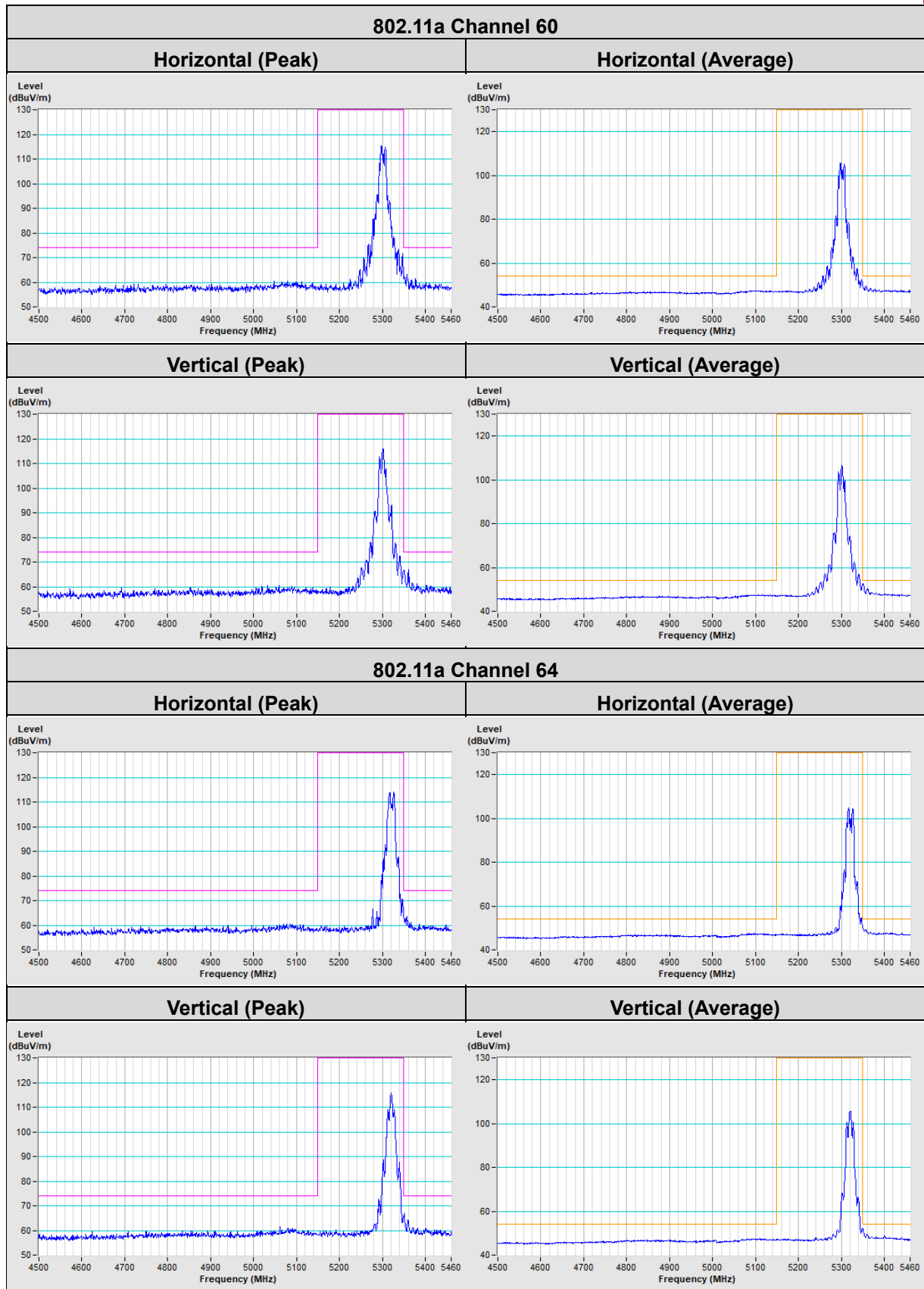
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.4 PK	74.0	-8.6	1.54 H	316	52.7	12.7
2	5460.00	51.9 AV	54.0	-2.1	1.54 H	316	39.2	12.7
3	#5470.00	65.1 PK	68.2	-3.1	1.54 H	316	52.4	12.7
4	*5570.00	108.9 PK			1.54 H	316	65.7	43.2
5	*5570.00	96.9 AV			1.54 H	316	53.7	43.2
6	#5725.00	65.0 PK	68.2	-3.2	1.54 H	316	51.8	13.2
7	11140.00	62.7 PK	74.0	-11.3	1.56 H	332	39.6	23.1
8	11140.00	48.9 AV	54.0	-5.1	1.56 H	332	25.8	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	66.3 PK	74.0	-7.7	1.65 V	350	53.6	12.7
2	5460.00	53.1 AV	54.0	-0.9	1.65 V	350	40.4	12.7
3	#5470.00	67.7 PK	68.2	-0.5	1.65 V	350	55.0	12.7
4	*5570.00	109.2 PK			1.65 V	350	66.0	43.2
5	*5570.00	97.1 AV			1.65 V	350	53.9	43.2
6	#5725.00	65.2 PK	68.2	-3.0	1.65 V	350	52.0	13.2
7	11140.00	62.4 PK	74.0	-11.6	1.88 V	325	39.3	23.1
8	11140.00	48.7 AV	54.0	-5.3	1.88 V	325	25.6	23.1

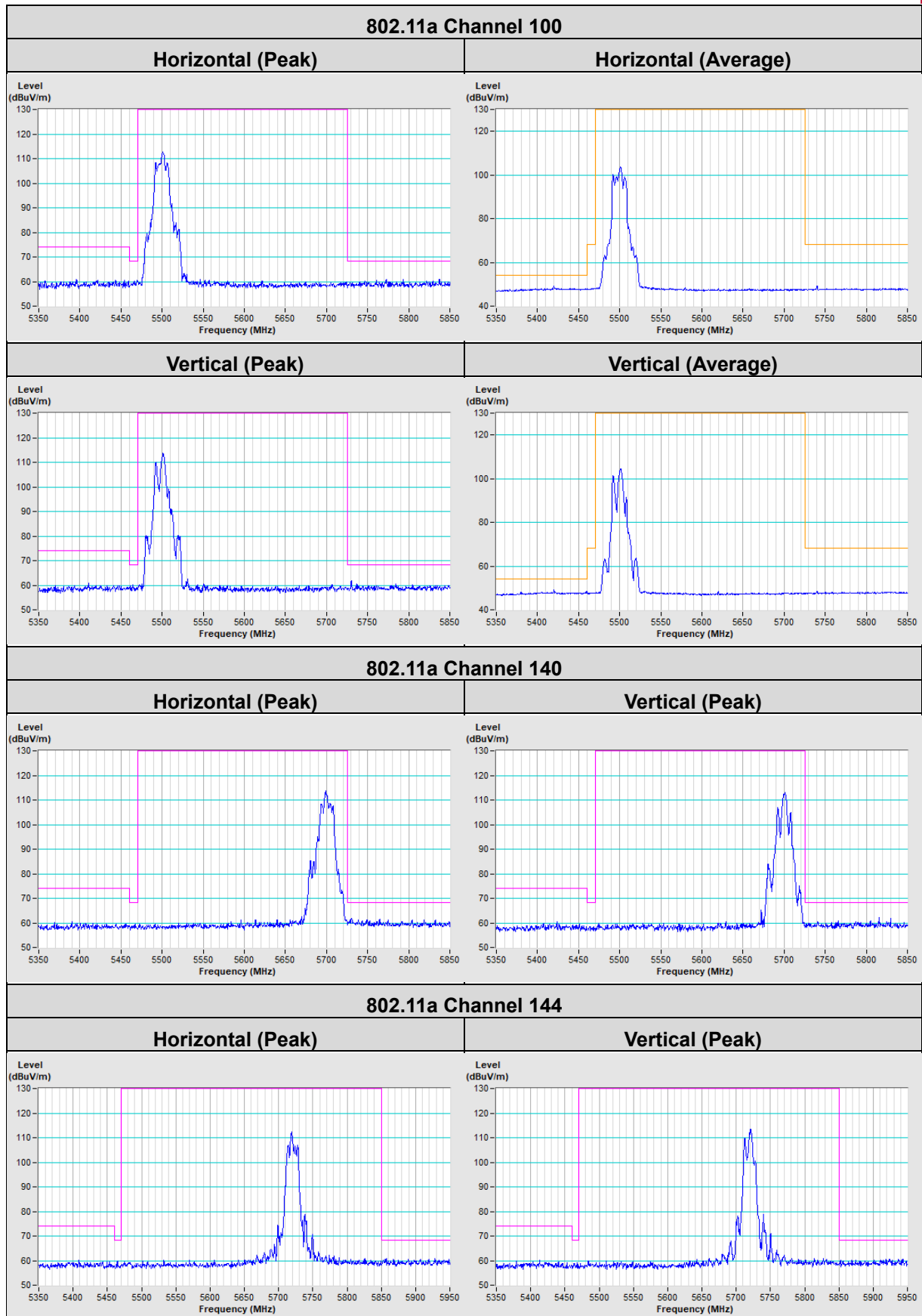
Remarks:

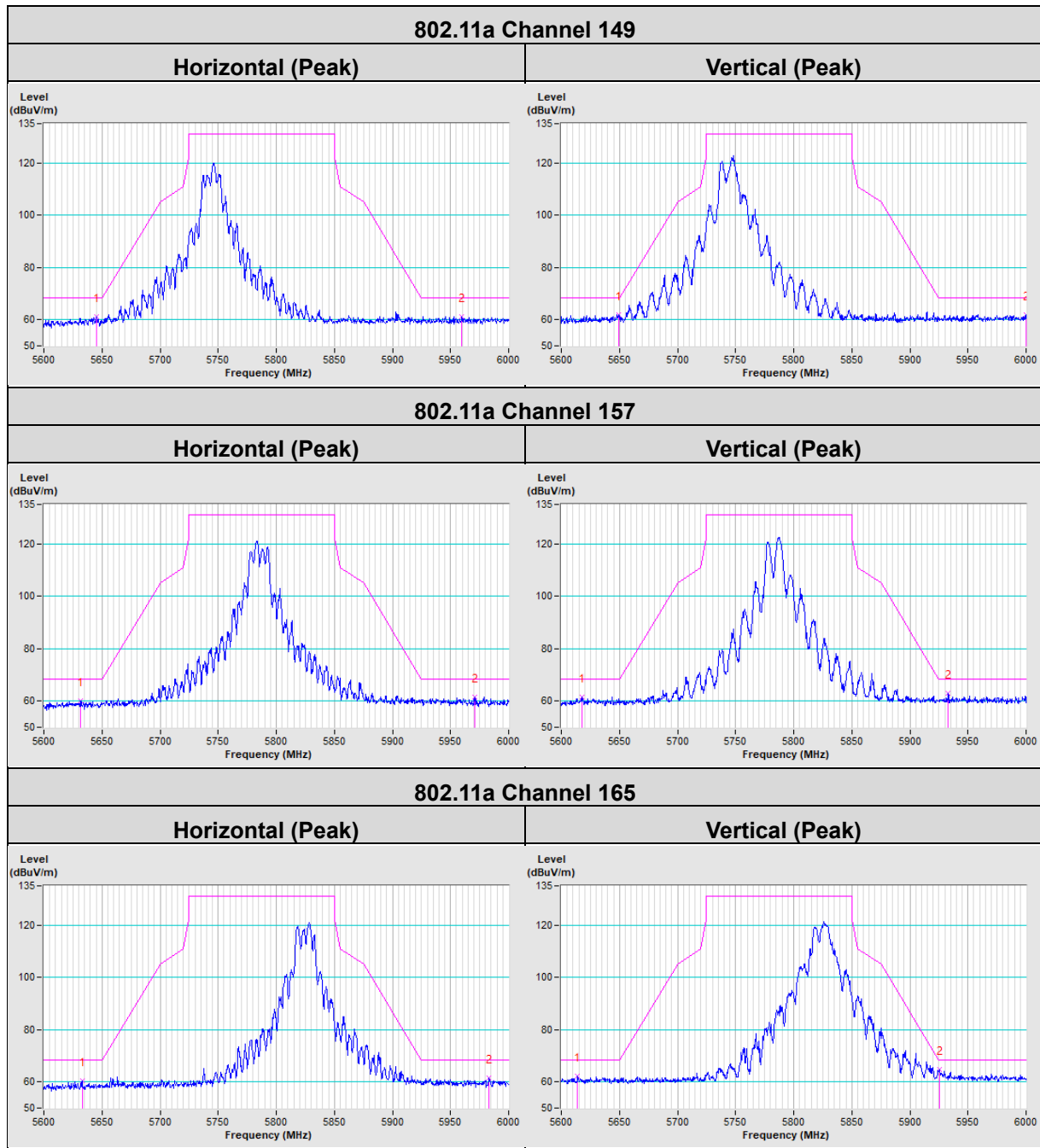
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

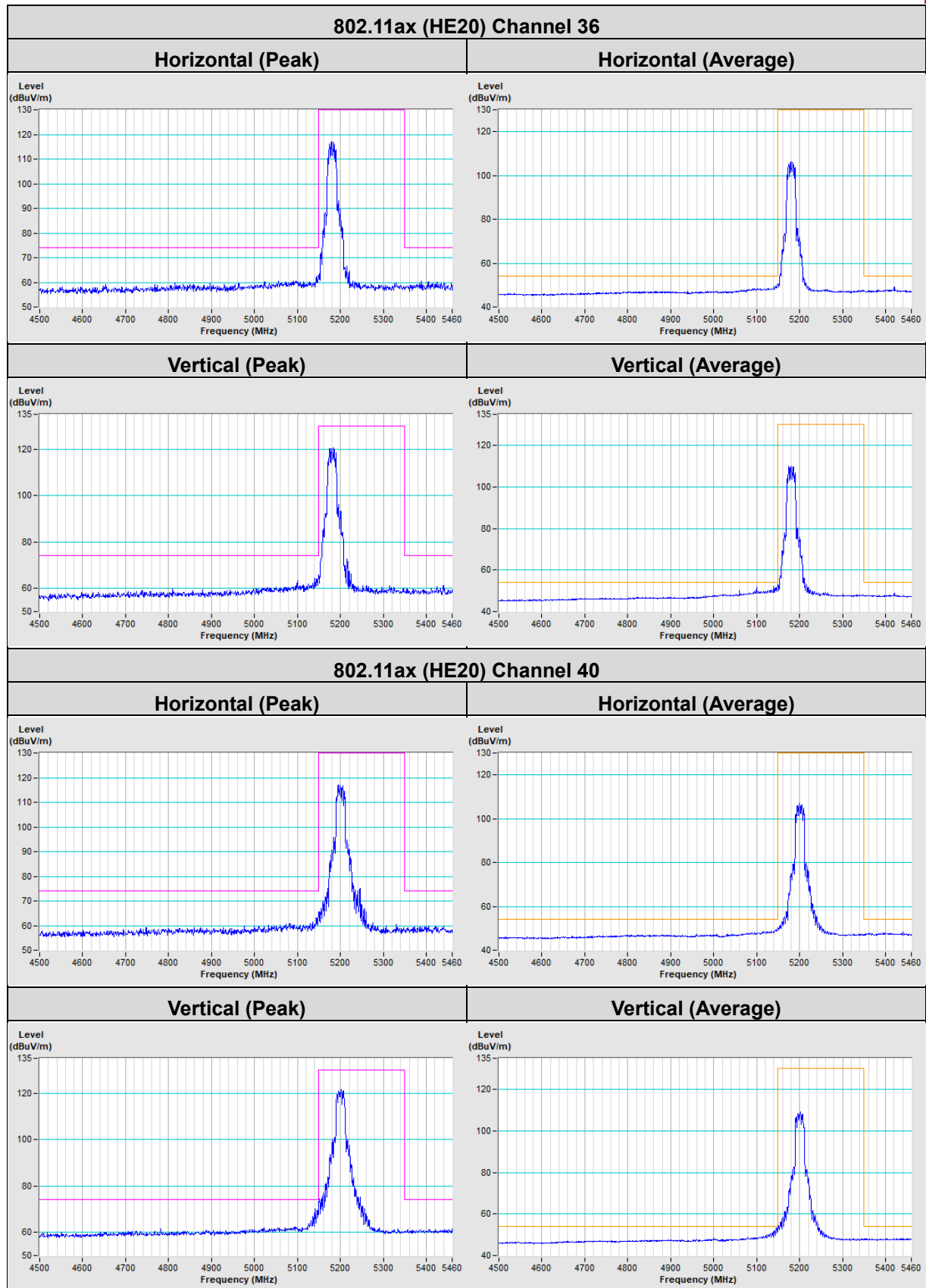


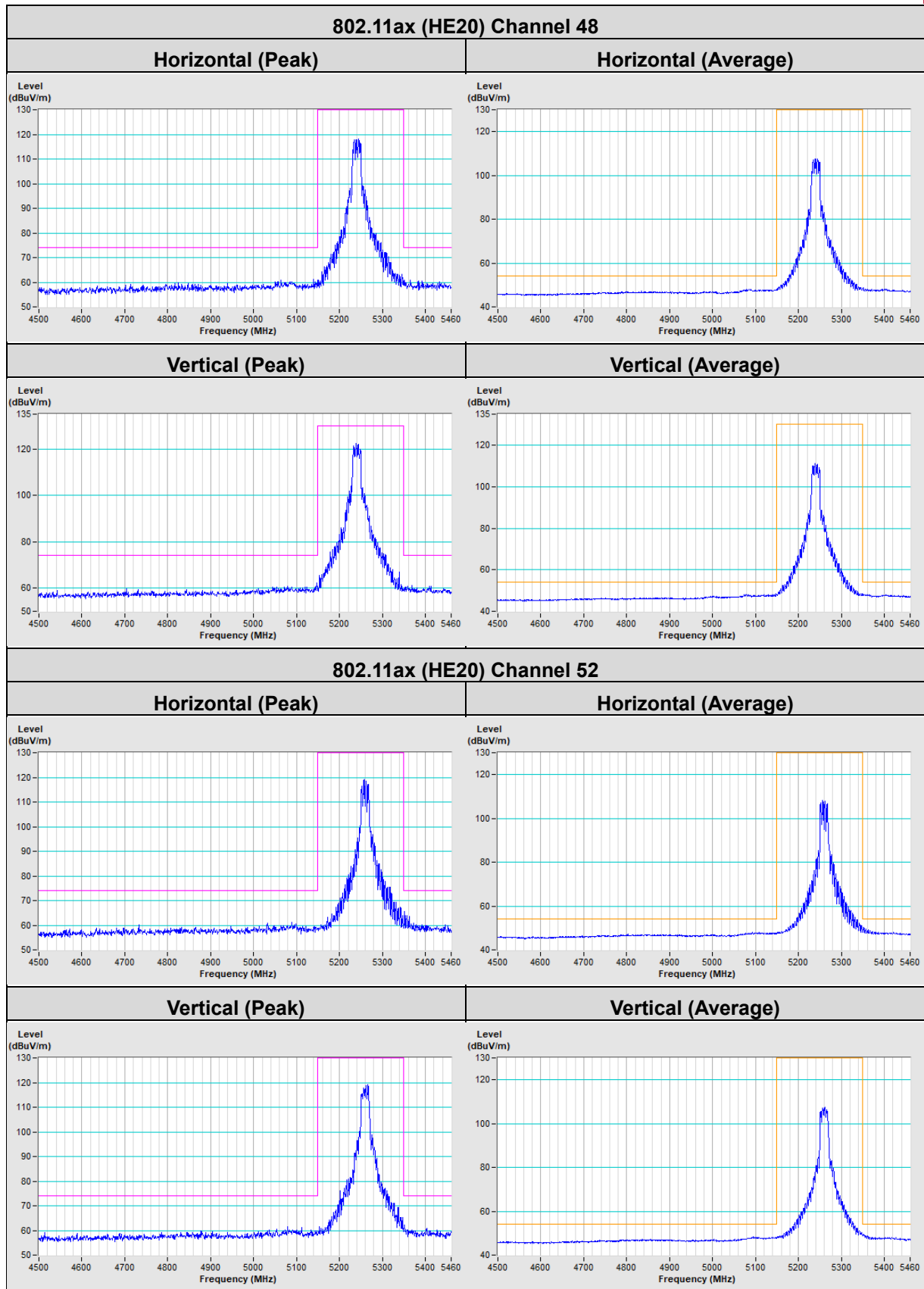


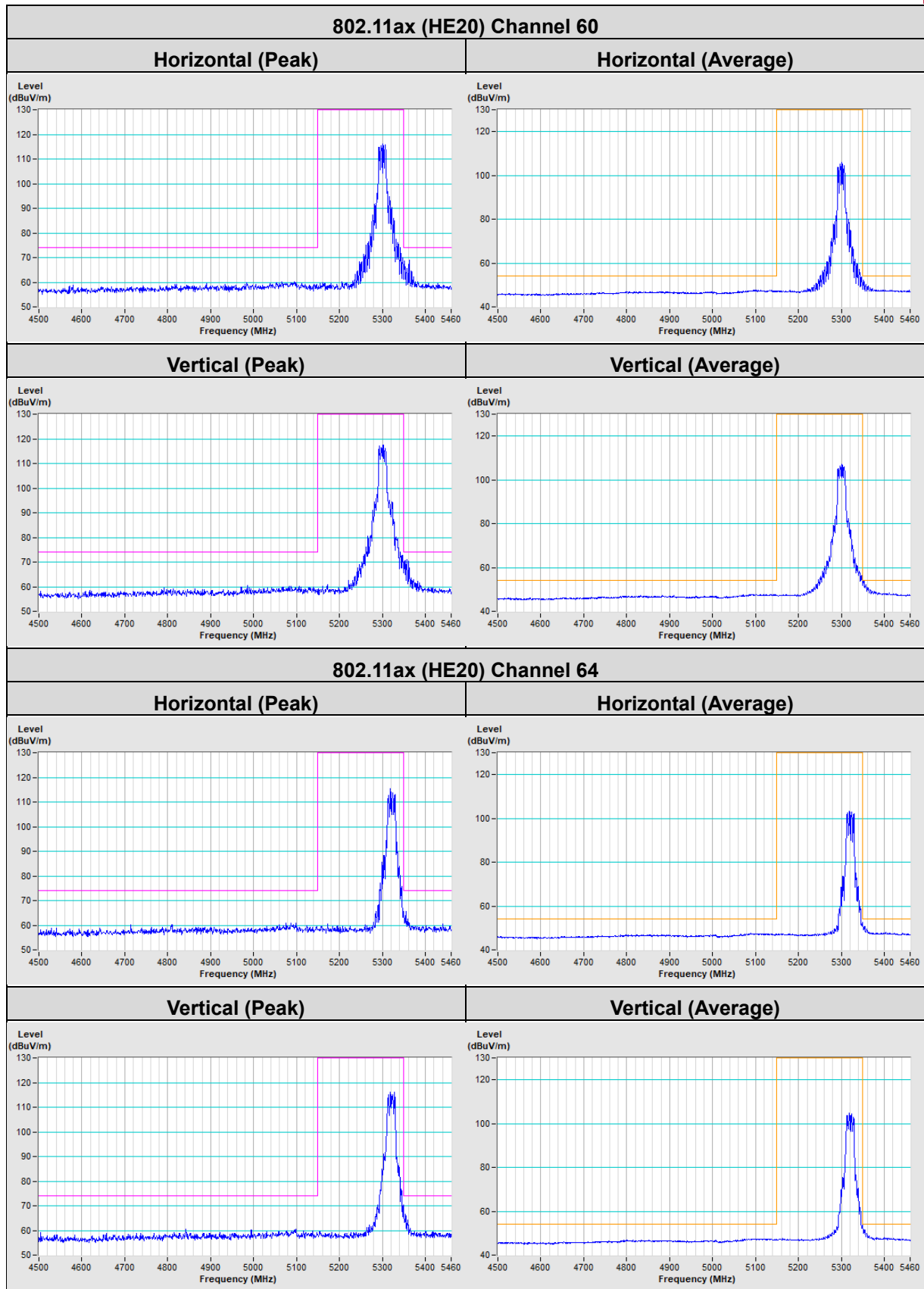


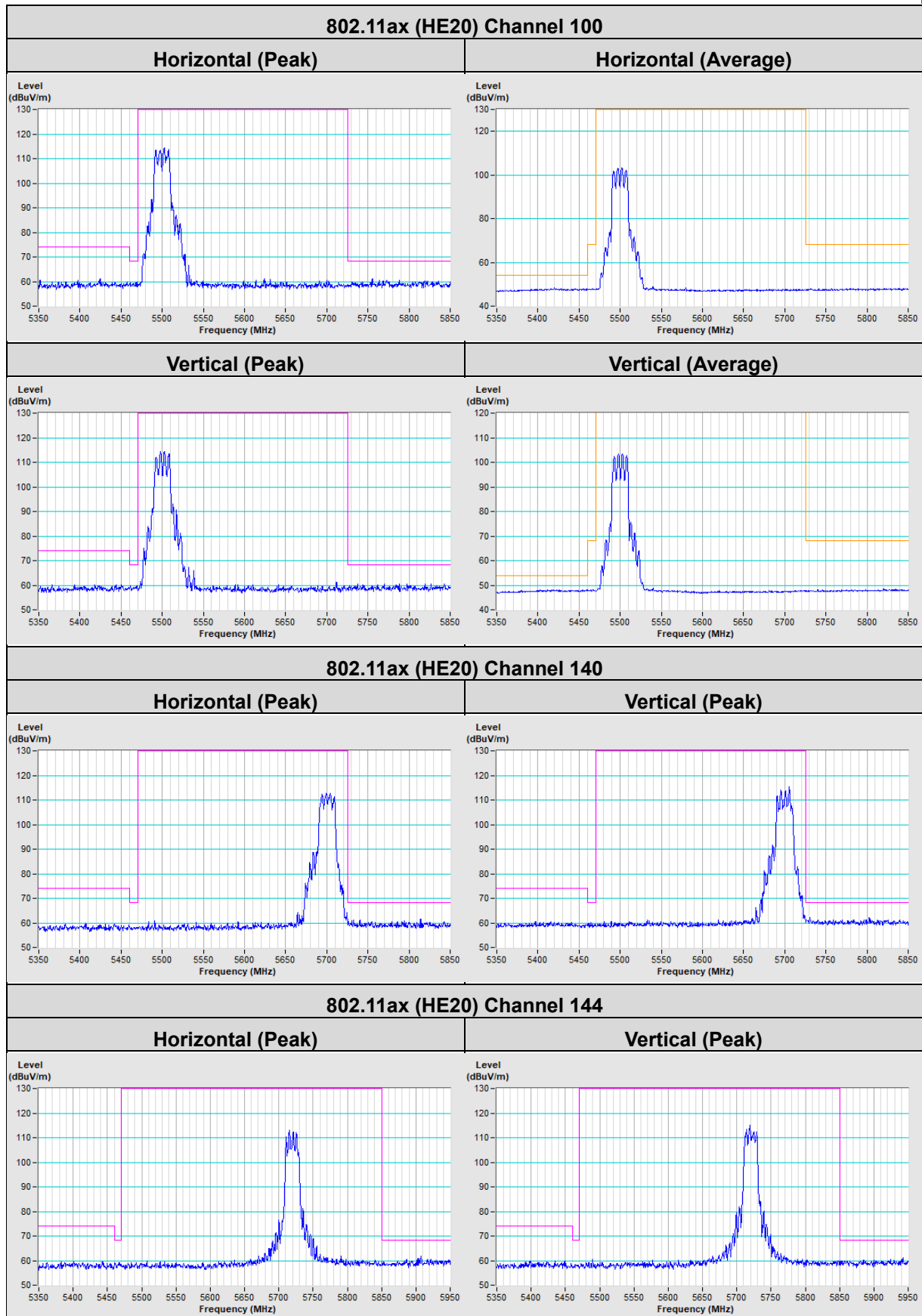


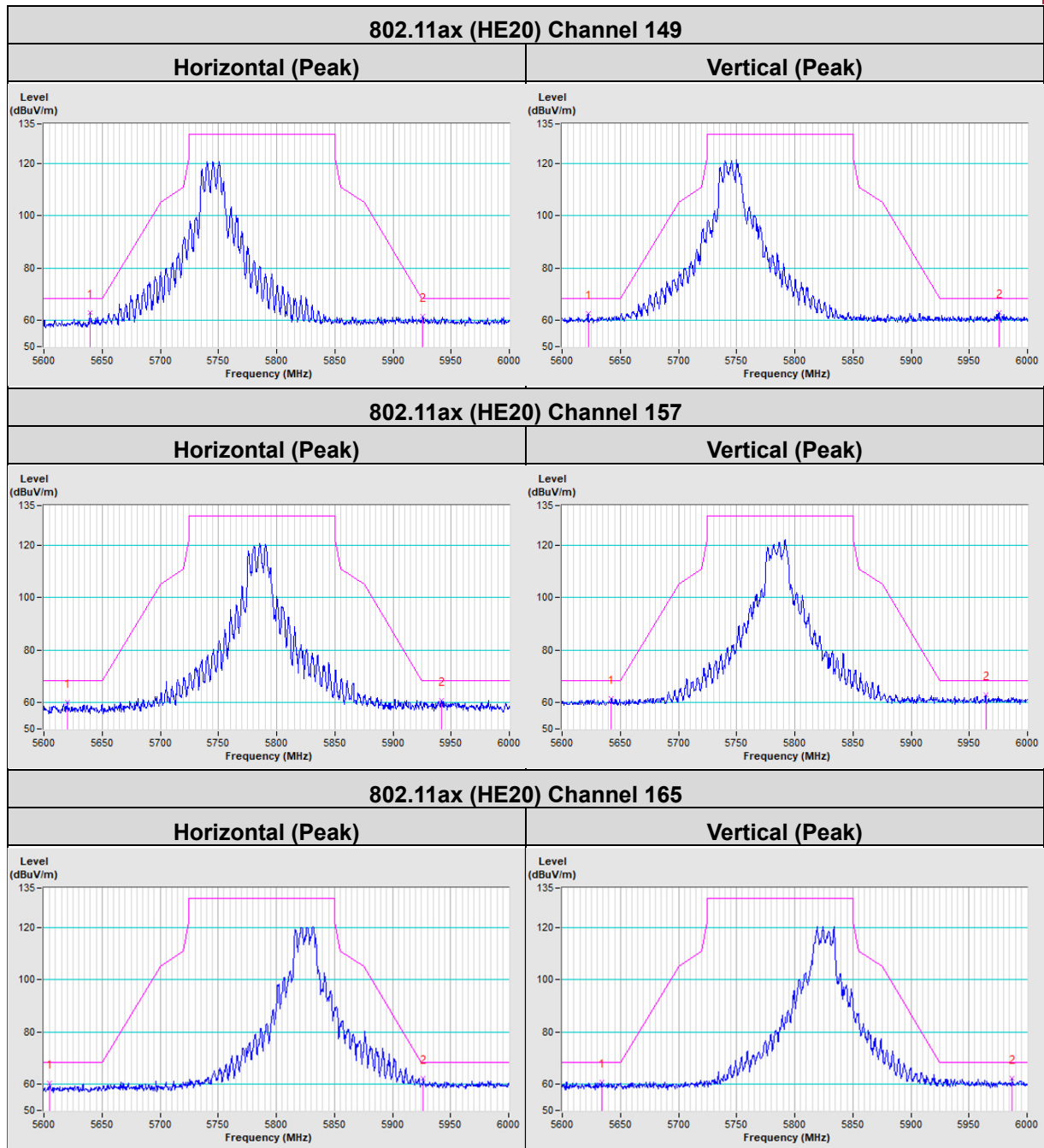


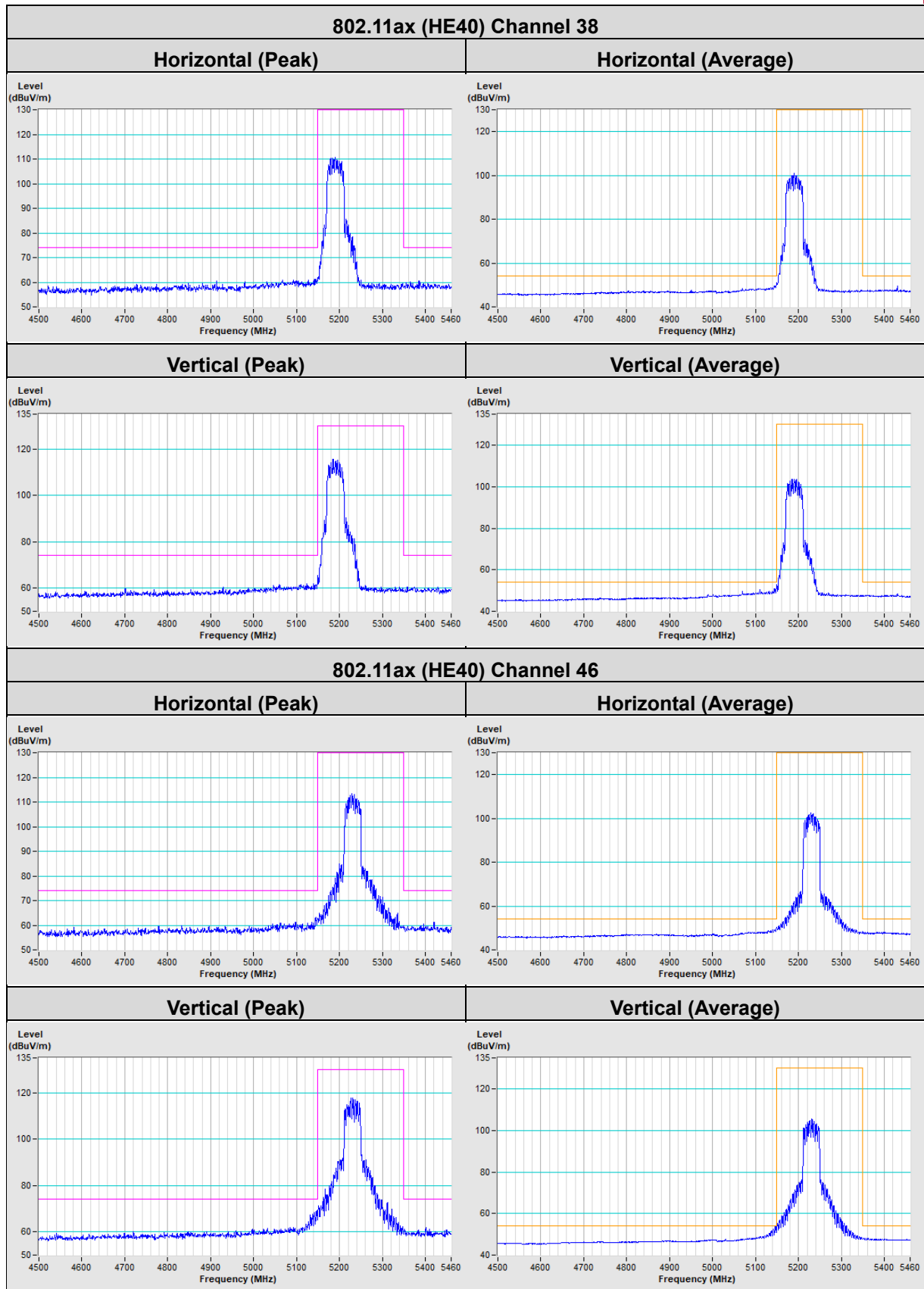


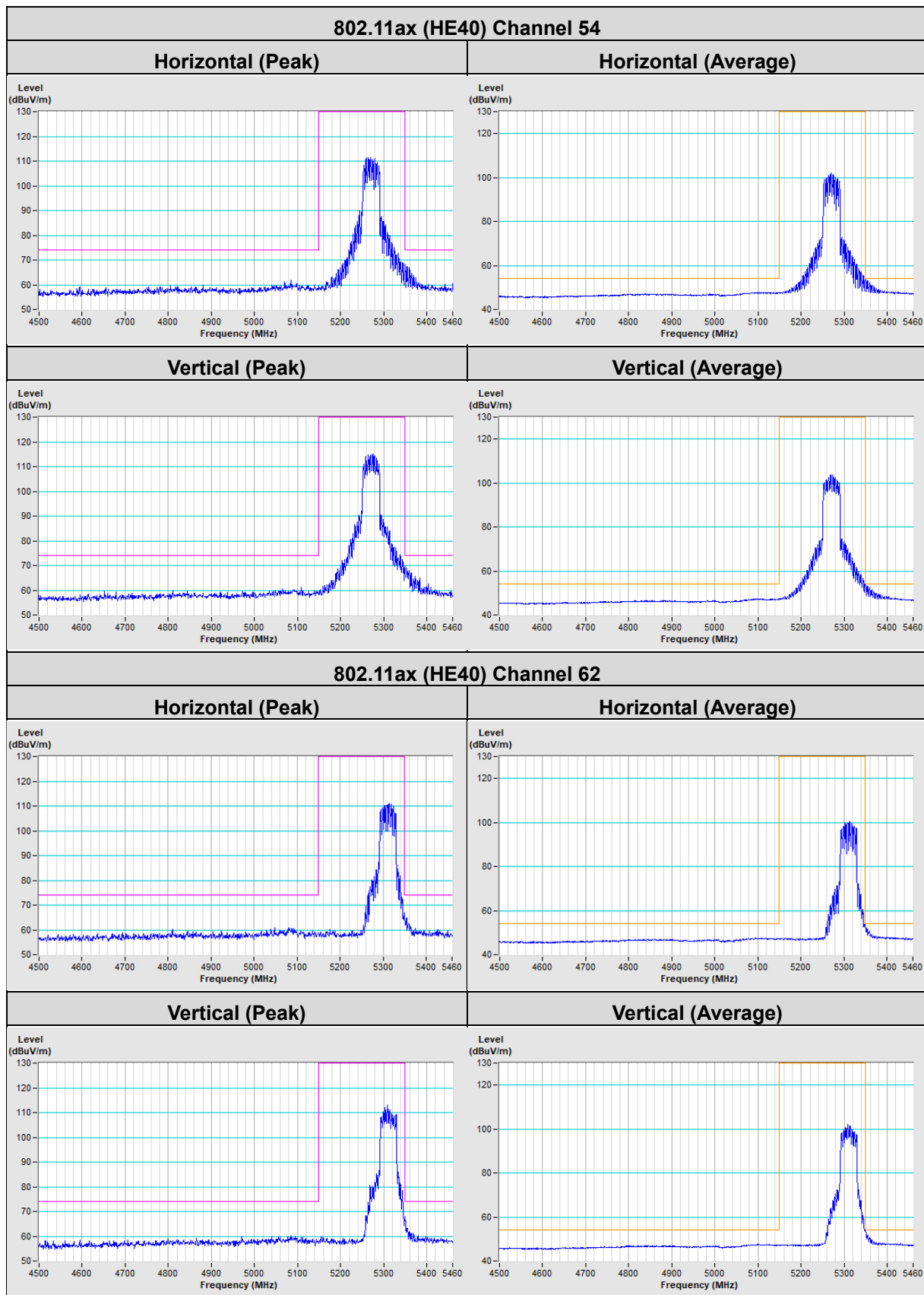


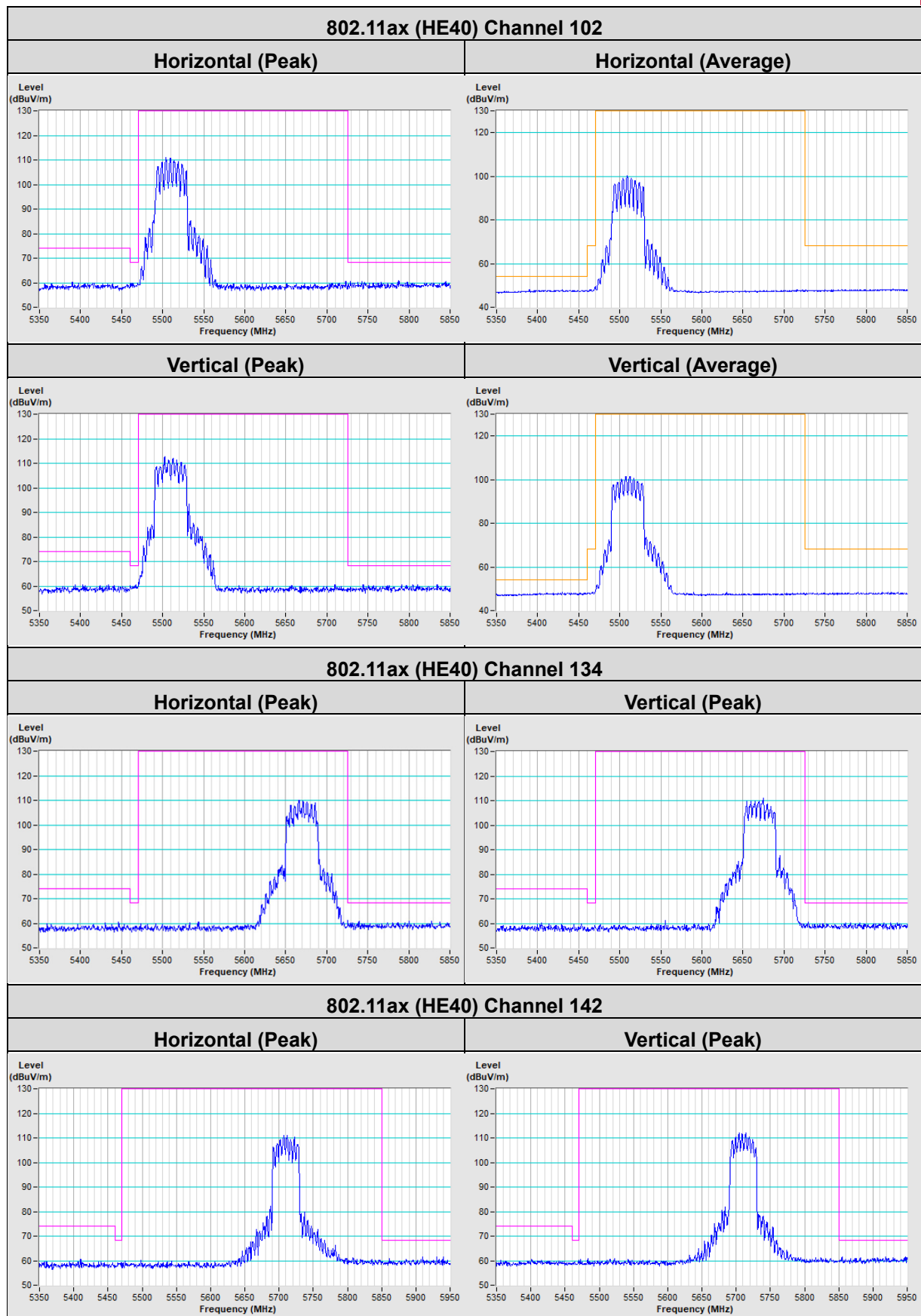


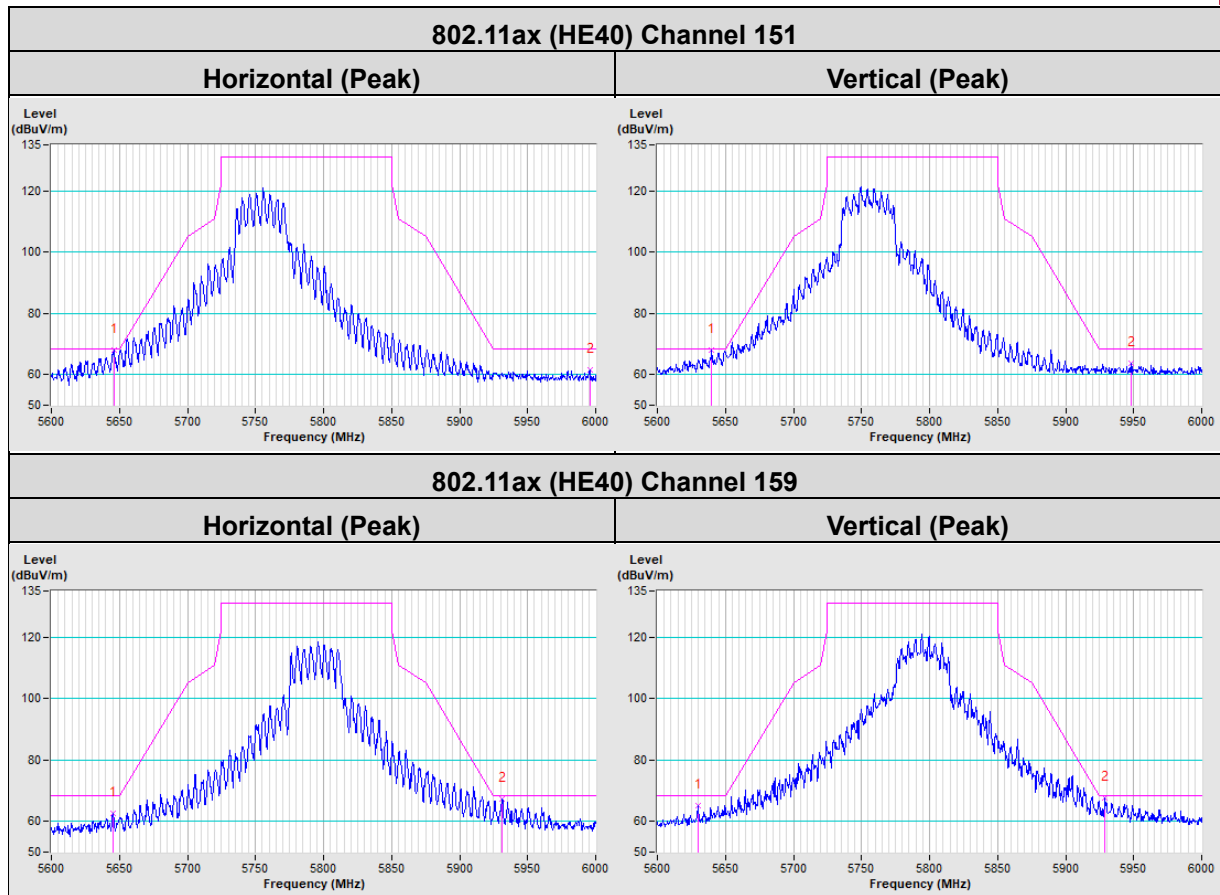


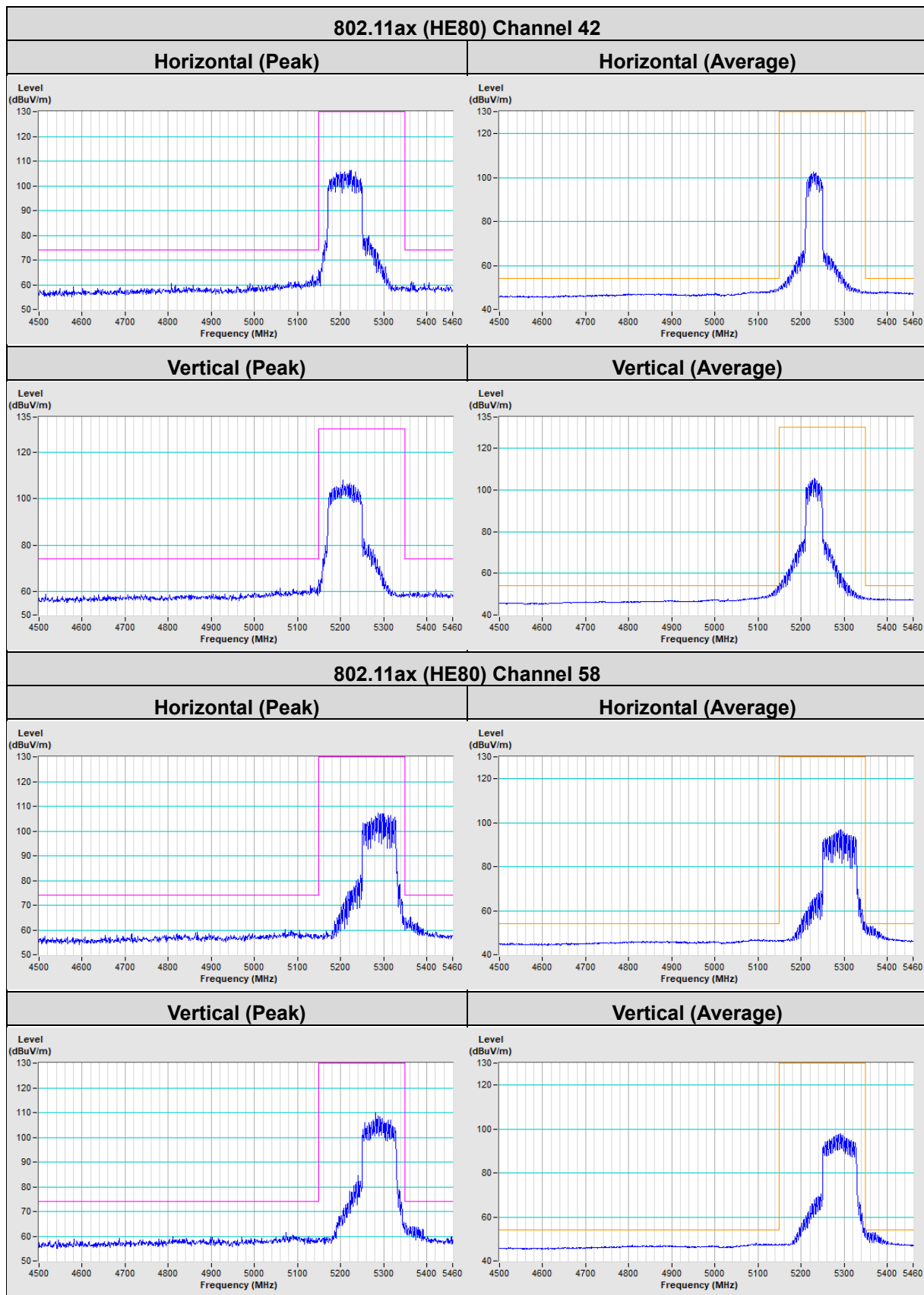


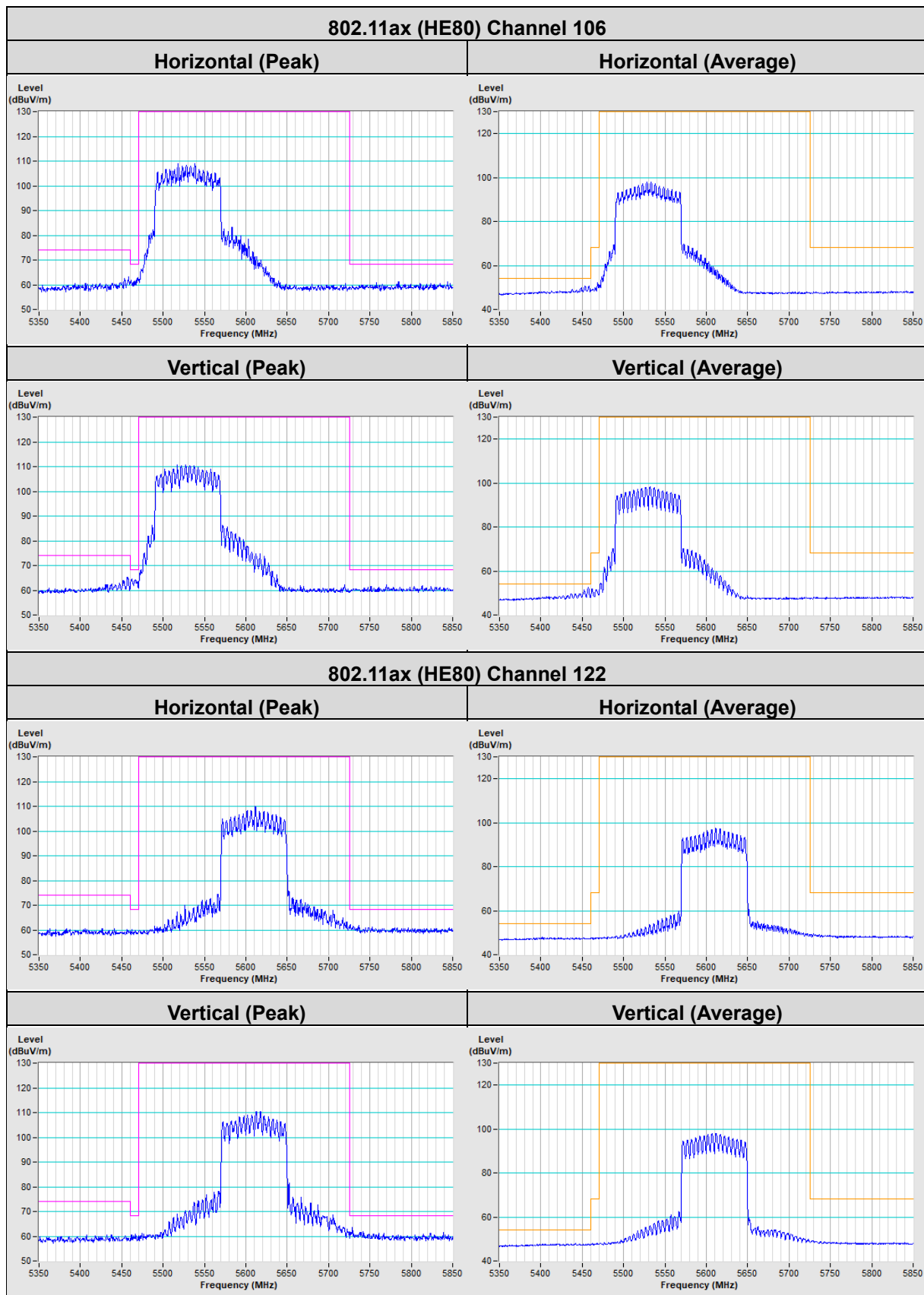


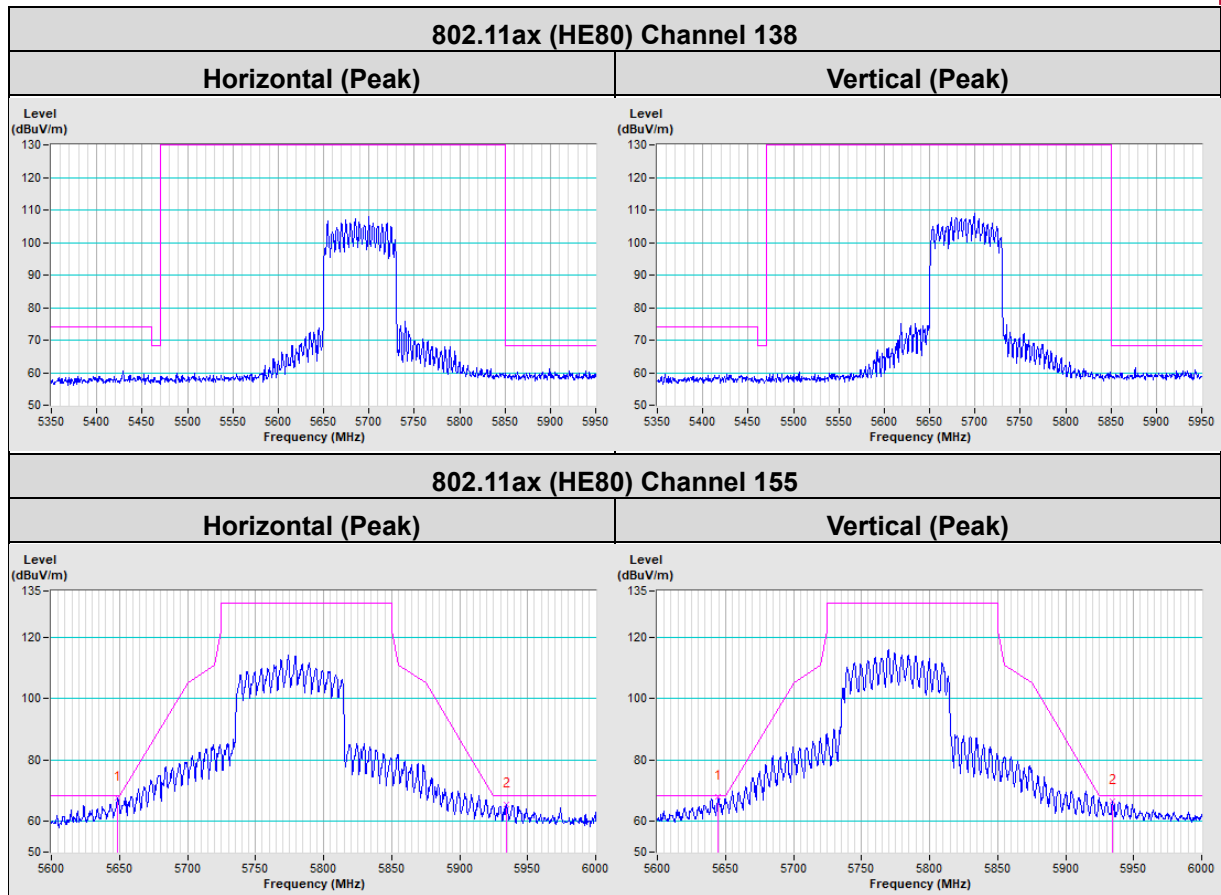


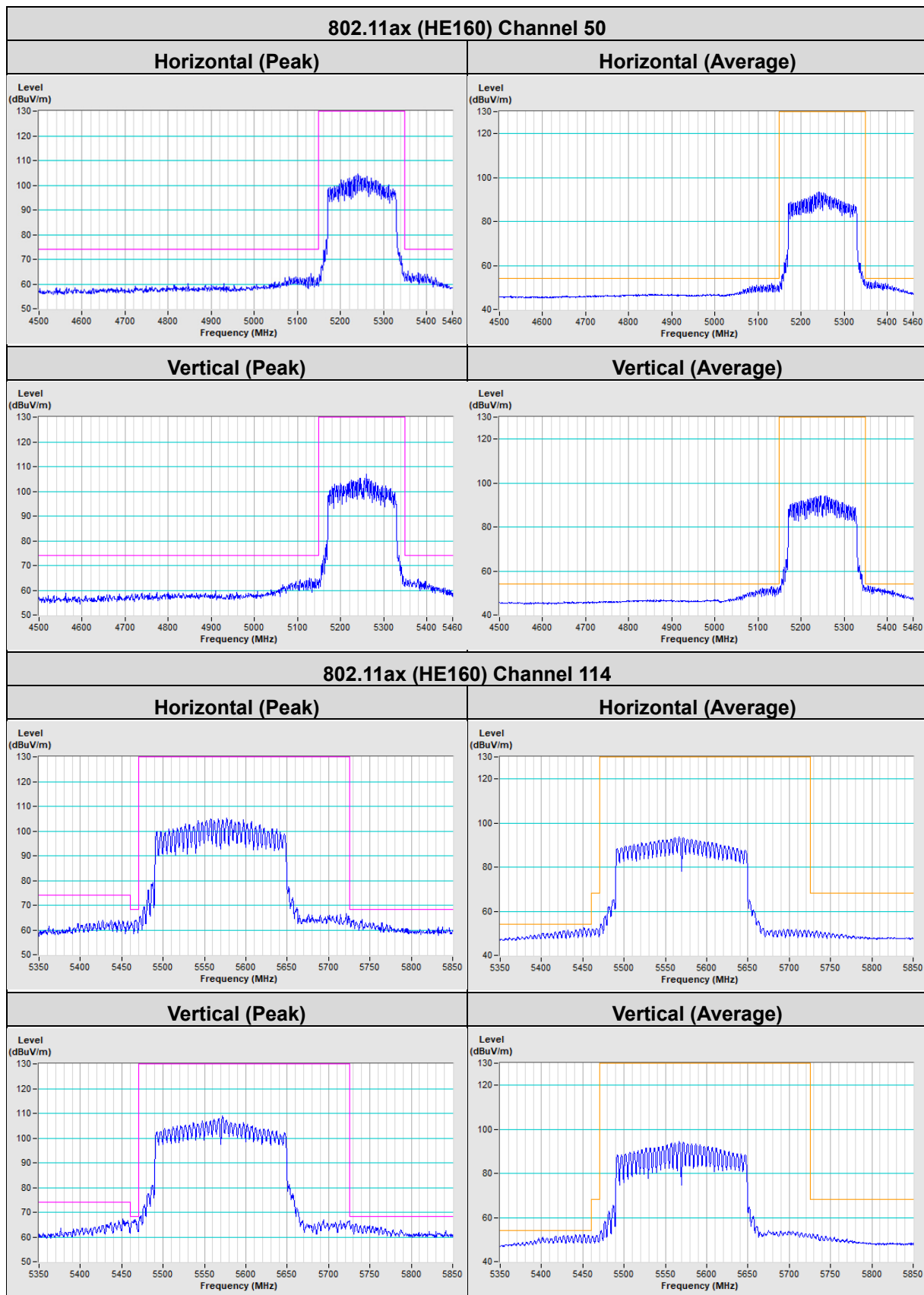












8 Pictures of Test Arrangements

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:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

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.

--- END ---