

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBBQZ-WTW-P22060184-1

FCC ID: PY322300569

Model No.: WAX214v2

Received Date: 2022/6/8

Test Date: 2022/8/31 ~ 2022/9/22

Issued Date: 2022/10/3

Applicant and Manufacturer: NETGEAR, INC.

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

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

FCC Registration / 788550 / TW0003

Designation Number:

Approved by: _____

Jeremy Lin

Date: _____

2022/10/3

Jeremy Lin / Project Engineer

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Prepared by : Celine Chou / Senior Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22060184-1	Original release.	2022/10/3

1 Certificate

Product: WiFi 6 AX1800 Dual Band Access Point

Brand: NETGEAR

Test Model: WAX214v2

Sample Status: Engineering sample

Applicant and Manufacturer: NETGEAR, INC.

Test Date: 2022/8/31 ~ 2022/9/22

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	Pass	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -15.29 dB at 0.37800 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.6 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 5149.00, 5150.00, 5725.00, 5850.00 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:

Parameter	Specification	Uncertainty (±)
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	3.60 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 AX1800 Dual Band Access Point
Brand	NETGEAR
Test Model	WAX214v2
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 300 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1200 Mbps
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5240 MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 5260 ~ 5320 MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 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 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: 809.205 mW (29.08 dBm) 5260 ~ 5320 MHz: 209.104 mW (23.20 dBm) 5500 ~ 5720 MHz: 211.369 mW (23.25 dBm) 5745 ~ 5825 MHz: 833.88 mW (29.21 dBm) Beamforming Mode: 5180 ~ 5240 MHz: 809.205 mW (29.08 dBm) 5260 ~ 5320 MHz: 209.104 mW (23.20 dBm) 5500 ~ 5720 MHz: 211.369 mW (23.25 dBm) 5745 ~ 5825 MHz: 833.88 mW (29.21 dBm)
EUT Category	Indoor Access Point

Note:

1. The EUT uses following accessories.

Adapter 1	
Brand	NETGEAR
Model	AD2076F10
Part Number	332-10993-02
Input Power	100-120 Vac, 50/60 Hz, 0.56 A
Output Power	12 Vdc, 1.5 A
DC cable	1.8m DC cable without core

Adapter 2	
Brand	NETGEAR
Model	ADS-18FQ-12 12018EPCU-L ADS-18FQ-12 12018EPC-L
Part Number	332-11523-02
Input Power	100-120 Vac, 60 Hz, Max. 0.7 A
Output Power	12 Vdc, 1.5 A
DC cable	1.8m DC cable without core

Adapter 3	
Brand	NETGEAR
Model	2AAJ018F 1
Part Number	332-11572-01
Input Power	100-120 Vac, 50/60 Hz, 0.6 A
Output Power	12.0 Vdc, 1.5 A
DC cable	1.83m 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 refer to the manufacturer's specifications or user's manual.

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	6.29
5150~5250MHz	6.03
5250~5350MHz	6.07
5470~5725MHz	6.04
5725~5850MHz	6.27

* The detailed antenna information, please refer to the Test report-Antenna Spec.pdf.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	Tx & Rx Configuration	
802.11a	2TX	3RX
802.11n (HT20)	2TX	3RX
802.11n (HT40)	2TX	3RX
802.11ac (VHT20)	2TX	3RX
802.11ac (VHT40)	2TX	3RX
802.11ac (VHT80)	2TX	3RX
802.11ax (HE20)	2TX	3RX
802.11ax (HE40)	2TX	3RX
802.11ax (HE80)	2TX	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 and 802.11ax mode for 20 MHz / 40 MHz / 80 MHz, 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.

3.3 Channel List

For 5180 ~ 5240 MHz

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

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

Channel	Frequency
42	5210MHz

For 5260 ~ 5320MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290MHz

For 5500 ~ 5720 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		

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	A	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
RF Output Power	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
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
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
Frequency Stability	A	802.11a	CDD	36	un-modulation	-
AC Power Conducted Emissions	A, B, C ,D	802.11ax (HE20)	CDD	157	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B, C ,D	802.11ax (HE20)	CDD	157	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
EUT Configure Mode:	A	Powered by adapter 1				
	B	Powered by adapter 2				
	C	Powered by adapter 3				
	D	Powered by POE				

3.5 Duty Cycle of Test Signal

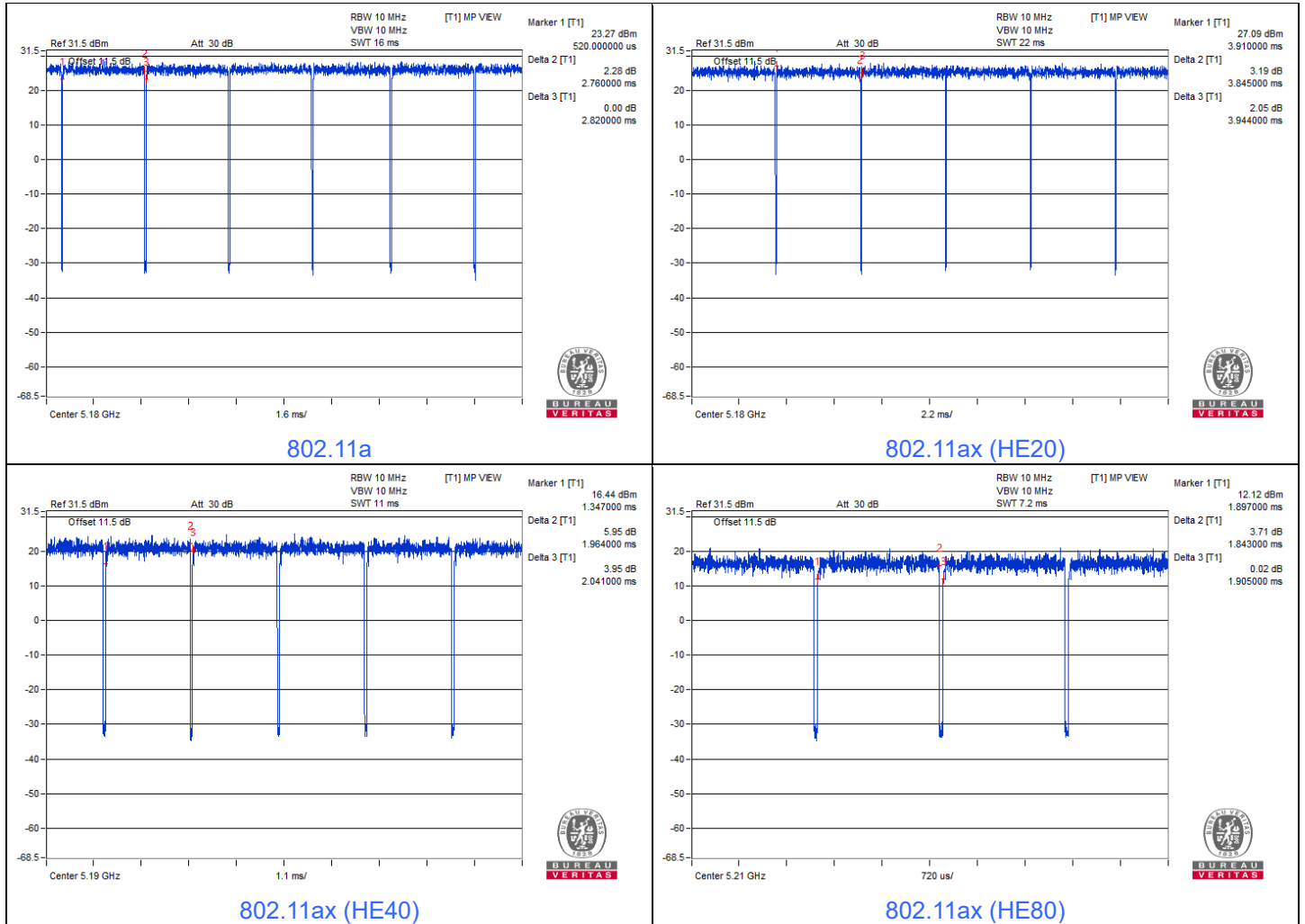
Duty cycle of test signal is $\geq 98\%$, duty factor is not required.
 Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11a: Duty cycle = $2.76 \text{ ms} / 2.82 \text{ ms} \times 100\% = 97.9\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.09 \text{ dB}$

802.11ax (HE20): Duty cycle = $3.845 \text{ ms} / 3.944 \text{ ms} \times 100\% = 97.5\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.11 \text{ dB}$

802.11ax (HE40): Duty cycle = $1.964 \text{ ms} / 2.041 \text{ ms} \times 100\% = 96.2\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.17 \text{ dB}$

802.11ax (HE80): Duty cycle = $1.843 \text{ ms} / 1.905 \text{ ms} \times 100\% = 96.7\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.14 \text{ dB}$

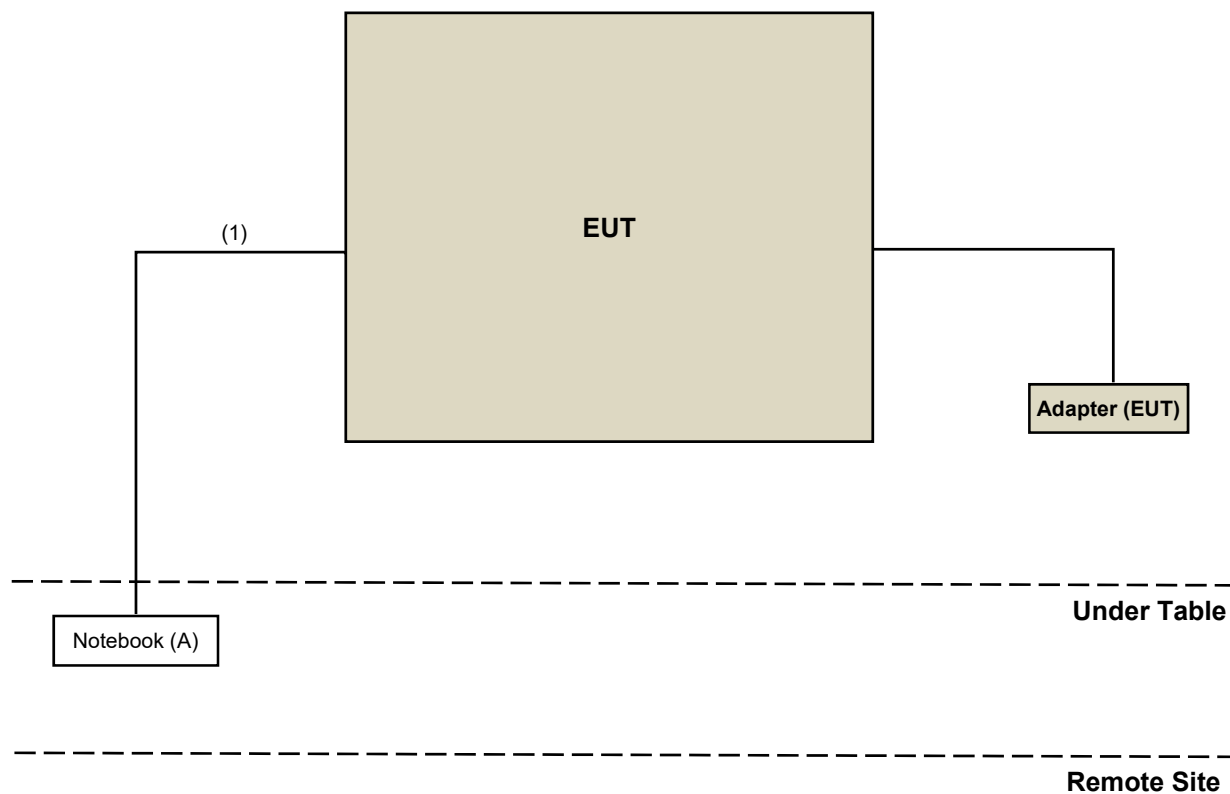


3.6 Test Program Used and Operation Descriptions

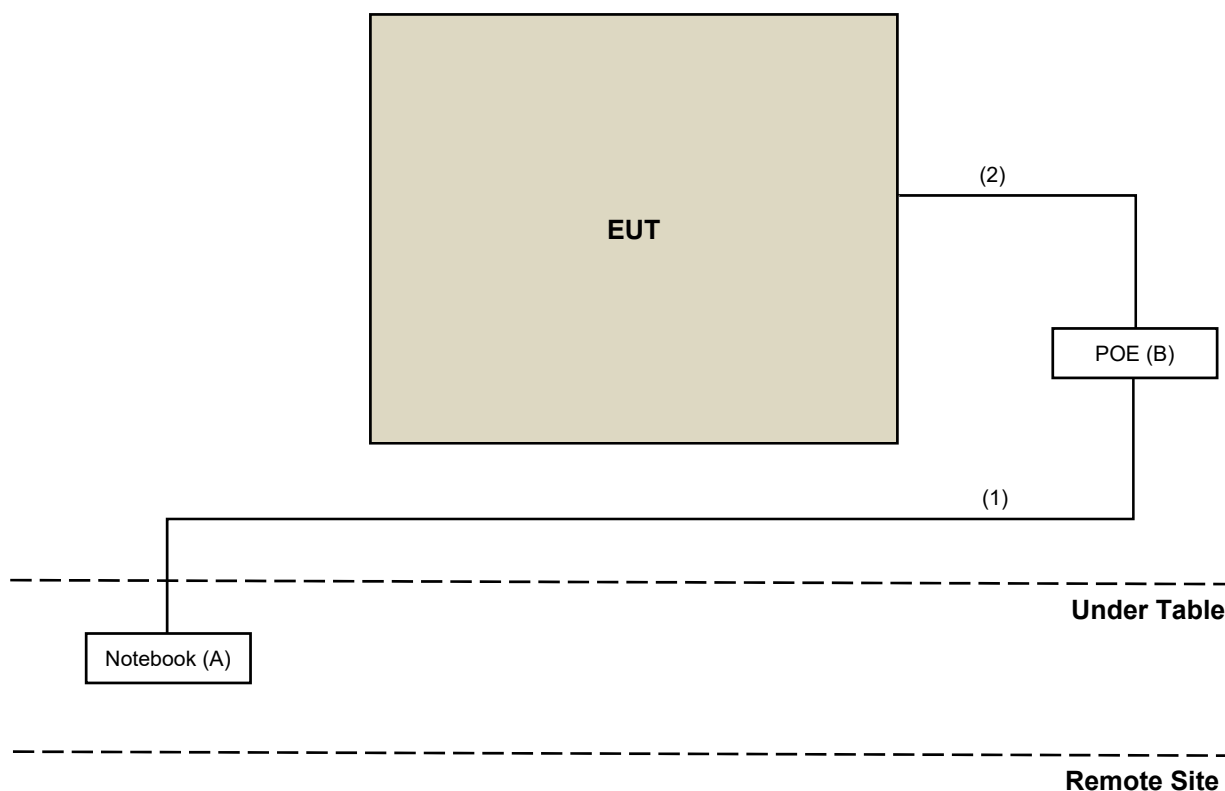
Controlling software QA UI (MT915) Version : 0.0.2.15 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

Test Mode A, B, C



Test Mode D



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	3/25/2022	3/24/2023

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/20

4.2 RF Output Power

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/22

4.3 Power Spectral Density

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	3/25/2022	3/24/2023

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/22

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	6/23/2022	6/22/2023
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	3/25/2022	3/24/2023
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	1/3/2022	1/2/2023

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/20

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	11/10/2021	11/9/2022
LISN R&S	ESH3-Z5	100220	11/25/2021	11/24/2022
LISN ROHDE & SCHWARZ	ENV216	101826	3/14/2022	3/13/2023
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	1/15/2022	1/14/2023
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	12/3/2021	12/2/2022
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	8/31/2022	8/30/2023

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/9/15 ~ 2022/9/16

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	11/1/2021	10/31/2022
Loop Antenna TESEQ	HLA 6121	45745	7/27/2022	7/26/2023
Pre_Amplifier Agilent	8447D	2944A10631	5/14/2022	5/13/2023
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	1/15/2022	1/14/2023
	EMC102-KM-KM-600	150928	7/9/2022	7/8/2023
	EMC102-KM-KM-3000	150929	7/9/2022	7/8/2023
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	4/13/2022	4/12/2023
Test Receiver R&S	ESCI	100424	12/30/2021	12/29/2022
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: 2022/9/16

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	10/26/2021	10/25/2022
Pre-Amplifier EMCI	EMC 184045	980116	10/5/2021	10/4/2022
Pre_Amplifier KEYSIGHT	83017A	MY53270295	5/14/2022	5/13/2023
RF cable HUBER+SUHNER	Sucoflex 104	MY 13380+295012/04	5/14/2022	5/13/2023
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03(250724)	5/14/2022	5/13/2023
		CABLE-CH9-(250795/4)	1/15/2022	1/14/2023
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	1/15/2022	1/14/2023
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	4/13/2022	4/12/2023
Test Receiver R&S	ESCI	100424	12/30/2021	12/29/2022
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: 2022/8/31 ~ 2022/9/12

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.		*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

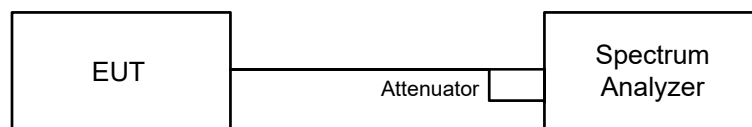
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

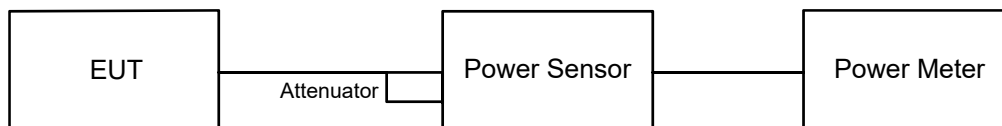


6.1.2 Test Procedure

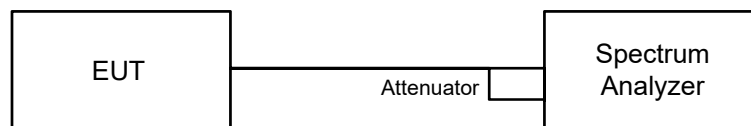
- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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

For channel straddling:

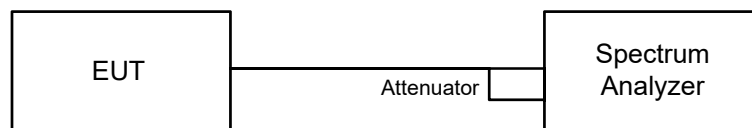
Method SA-2A

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
- c. Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- d. Manually set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
- e. Perform a single sweep.
- f. Record the max value and add $10 \log (1/\text{duty cycle})$.

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-2A

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Manually set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
- Perform a single sweep.
- Record the max value and add $10 \log (1/\text{duty cycle})$.

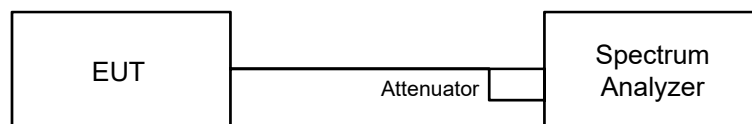
For specified measurement bandwidth 500 kHz:

Method SA-2A

- 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.)
- Manually set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
- Perform a single sweep.
- Record the max value and add $10 \log (1/\text{duty cycle})$.

6.4 6 dB Bandwidth

6.4.1 Test Setup

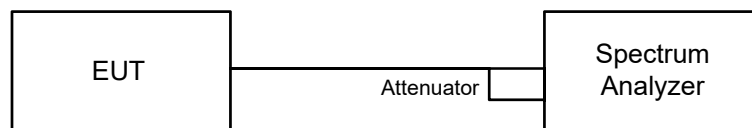


6.4.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$, 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

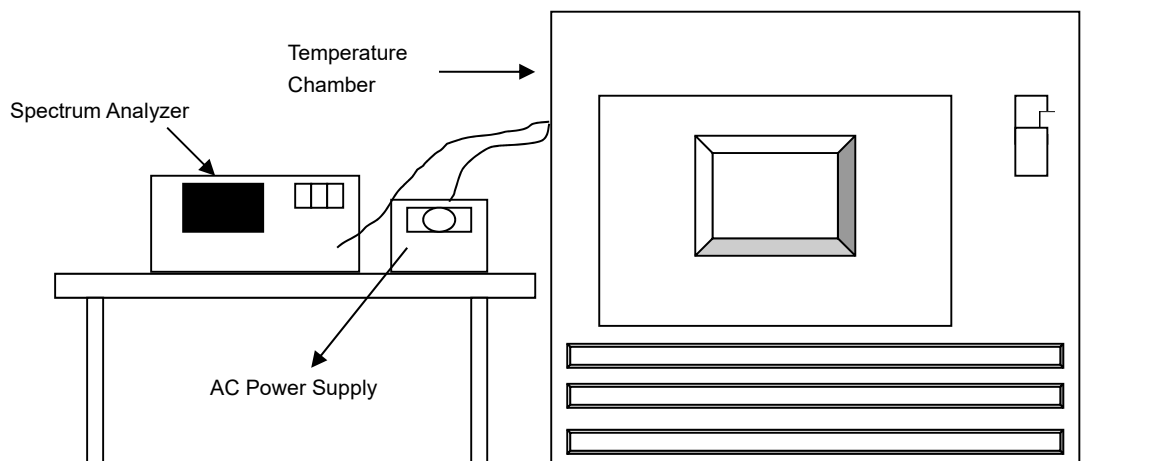


6.5.2 Test Procedure

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

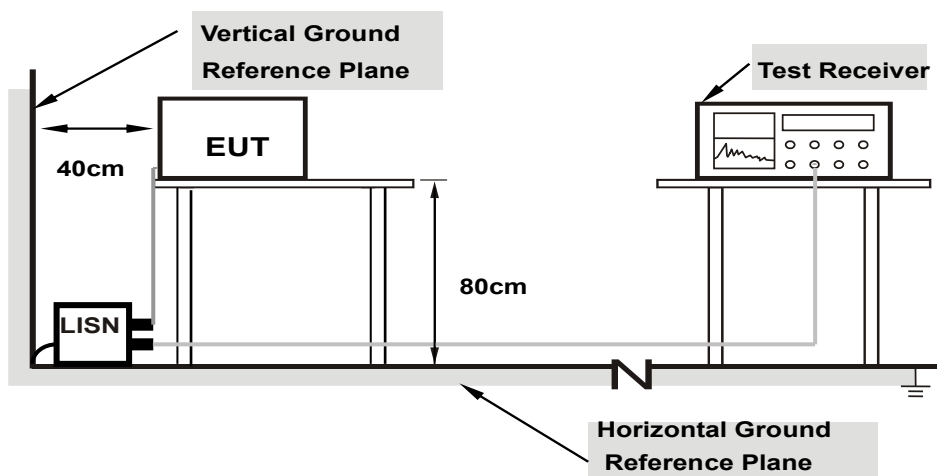


6.6.2 Test Procedure

- 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

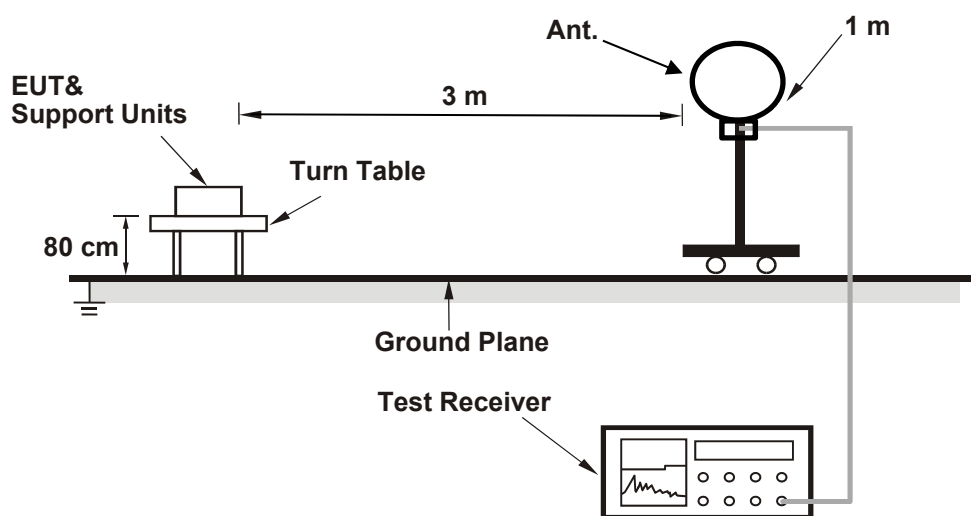
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

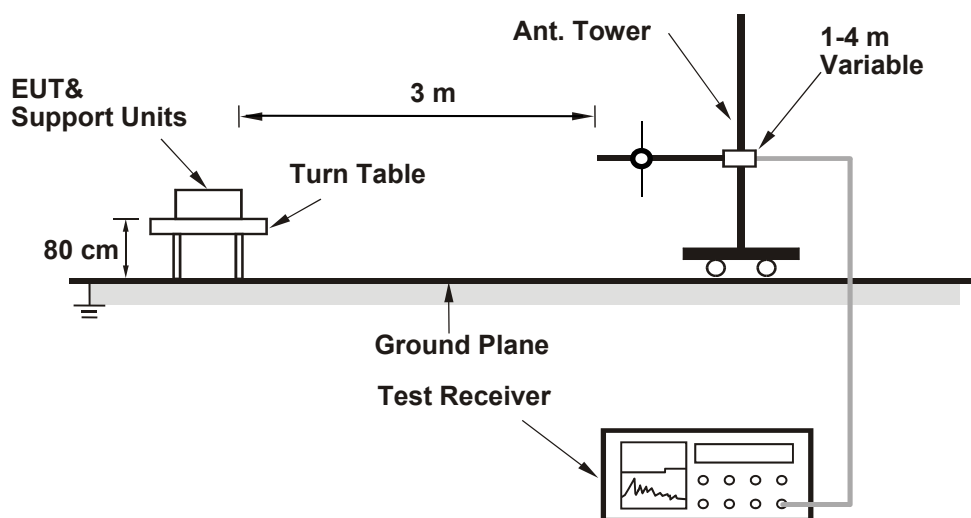
6.8 Unwanted Emissions below 1 GHz

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

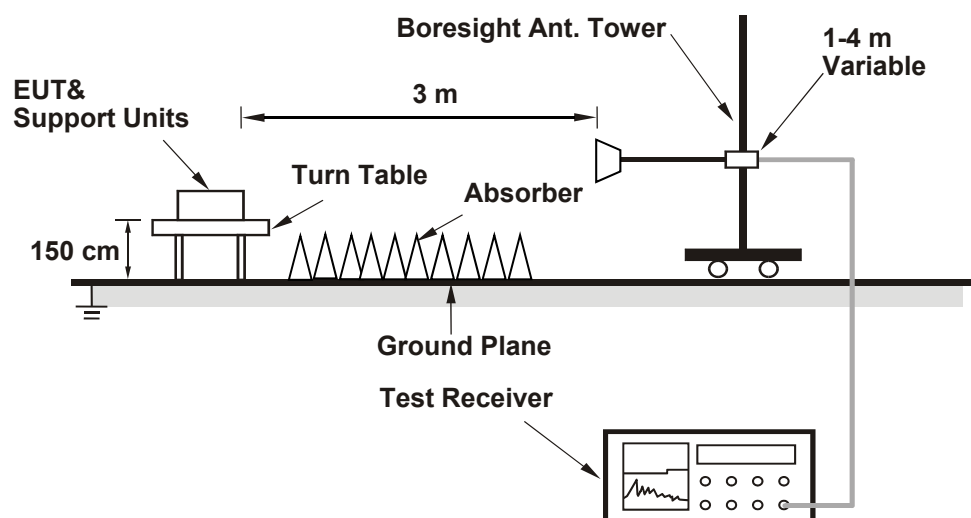
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.
- 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:	Chris Lin
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802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.30	20.28
60	5300	20.28	20.22
64	5320	20.09	20.08
100	5500	20.31	20.39
116	5580	20.30	20.13
140	5700	20.41	20.18
144 (U-NII-2C)	5720	15.25	15.17

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.28	24.07 > 24
60	5300	20.22	24.05 > 24
64	5320	20.08	24.02 > 24
100	5500	20.31	24.07 > 24
116	5580	20.13	24.03 > 24
140	5700	20.18	24.04 > 24
144 (U-NII-2C)	5720	15.17	22.8 < 24

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

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	23.55	24.25
60	5300	23.59	22.29
64	5320	29.48	22.07
100	5500	23.25	22.09
116	5580	22.14	22.76
140	5700	22.06	21.86
144 (U-NII-2C)	5720	17.02	15.74

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	23.55	24.71 > 24
60	5300	22.29	24.48 > 24
64	5320	22.07	24.43 > 24
100	5500	22.09	24.44 > 24
116	5580	22.14	24.45 > 24
140	5700	21.86	24.39 > 24
144 (U-NII-2C)	5720	15.74	22.97 < 24

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

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	40.77	41.07
62	5310	40.70	40.80
102	5510	40.67	40.81
110	5550	40.78	40.94
134	5670	40.60	41.18
142 (U-NII-2C)	5710	35.43	35.32

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	40.77	27.1 > 24
62	5310	40.70	27.09 > 24
102	5510	40.67	27.09 > 24
110	5550	40.78	27.1 > 24
134	5670	40.60	27.08 > 24
142 (U-NII-2C)	5710	35.32	26.48 > 24

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

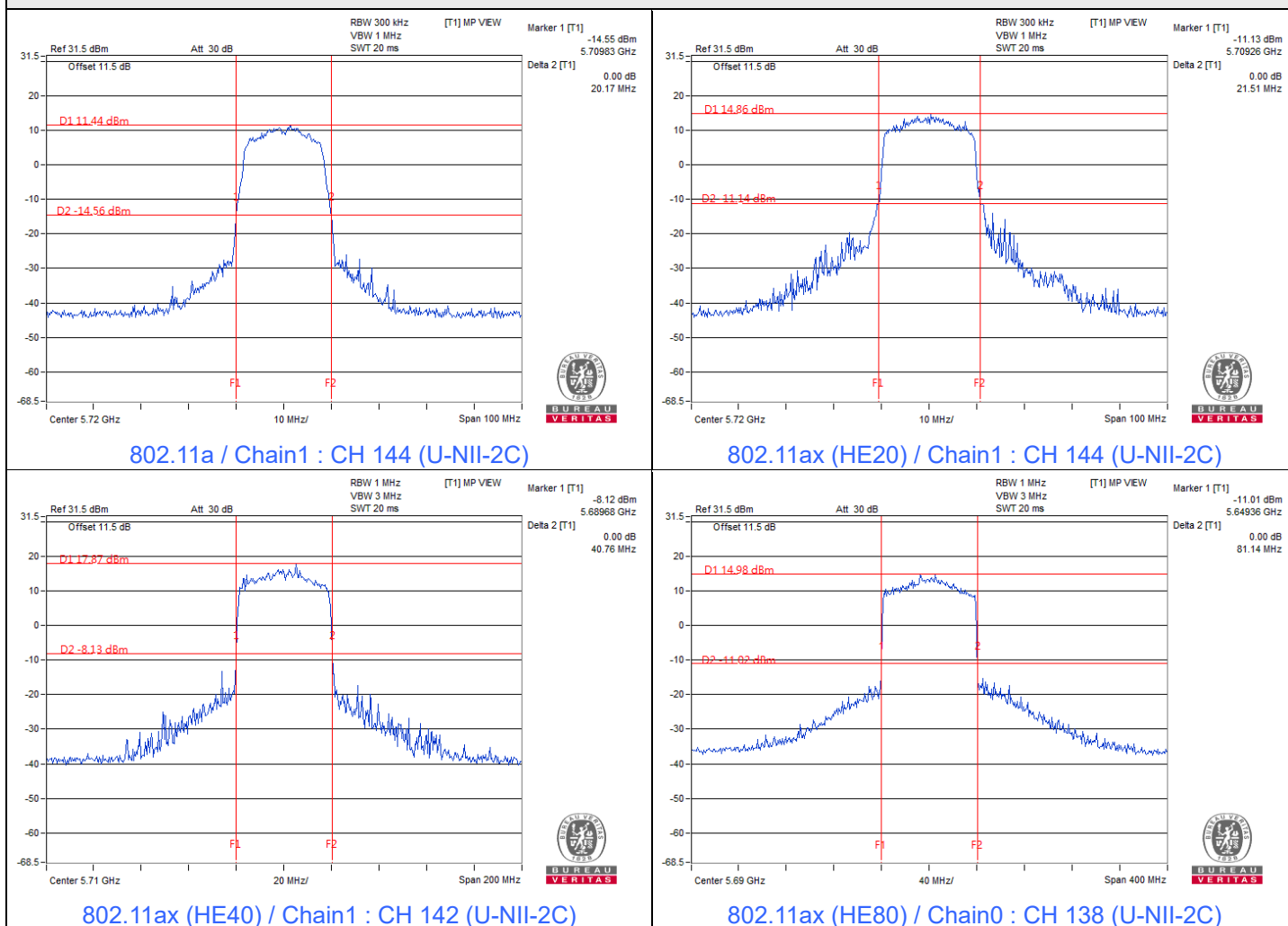
802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.14	81.61
106	5530	80.92	81.18
122	5610	81.17	81.34
138 (U-NII-2C)	5690	75.64	75.70

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	81.14	30.09 > 24
106	5530	80.92	30.08 > 24
122	5610	81.17	30.09 > 24
138 (U-NII-2C)	5690	75.64	29.78 > 24

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

Spectrum Plot of Minimum Value

**Notes:**

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

7.2 RF Output Power

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

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	22.03	22.18	324.784	25.12	30	Pass
40	5200	25.89	25.82	770.095	28.87	30	Pass
48	5240	25.65	25.32	707.690	28.50	30	Pass
52	5260	19.74	18.56	165.968	22.20	24	Pass
60	5300	19.80	18.87	172.590	22.37	24	Pass
64	5320	19.47	18.80	164.369	22.16	24	Pass
100	5500	19.47	19.13	170.358	22.31	24	Pass
116	5580	19.35	19.27	170.627	22.32	24	Pass
140	5700	19.64	18.94	170.388	22.31	24	Pass
*144 (U-NII-2C)	5720	18.53	18.39	143.359	21.56	22.8	Pass
*144 (U-NII-3)	5720	9.33	9.22	17.294	12.38	30	Pass
149	5745	26.12	26.25	830.957	29.20	30	Pass
157	5785	26.13	26.08	815.713	29.12	30	Pass
165	5825	26.15	26.21	829.928	29.19	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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				
36	5180	21.28	21.04	261.334	24.17	30	Pass
40	5200	25.72	25.63	738.845	28.69	30	Pass
48	5240	26.12	26.02	809.205	29.08	30	Pass
52	5260	20.23	19.34	191.340	22.82	24	Pass
60	5300	20.17	19.70	197.317	22.95	24	Pass
64	5320	20.10	19.23	186.082	22.70	24	Pass
100	5500	20.42	19.85	206.759	23.15	24	Pass
116	5580	20.23	20.25	211.364	23.25	24	Pass
140	5700	18.63	18.02	136.333	21.35	24	Pass
*144 (U-NII-2C)	5720	18.73	18.46	148.518	21.72	22.97	Pass
*144 (U-NII-3)	5720	11.91	12.43	33.873	15.30	30	Pass
149	5745	26.12	26.21	827.091	29.18	30	Pass
157	5785	26.12	26.28	833.880	29.21	30	Pass
165	5825	26.15	26.21	829.928	29.19	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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				
38	5190	19.10	18.99	160.533	22.06	30	Pass
46	5230	24.82	24.40	578.812	27.63	30	Pass
54	5270	20.59	19.57	205.125	23.12	24	Pass
62	5310	20.36	20.02	209.104	23.20	24	Pass
102	5510	18.23	17.95	128.901	21.10	24	Pass
110	5550	20.27	20.21	211.369	23.25	24	Pass
134	5670	20.26	20.22	211.366	23.25	24	Pass
*142 (U-NII-2C)	5710	19.31	19.18	174.695	22.42	24	Pass
*142 (U-NII-3)	5710	7.67	7.93	12.529	10.98	30	Pass
151	5755	26.12	26.15	821.358	29.15	30	Pass
159	5795	26.17	26.19	829.910	29.19	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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				
42	5210	17.28	18.62	126.234	21.01	30	Pass
58	5290	19.79	18.62	168.058	22.25	24	Pass
106	5530	17.82	17.38	115.236	20.62	24	Pass
122	5610	20.25	20.18	210.157	23.23	24	Pass
*138 (U-NII-2C)	5690	19.83	19.29	187.171	22.72	24	Pass
*138 (U-NII-3)	5690	4.39	3.35	5.076	7.06	30	Pass
155	5775	24.59	24.03	540.67	27.33	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- Directional gain is the maximum gain of antennas.

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				
36	5180	21.28	21.04	261.334	24.17	29.97	Pass
40	5200	25.72	25.63	738.845	28.69	29.97	Pass
48	5240	26.12	26.02	809.205	29.08	29.97	Pass
52	5260	20.23	19.34	191.340	22.82	23.93	Pass
60	5300	20.17	19.70	197.317	22.95	23.93	Pass
64	5320	20.10	19.23	186.082	22.70	23.93	Pass
100	5500	20.42	19.85	206.759	23.15	23.96	Pass
116	5580	20.23	20.25	211.364	23.25	23.96	Pass
140	5700	18.63	18.02	136.333	21.35	23.96	Pass
*144 (U-NII-2C)	5720	18.73	18.46	148.518	21.72	22.93	Pass
*144 (U-NII-3)	5720	11.91	12.43	33.873	15.30	29.73	Pass
149	5745	26.12	26.21	827.091	29.18	29.73	Pass
157	5785	26.12	26.28	833.880	29.21	29.73	Pass
165	5825	26.15	26.21	829.928	29.19	29.73	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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 6.03 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.03-6) = 29.97$ dBm.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.07-6)].
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.04-6)].
- For U-NII-3, the directional gain is 6.27 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.27-6) = 29.73$ 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				
38	5190	19.10	18.99	160.533	22.06	29.97	Pass
46	5230	24.82	24.40	578.812	27.63	29.97	Pass
54	5270	20.59	19.57	205.125	23.12	23.93	Pass
62	5310	20.36	20.02	209.104	23.20	23.93	Pass
102	5510	18.23	17.95	128.901	21.10	23.96	Pass
110	5550	20.27	20.21	211.369	23.25	23.96	Pass
134	5670	20.26	20.22	211.366	23.25	23.96	Pass
*142 (U-NII-2C)	5710	19.31	19.18	174.695	22.42	23.96	Pass
*142 (U-NII-3)	5710	7.67	7.93	12.529	10.98	29.73	Pass
151	5755	26.12	26.15	821.358	29.15	29.73	Pass
159	5795	26.17	26.19	829.910	29.19	29.73	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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 6.03 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.03-6) = 29.97$ dBm.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.07-6)].
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.04-6)].
- For U-NII-3, the directional gain is 6.27 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.27-6) = 29.73$ 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				
42	5210	17.28	18.62	126.234	21.01	29.97	Pass
58	5290	19.79	18.62	168.058	22.25	23.93	Pass
106	5530	17.82	17.38	115.236	20.62	23.96	Pass
122	5610	20.25	20.18	210.157	23.23	23.96	Pass
*138 (U-NII-2C)	5690	19.83	19.29	187.171	22.72	23.96	Pass
*138 (U-NII-3)	5690	4.39	3.35	5.076	7.06	29.73	Pass
155	5775	24.59	24.03	540.67	27.33	29.73	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- 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 6.03 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.03-6) = 29.97$ dBm.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.07-6)].
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(6.04-6)].
- For U-NII-3, the directional gain is 6.27 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.27-6) = 29.73$ dBm.

7.3 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	9.21	9.24	0.09	12.33	16.97	Pass
40	5200	13.58	13.69	0.09	16.74	16.97	Pass
48	5240	13.26	13.38	0.09	16.42	16.97	Pass
52	5260	7.63	7.54	0.09	10.69	10.93	Pass
60	5300	7.66	7.56	0.09	10.71	10.93	Pass
64	5320	7.41	7.70	0.09	10.66	10.93	Pass
100	5500	7.45	7.53	0.09	10.59	10.96	Pass
116	5580	7.73	7.48	0.09	10.71	10.96	Pass
140	5700	7.43	7.31	0.09	10.47	10.96	Pass
144 (U-NII-2C)	5720	7.69	7.45	0.09	10.67	10.96	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 6.03 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.03-6) = 16.97$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.07-6) = 10.93$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.04-6) = 10.96$ dBm/MHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	8.51	8.24	0.11	11.50	16.97	Pass
40	5200	13.61	13.38	0.11	16.62	16.97	Pass
48	5240	13.60	13.64	0.11	16.74	16.97	Pass
52	5260	7.95	7.36	0.11	10.79	10.93	Pass
60	5300	7.34	7.27	0.11	10.43	10.93	Pass
64	5320	7.56	7.73	0.11	10.77	10.93	Pass
100	5500	7.24	7.77	0.11	10.63	10.96	Pass
116	5580	7.59	7.59	0.11	10.71	10.96	Pass
140	5700	7.64	6.52	0.11	10.24	10.96	Pass
144 (U-NII-2C)	5720	7.50	7.49	0.11	10.62	10.96	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 6.03 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.03-6) = 16.97$ dBm/MHz.
4. For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.07-6) = 10.93$ dBm/MHz.
5. For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.04-6) = 10.96$ dBm/MHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
38	5190	3.68	2.94	0.17	6.51	16.97	Pass
46	5230	8.48	8.45	0.17	11.65	16.97	Pass
54	5270	4.55	3.61	0.17	7.29	10.93	Pass
62	5310	4.74	4.36	0.17	7.73	10.93	Pass
102	5510	2.63	1.93	0.17	5.47	10.96	Pass
110	5550	4.30	4.39	0.17	7.53	10.96	Pass
134	5670	4.65	4.75	0.17	7.88	10.96	Pass
142 (U-NII-2C)	5710	4.29	3.79	0.17	7.23	10.96	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 6.03 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.03-6) = 16.97$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.07-6) = 10.93$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.04-6) = 10.96$ dBm/MHz.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
42	5210	-1.68	-0.47	0.14	2.12	16.97	Pass
58	5290	0.42	-0.56	0.14	3.11	10.93	Pass
106	5530	-1.20	-1.30	0.14	1.90	10.96	Pass
122	5610	1.65	1.22	0.14	4.59	10.96	Pass
138 (U-NII-2C)	5690	1.26	1.24	0.14	4.40	10.96	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 6.03 dBi > 6dBi, so the power density limit shall be reduced to $17-(6.03-6) = 16.97$ dBm/MHz.
- For U-NII-2A, the directional gain is 6.07 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.07-6) = 10.93$ dBm/MHz.
- For U-NII-2C, the directional gain is 6.04 dBi > 6 dBi, so the power density limit shall be reduced to $11-(6.04-6) = 10.96$ dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	-5.01	-5.16	-2.07	0.09	0.24	29.73	Pass
149	5745	6.33	6.84	9.60	0.09	11.91	29.73	Pass
157	5785	6.03	6.45	9.26	0.09	11.57	29.73	Pass
165	5825	6.65	5.93	9.32	0.09	11.63	29.73	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 6.27 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.27-6) = 29.73$ dBm/500kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	-4.51	-3.29	-0.85	0.11	1.48	29.73	Pass
149	5745	4.37	5.61	8.04	0.11	10.37	29.73	Pass
157	5785	4.19	5.48	7.89	0.11	10.22	29.73	Pass
165	5825	3.85	5.04	7.50	0.11	9.83	29.73	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 6.27 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.27-6) = 29.73$ dBm/500kHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
142 (U-NII-3)	5710	-8.71	-7.76	-5.20	0.17	-2.81	29.73	Pass
151	5755	1.65	2.87	5.31	0.17	7.70	29.73	Pass
159	5795	1.29	2.33	4.85	0.17	7.24	29.73	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 6.27 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.27-6) = 29.73$ dBm/500kHz.



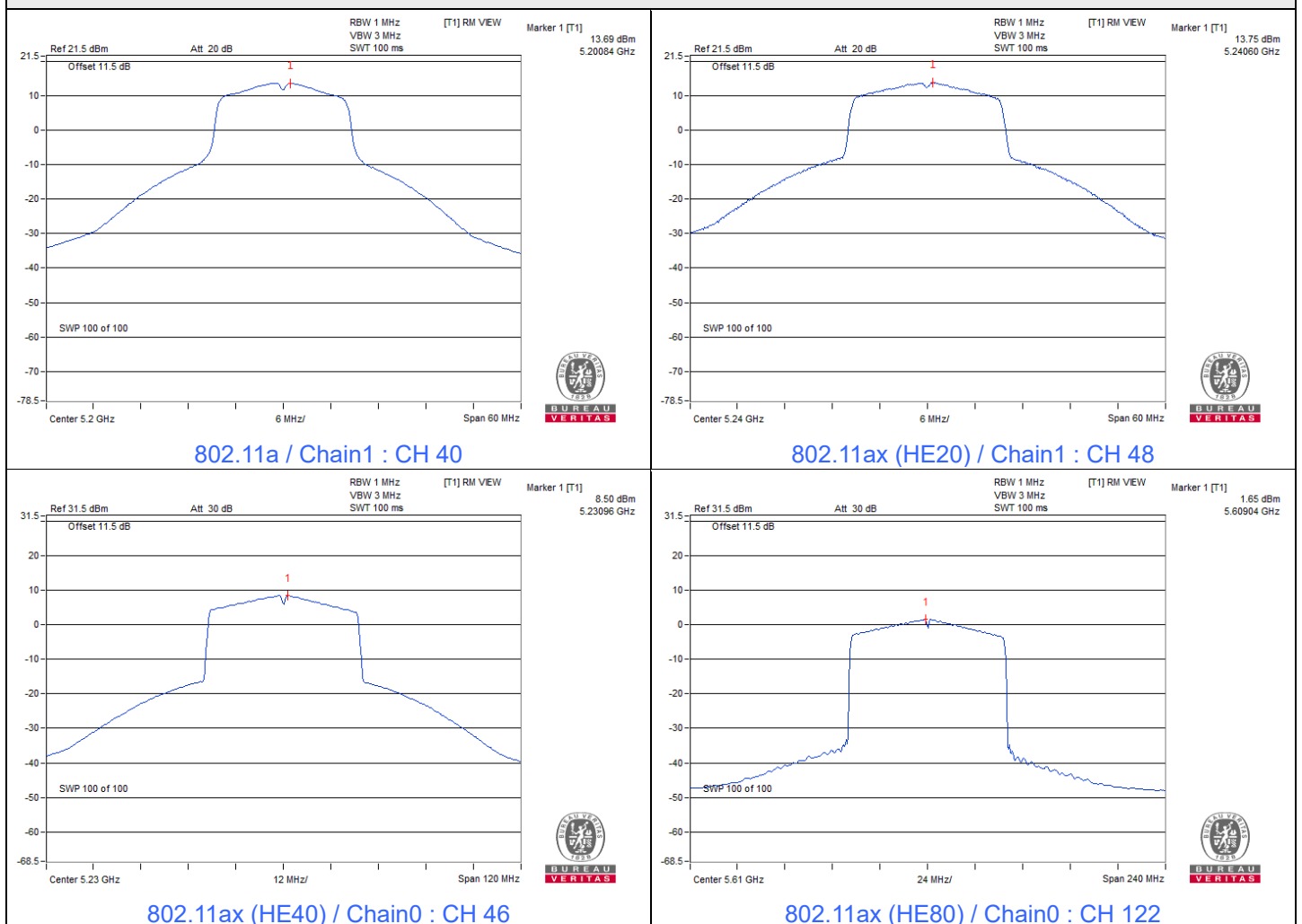
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
138 (U-NII-3)	5690	-12.02	-11.21	-8.59	0.14	-6.23	29.73	Pass
155	5775	-3.83	-2.76	-0.25	0.14	2.11	29.73	Pass

Notes:

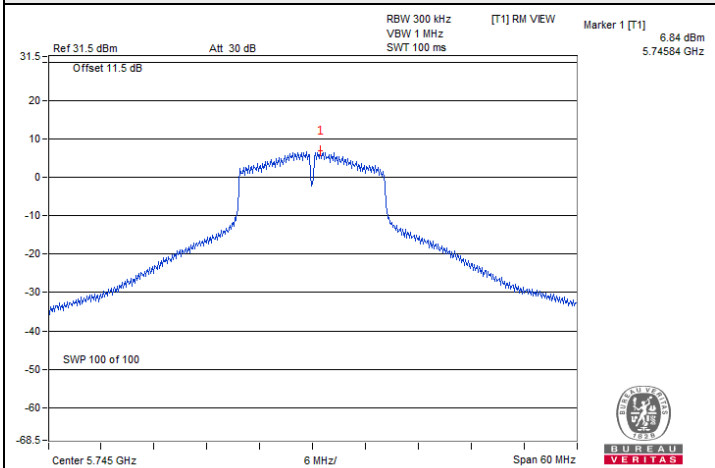
1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.27 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.27 - 6) = 29.73$ dBm/500kHz.

Spectrum Plot of Maximum Value

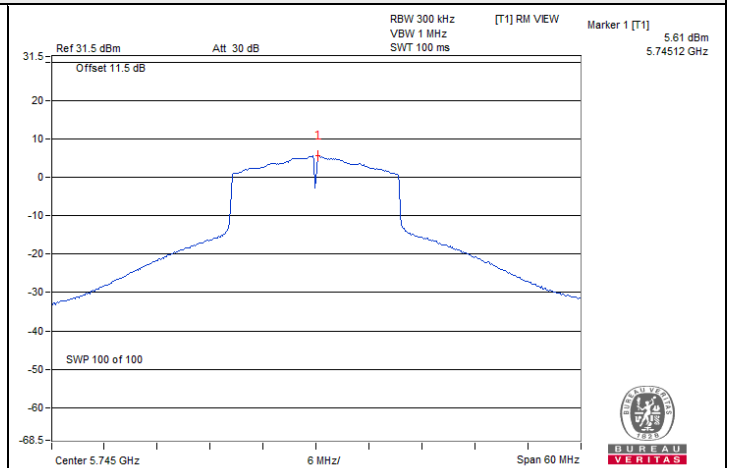




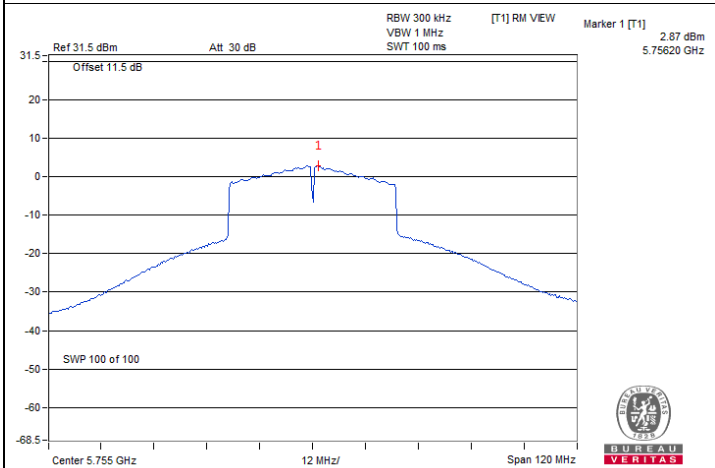
Spectrum Plot of Maximum Value



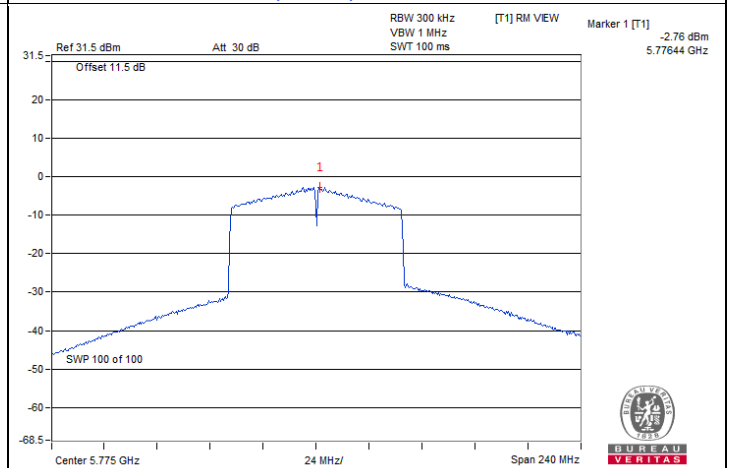
802.11a / Chain1 : CH 149



802.11ax (HE20) / Chain1 : CH 149



802.11ax (HE40) / Chain1 : CH 151



802.11ax (HE80) / Chain1 : CH 155

7.4 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.55	2.47	0.5	Pass
149	5745	15.13	15.13	0.5	Pass
157	5785	15.13	15.15	0.5	Pass
165	5825	15.17	15.18	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	4.25	3.30	0.5	Pass
149	5745	17.29	15.35	0.5	Pass
157	5785	16.64	15.06	0.5	Pass
165	5825	17.18	15.15	0.5	Pass

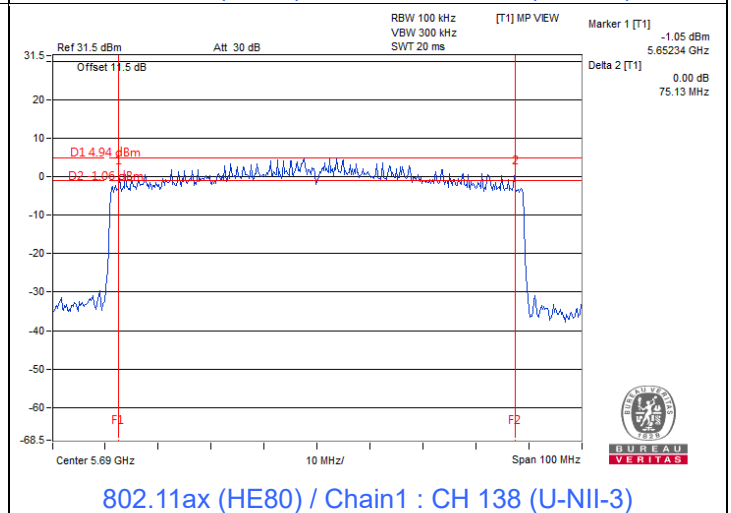
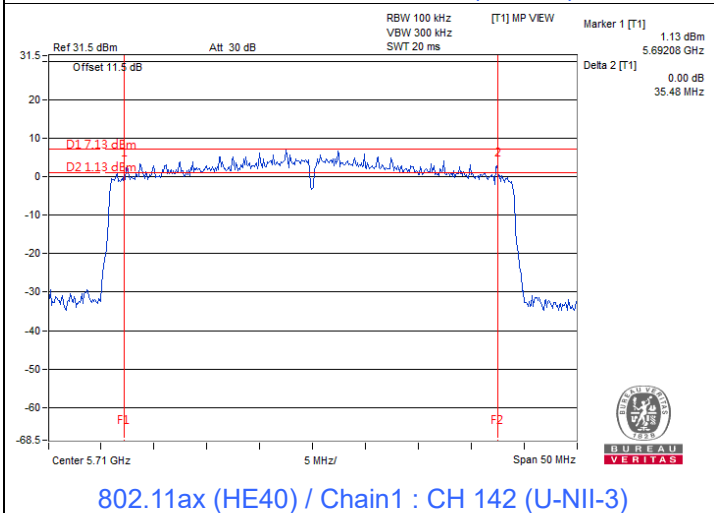
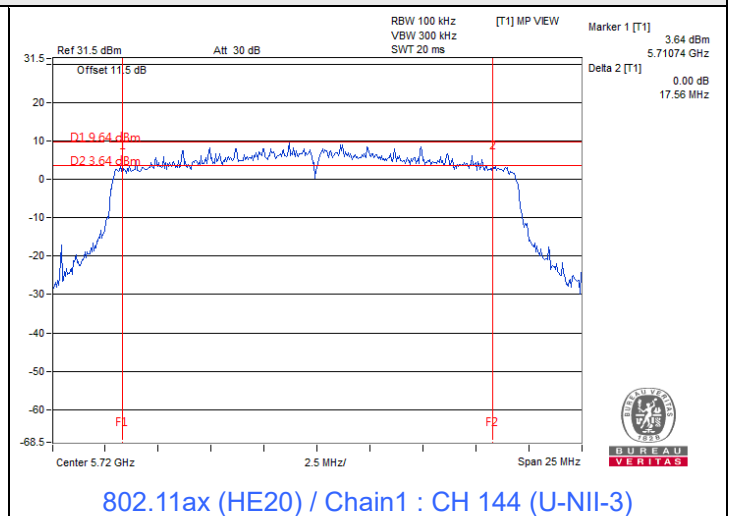
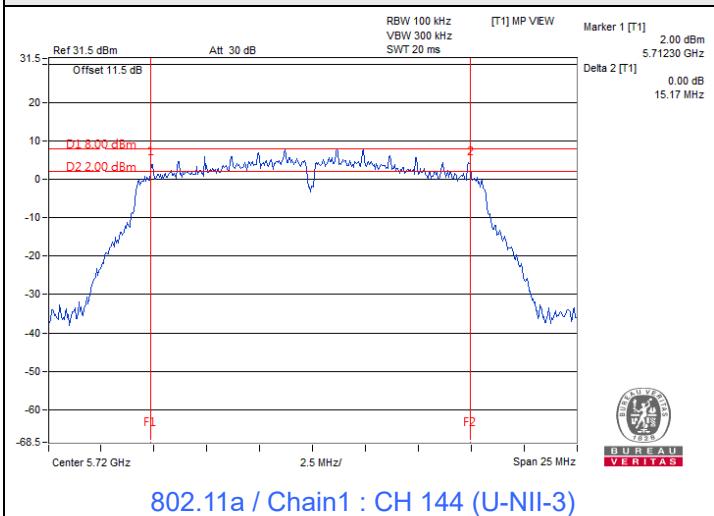
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
142 (U-NII-3)	5710	3.45	2.56	0.5	Pass
151	5755	36.76	35.09	0.5	Pass
159	5795	36.84	35.79	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
138 (U-NII-3)	5690	2.68	2.47	0.5	Pass
155	5775	75.52	75.31	0.5	Pass

Spectrum Plot of Minimum Value



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:	Chris Lin
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.68	16.44
40	5200	17.52	17.16
48	5240	17.76	17.52
52	5260	16.56	16.44
60	5300	16.56	16.44
64	5320	16.56	16.44
100	5500	16.44	16.56
116	5580	16.56	16.44
140	5700	16.44	16.56
144 (U-NII-2C)	5720	13.40	13.40
144 (U-NII-3)	5720	3.16	3.04
149	5745	23.88	21.73
157	5785	24.36	24.03
165	5825	26.16	26.06

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.96	18.96
40	5200	19.44	19.32
48	5240	19.08	19.44
52	5260	18.96	19.08
60	5300	18.96	18.84
64	5320	19.08	18.96
100	5500	18.96	18.84
116	5580	18.96	18.96
140	5700	18.96	18.96
144 (U-NII-2C)	5720	14.60	14.60
144 (U-NII-3)	5720	4.36	4.36
149	5745	25.32	22.79
157	5785	27.36	24.42
165	5825	29.04	27.50

802.11ax (HE40)

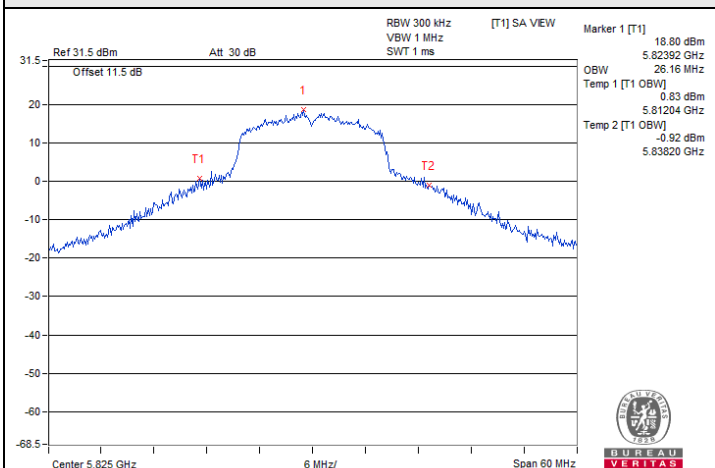
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	37.44	37.92
46	5230	38.40	38.64
54	5270	37.68	37.92
62	5310	37.68	37.92
102	5510	37.68	37.92
110	5550	37.68	37.69
134	5670	37.68	37.92
142 (U-NII-2C)	5710	33.96	33.96
142 (U-NII-3)	5710	3.72	3.72
151	5755	53.76	48.26
159	5795	53.52	53.85

802.11ax (HE80)

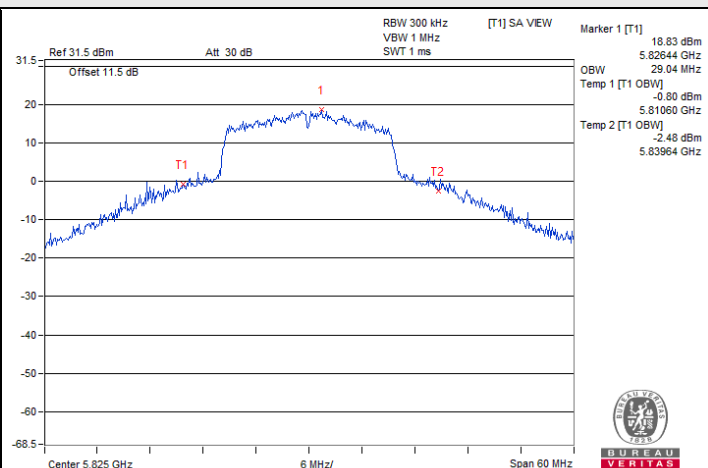
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	76.80	76.80
58	5290	76.80	76.80
106	5530	76.80	76.93
122	5610	76.32	76.80
138 (U-NII-2C)	5690	73.40	73.88
138 (U-NII-3)	5690	3.40	3.40
155	5775	77.76	77.70



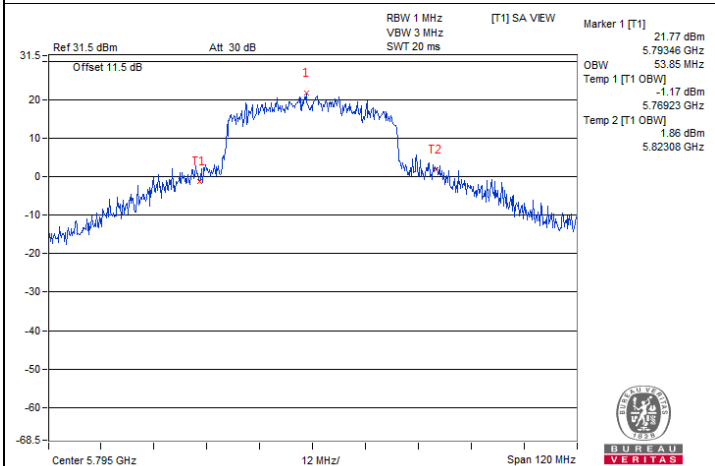
Spectrum Plot of Maximum Value



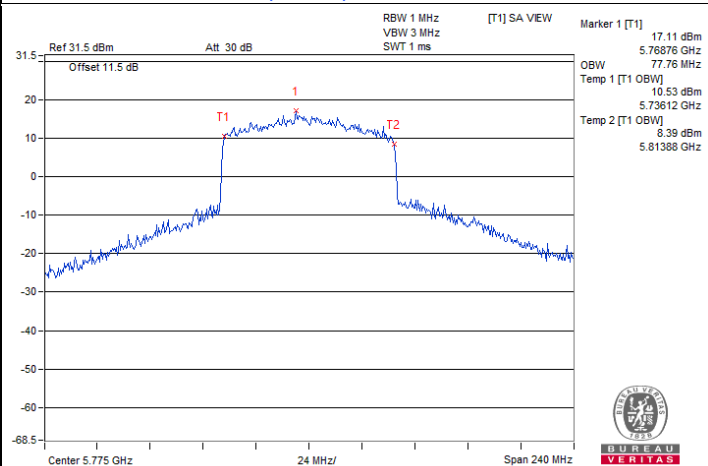
802.11a / Chain0 : CH 165



802.11ax (HE20) / Chain0 : CH 165

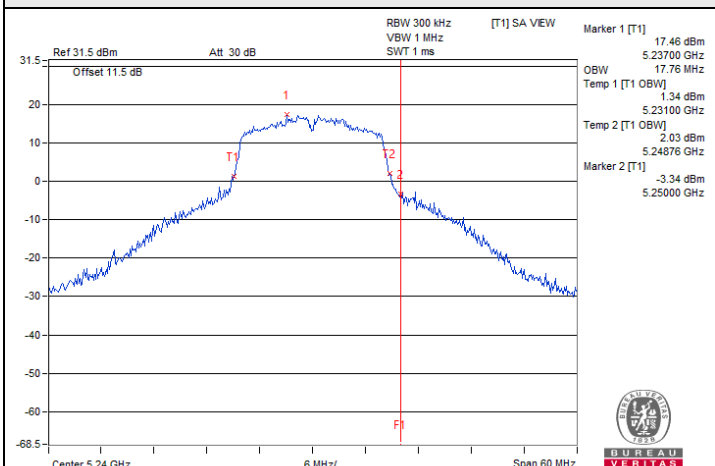


802.11ax (HE40) / Chain1 : CH 159

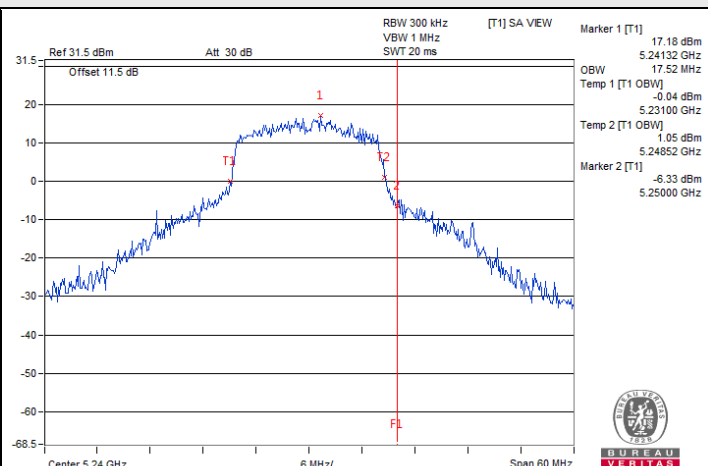


802.11ax (HE80) / Chain0 : CH 155

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

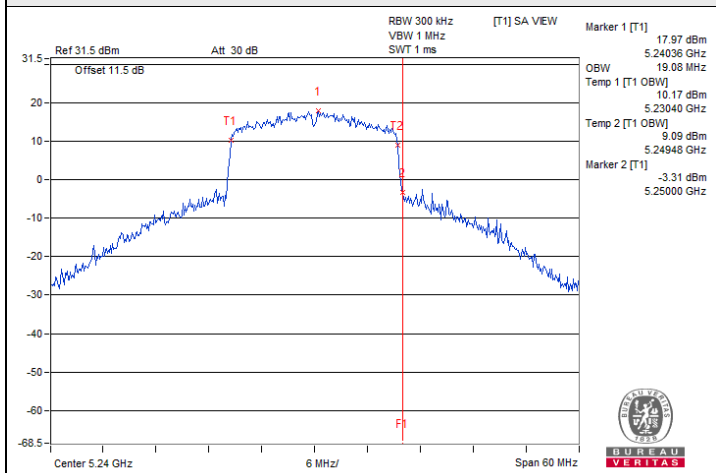


802.11a / Chain 0 : CH 48

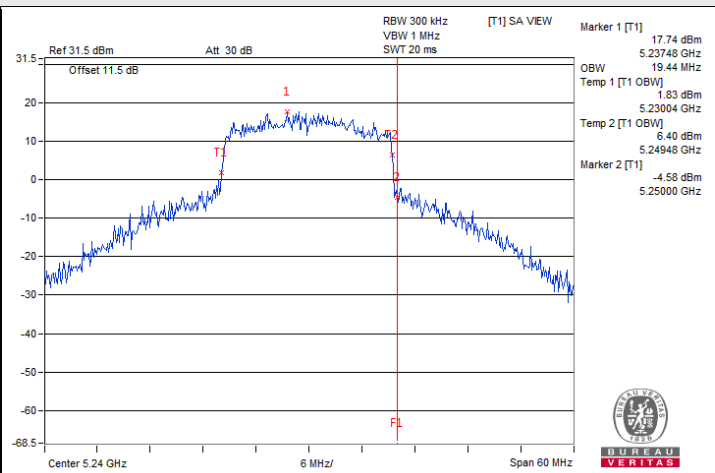


802.11a / Chain 1 : CH 48

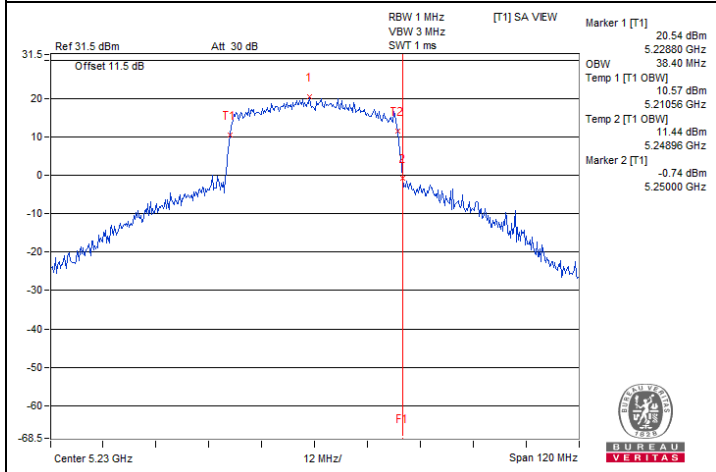
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



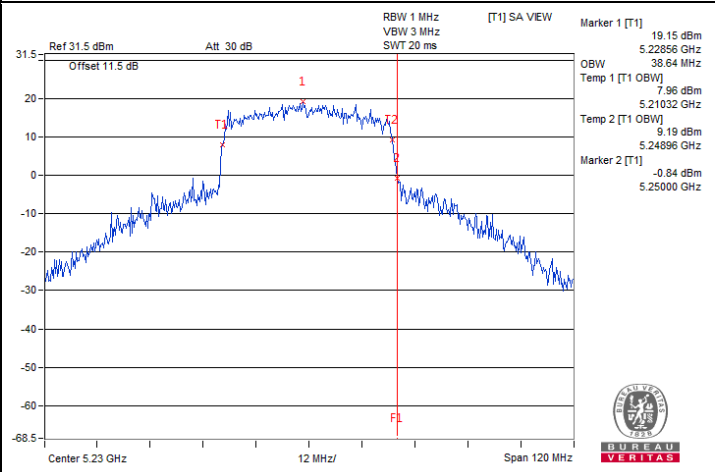
802.11ax (HE20) / Chain 0 : CH 48



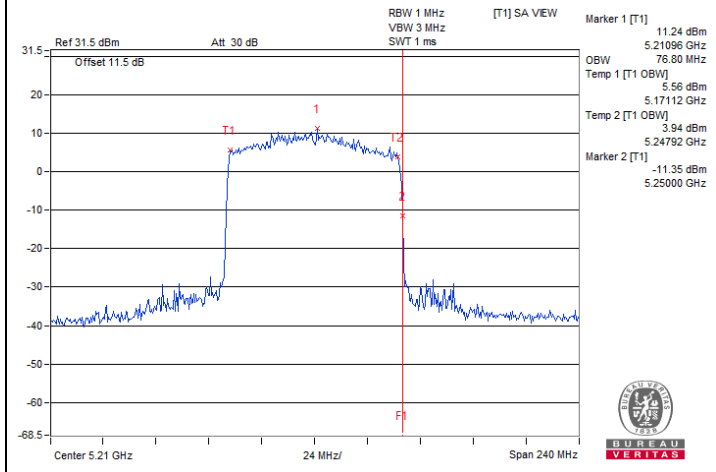
802.11ax (HE20) / Chain 1 : CH 48



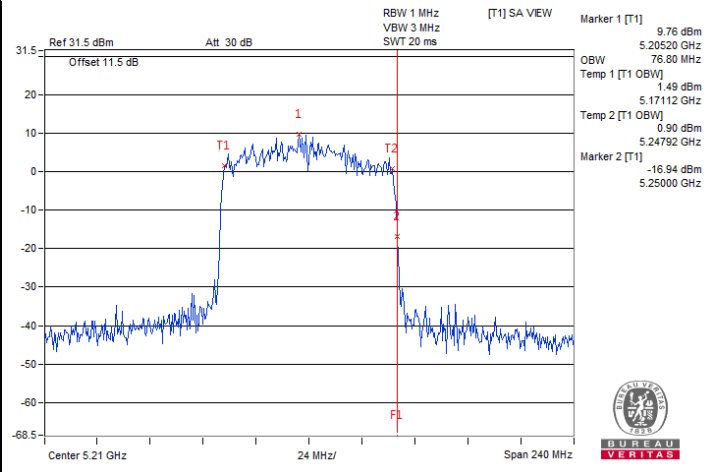
802.11ax (HE40) / Chain 0 : CH 46



802.11ax (HE40) / Chain 1 : CH 46

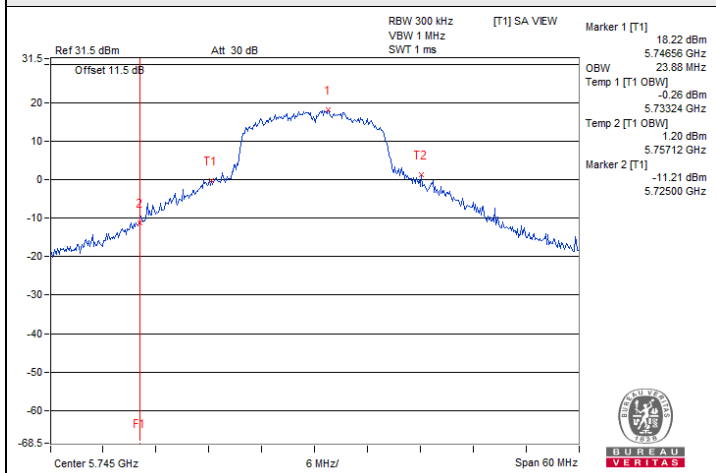


802.11ax (HE80) / Chain 0 : CH 42

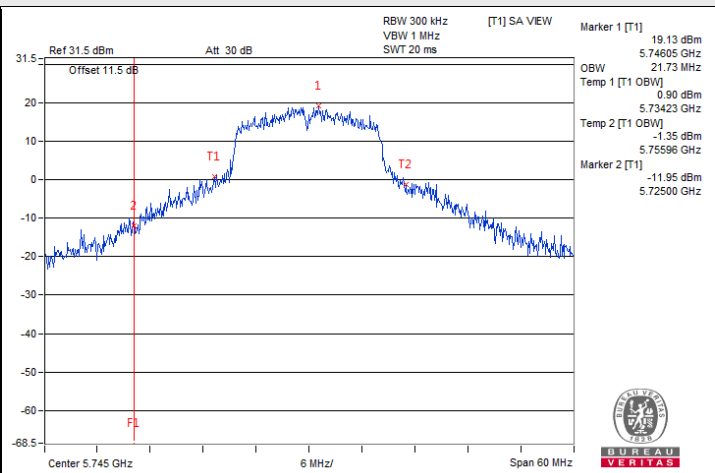


802.11ax (HE80) / Chain 1 : CH 42

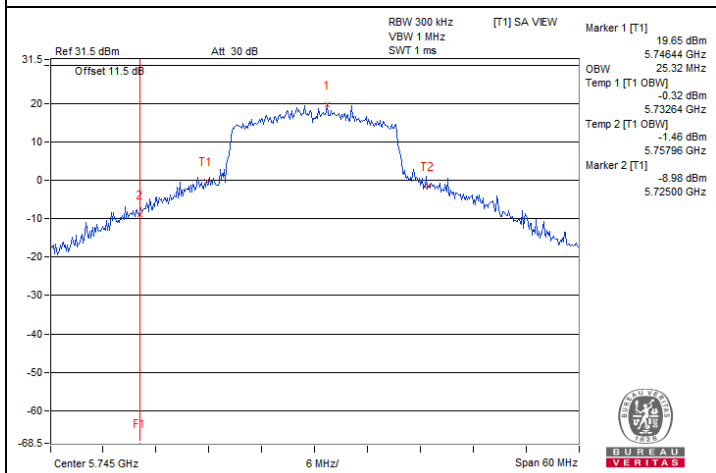
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C band)



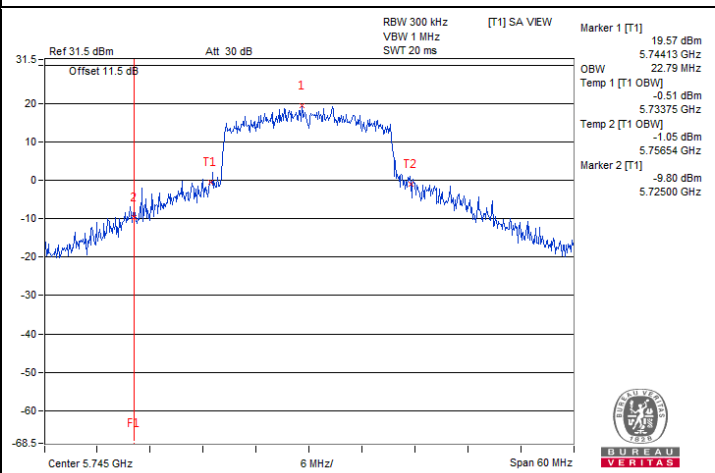
802.11a / Chain 0 : CH 149



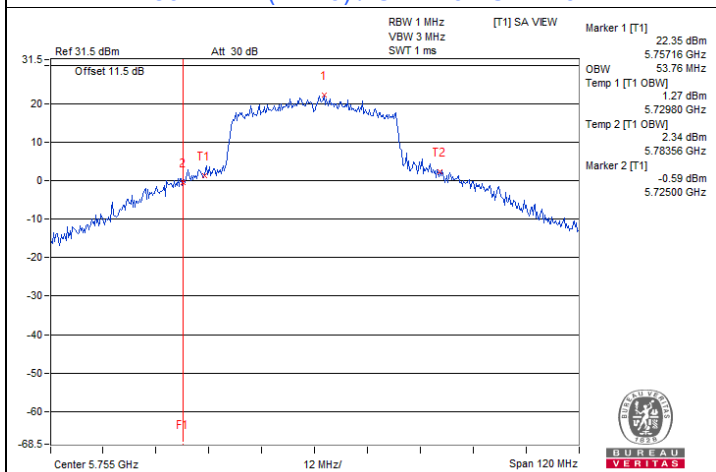
802.11a / Chain 1 : CH 149



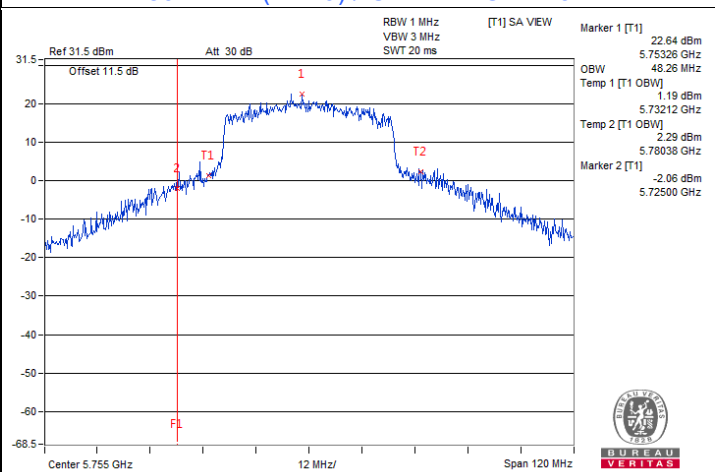
802.11ax (HE20) / Chain 0 : CH 149



802.11ax (HE20) / Chain 1 : CH 149



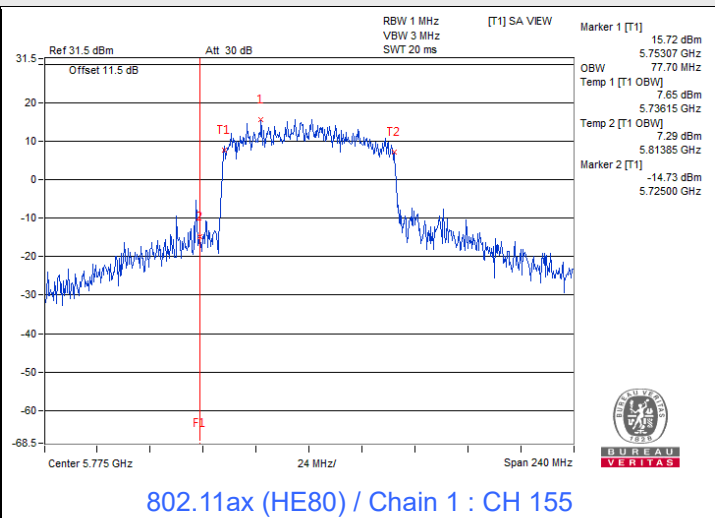
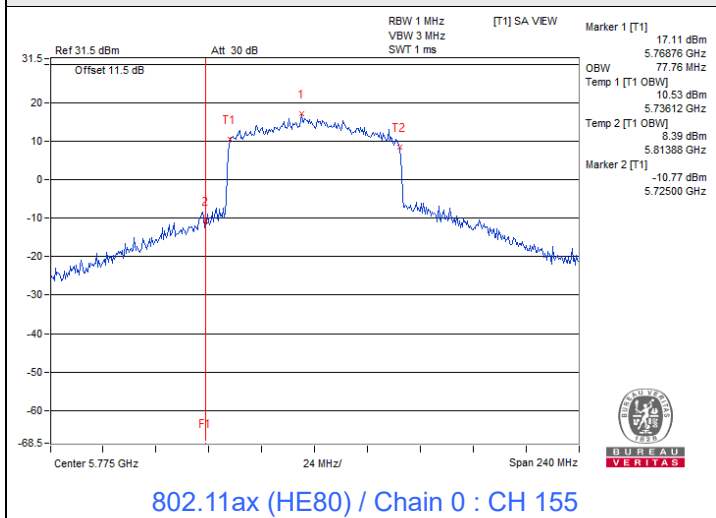
802.11ax (HE40) / Chain 0 : CH 151



802.11ax (HE40) / Chain 1 : CH 151



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



7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	5180.0056	Pass	5180.0045	Pass	5180.0065	Pass	5180.0056	Pass
30	120	5179.9919	Pass	5179.993	Pass	5179.9912	Pass	5179.9912	Pass
20	120	5179.9878	Pass	5179.9853	Pass	5179.9875	Pass	5179.9846	Pass
10	120	5180.0054	Pass	5180.0072	Pass	5180.0057	Pass	5180.0062	Pass
0	120	5180.0223	Pass	5180.022	Pass	5180.0214	Pass	5180.0232	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	5179.993	Pass	5179.9952	Pass	5179.9925	Pass	5179.993	Pass
	120	5179.9878	Pass	5179.9853	Pass	5179.9875	Pass	5179.9846	Pass
	102	5179.9807	Pass	5179.981	Pass	5179.9825	Pass	5179.9795	Pass

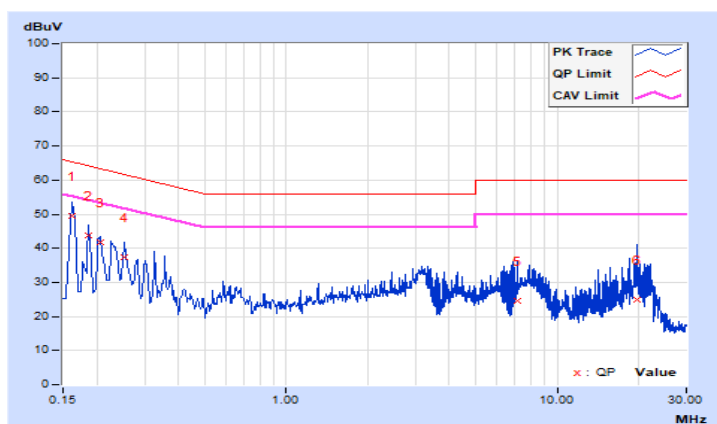
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 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	0.16200	9.69	39.84	19.62	49.53	29.31	65.36	55.36	-15.83	-26.05
2	0.18600	9.71	34.03	16.43	43.74	26.14	64.21	54.21	-20.47	-28.07
3	0.20523	9.72	32.17	15.94	41.89	25.66	63.40	53.40	-21.51	-27.74
4	0.25400	9.74	27.70	15.46	37.44	25.20	61.63	51.63	-24.19	-26.43
5	7.13800	10.01	14.69	7.65	24.70	17.66	60.00	50.00	-35.30	-32.34
6	19.74200	10.16	14.79	5.62	24.95	15.78	60.00	50.00	-35.05	-34.22

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

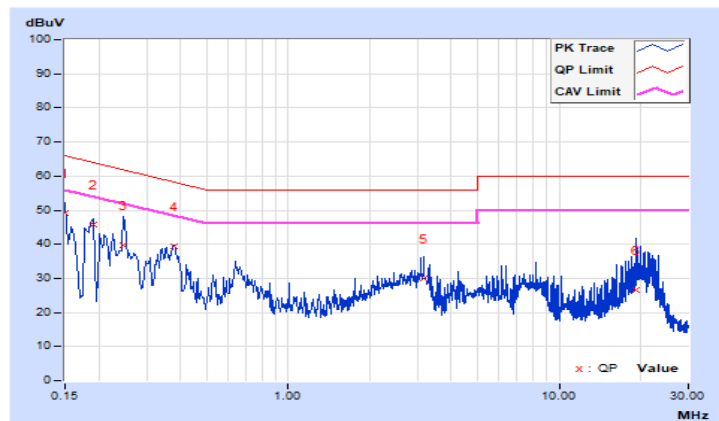


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	39.58	27.18	49.26	36.86	66.00	56.00	-16.74	-19.14
2	0.19000	9.71	35.95	19.38	45.66	29.09	64.04	54.04	-18.38	-24.95
3	0.24600	9.74	30.12	22.19	39.86	31.93	61.89	51.89	-22.03	-19.96
4	0.37800	9.80	29.48	23.23	39.28	33.03	58.32	48.32	-19.04	-15.29
5	3.15800	9.95	19.95	12.58	29.90	22.53	56.00	46.00	-26.10	-23.47
6	19.34200	10.19	16.48	6.64	26.67	16.83	60.00	50.00	-33.33	-33.17

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

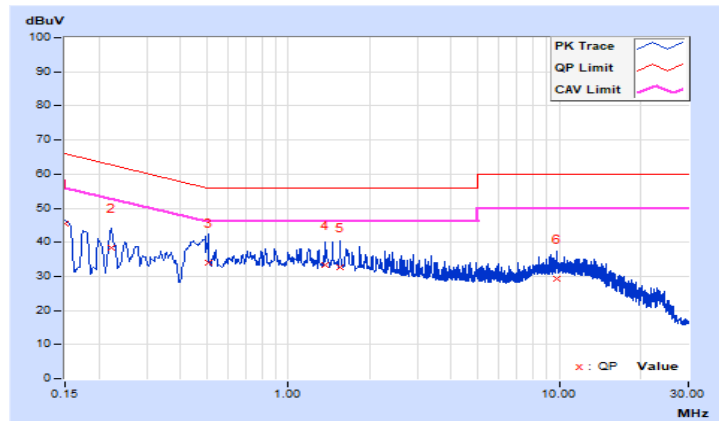


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	0.15000	9.68	35.61	23.28	45.29	32.96	66.00	56.00	-20.71	-23.04
2	0.22200	9.73	28.51	19.66	38.24	29.39	62.74	52.74	-24.50	-23.35
3	0.50600	9.81	24.08	20.67	33.89	30.48	56.00	46.00	-22.11	-15.52
4	1.36200	9.86	23.51	20.34	33.37	30.20	56.00	46.00	-22.63	-15.80
5	1.55000	9.87	22.81	19.61	32.68	29.48	56.00	46.00	-23.32	-16.52
6	9.75400	10.06	19.25	14.86	29.31	24.92	60.00	50.00	-30.69	-25.08

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

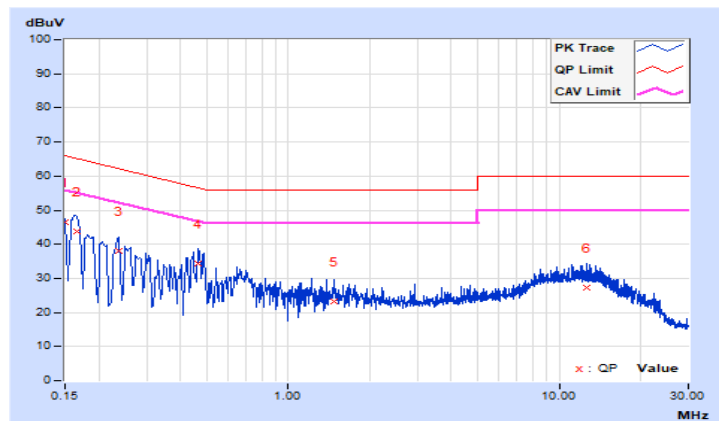


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	0.15000	9.68	36.63	21.42	46.31	31.10	66.00	56.00	-19.69	-24.90
2	0.16600	9.69	34.06	19.04	43.75	28.73	65.16	55.16	-21.41	-26.43
3	0.23723	9.74	28.24	15.17	37.98	24.91	62.19	52.19	-24.21	-27.28
4	0.46600	9.82	24.64	17.07	34.46	26.89	56.58	46.58	-22.12	-19.69
5	1.47800	9.89	13.39	6.51	23.28	16.40	56.00	46.00	-32.72	-29.60
6	12.57400	10.10	17.31	12.52	27.41	22.62	60.00	50.00	-32.59	-27.38

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

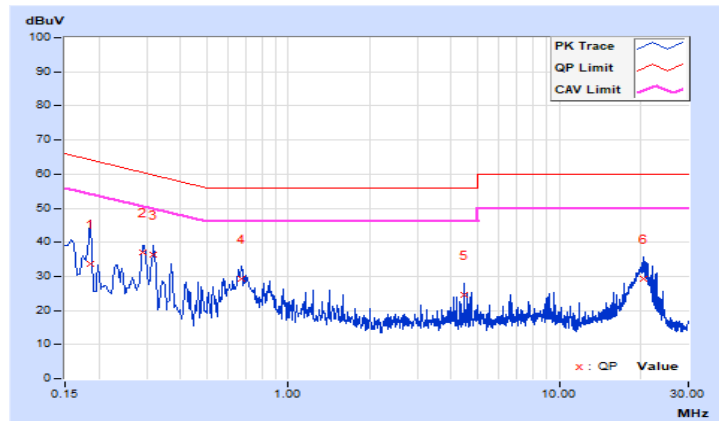


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	0.18600	9.71	23.93	13.73	33.64	23.44	64.21	54.21	-30.57	-30.77
2	0.29059	9.76	27.19	22.04	36.95	31.80	60.51	50.51	-23.56	-18.71
3	0.31800	9.77	26.64	20.00	36.41	29.77	59.76	49.76	-23.35	-19.99
4	0.66987	9.82	19.61	13.30	29.43	23.12	56.00	46.00	-26.57	-22.88
5	4.47000	9.96	14.53	1.28	24.49	11.24	56.00	46.00	-31.51	-34.76
6	20.42200	10.16	19.07	12.06	29.23	22.22	60.00	50.00	-30.77	-27.78

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

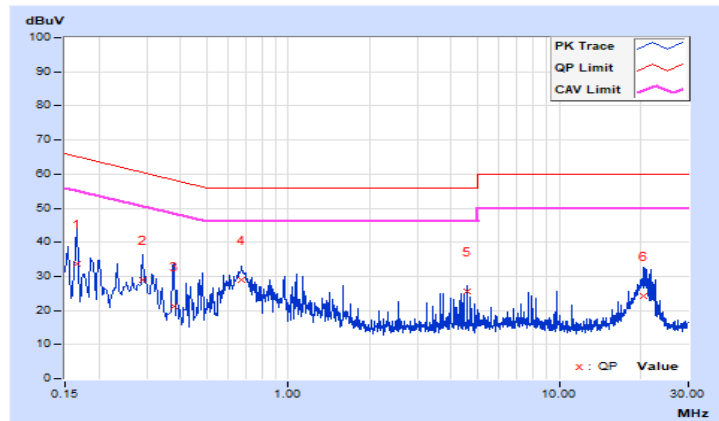


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	0.16600	9.69	23.95	9.14	33.64	18.83	65.16	55.16	-31.52	-36.33
2	0.29000	9.76	19.30	14.79	29.06	24.55	60.52	50.52	-31.46	-25.97
3	0.37800	9.80	11.55	1.85	21.35	11.65	58.32	48.32	-36.97	-36.67
4	0.67400	9.83	19.27	13.16	29.10	22.99	56.00	46.00	-26.90	-23.01
5	4.57400	9.98	15.47	1.57	25.45	11.55	56.00	46.00	-30.55	-34.45
6	20.43000	10.20	14.08	8.17	24.28	18.37	60.00	50.00	-35.72	-31.63

Remarks:

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

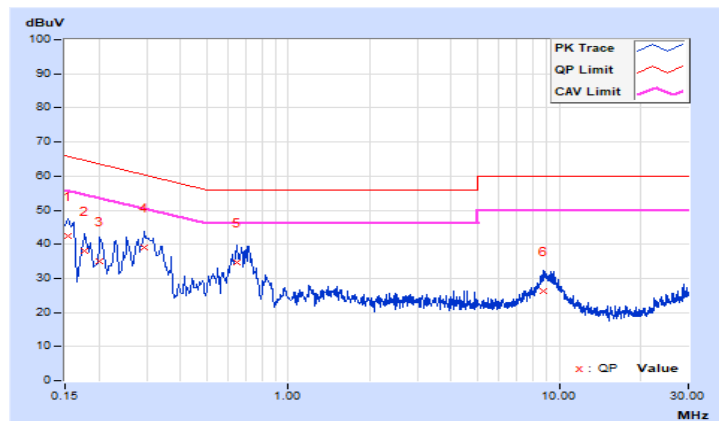


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	0.15400	9.68	32.72	17.09	42.40	26.77	65.78	55.78	-23.38	-29.01
2	0.17800	9.70	28.22	14.50	37.92	24.20	64.58	54.58	-26.66	-30.38
3	0.20200	9.72	25.24	11.81	34.96	21.53	63.53	53.53	-28.57	-32.00
4	0.29400	9.76	29.42	20.90	39.18	30.66	60.41	50.41	-21.23	-19.75
5	0.64561	9.82	24.95	15.94	34.77	25.76	56.00	46.00	-21.23	-20.24
6	8.77400	10.04	16.13	10.59	26.17	20.63	60.00	50.00	-33.83	-29.37

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

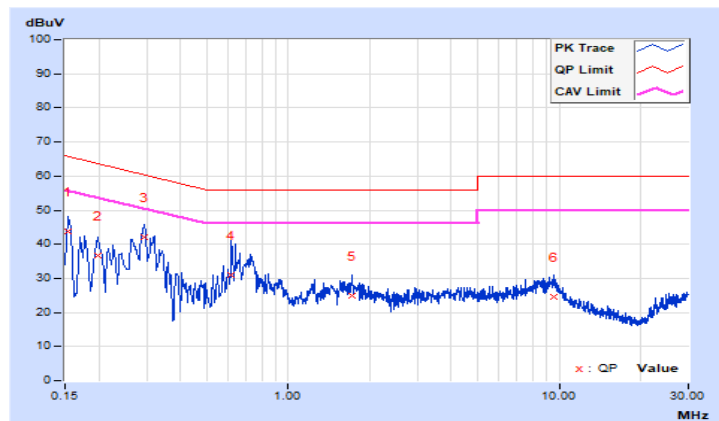


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	0.15400	9.68	34.09	15.79	43.77	25.47	65.78	55.78	-22.01	-30.31
2	0.19780	9.72	26.92	11.41	36.64	21.13	63.70	53.70	-27.06	-32.57
3	0.29400	9.76	32.41	20.20	42.17	29.96	60.41	50.41	-18.24	-20.45
4	0.61800	9.83	21.15	9.50	30.98	19.33	56.00	46.00	-25.02	-26.67
5	1.73000	9.90	14.98	7.54	24.88	17.44	56.00	46.00	-31.12	-28.56
6	9.60200	10.05	14.47	8.77	24.52	18.82	60.00	50.00	-35.48	-31.18

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



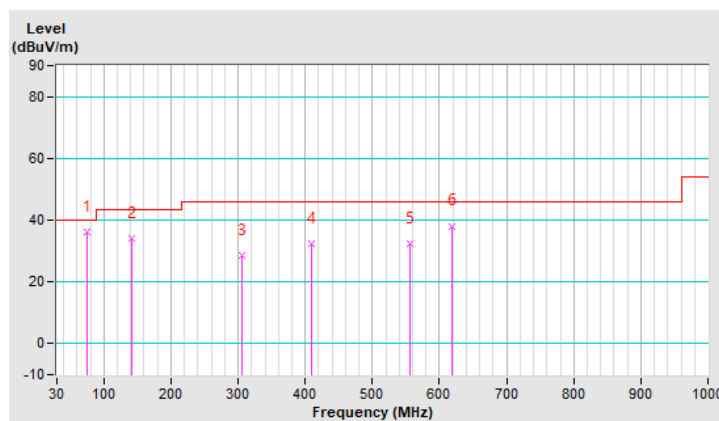
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 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	36.3 QP	40.0	-3.7	1.00 H	39	47.8	-11.5
2	140.58	33.9 QP	43.5	-9.6	1.00 H	99	42.9	-9.0
3	305.48	28.6 QP	46.0	-17.4	1.50 H	160	35.8	-7.2
4	410.24	32.3 QP	46.0	-13.7	1.00 H	6	38.0	-5.7
5	555.74	32.2 QP	46.0	-13.8	1.50 H	22	35.4	-3.2
6	617.82	38.1 QP	46.0	-7.9	1.50 H	160	39.4	-1.3

Remarks:

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

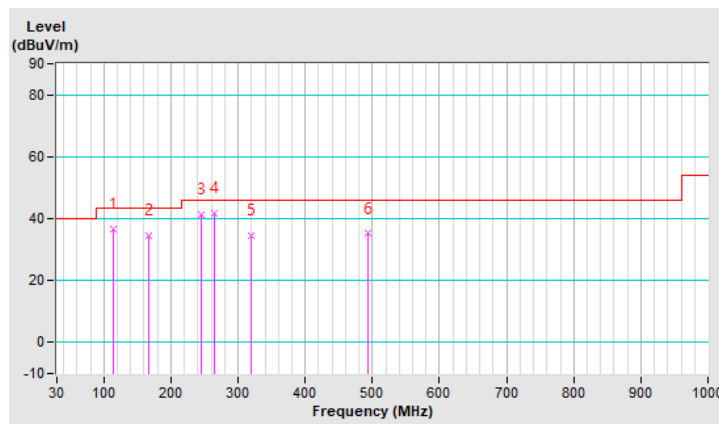


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	113.42	36.7 QP	43.5	-6.8	1.48 V	183	48.1	-11.4
2	167.74	34.4 QP	43.5	-9.1	1.01 V	136	43.2	-8.8
3	245.34	41.4 QP	46.0	-4.6	1.01 V	126	50.7	-9.3
4	264.74	41.8 QP	46.0	-4.2	1.01 V	163	50.4	-8.6
5	319.06	34.5 QP	46.0	-11.5	1.01 V	176	41.5	-7.0
6	493.66	35.1 QP	46.0	-10.9	1.01 V	157	39.5	-4.4

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.

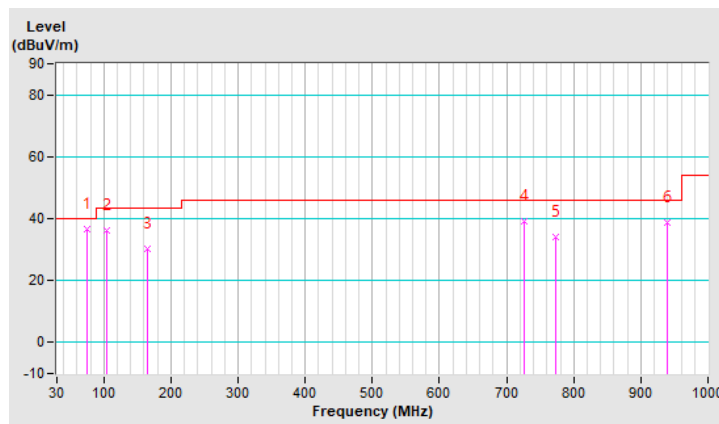


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	36.4 QP	40.0	-3.6	1.00 H	240	47.9	-11.5
2	103.72	36.2 QP	43.5	-7.3	1.00 H	276	48.9	-12.7
3	165.80	30.2 QP	43.5	-13.3	1.49 H	5	38.9	-8.7
4	726.46	39.0 QP	46.0	-7.0	1.49 H	310	38.1	0.9
5	773.02	34.0 QP	46.0	-12.0	1.00 H	87	31.7	2.3
6	939.86	38.8 QP	46.0	-7.2	1.49 H	89	32.8	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.

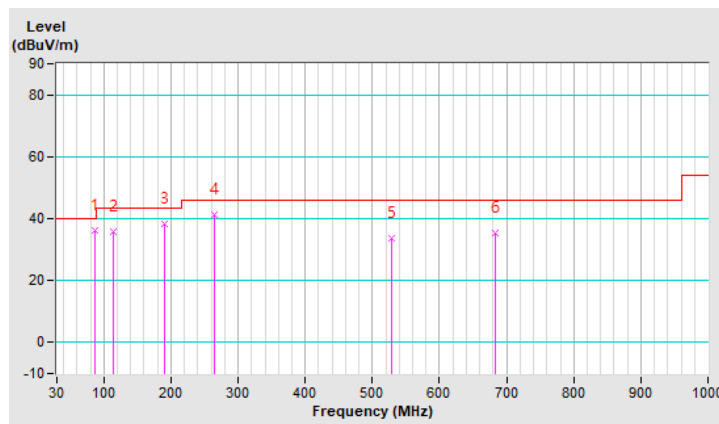


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	86.26	36.1 QP	40.0	-3.9	1.01 V	76	50.3	-14.2
2	113.42	35.9 QP	43.5	-7.6	1.01 V	174	47.3	-11.4
3	191.02	38.1 QP	43.5	-5.4	1.01 V	81	49.2	-11.1
4	264.74	41.2 QP	46.0	-4.8	1.01 V	116	49.8	-8.6
5	528.58	33.7 QP	46.0	-12.3	1.01 V	40	37.4	-3.7
6	683.78	35.4 QP	46.0	-10.6	1.01 V	109	35.8	-0.4

Remarks:

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



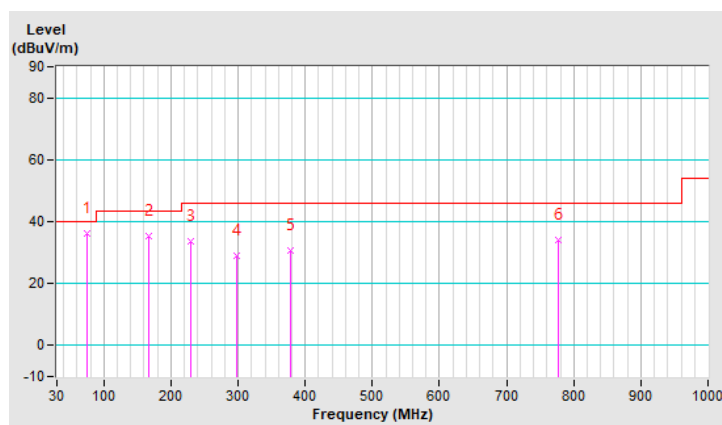
RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	36.3 QP	40.0	-3.7	1.00 H	192	47.8	-11.5
2	167.74	35.5 QP	43.5	-8.0	1.49 H	162	44.3	-8.8
3	229.82	33.5 QP	46.0	-12.5	1.00 H	92	44.5	-11.0
4	297.72	29.0 QP	46.0	-17.0	1.49 H	161	36.6	-7.6
5	377.26	30.5 QP	46.0	-15.5	1.49 H	24	36.6	-6.1
6	776.90	34.0 QP	46.0	-12.0	1.00 H	118	31.6	2.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit 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.

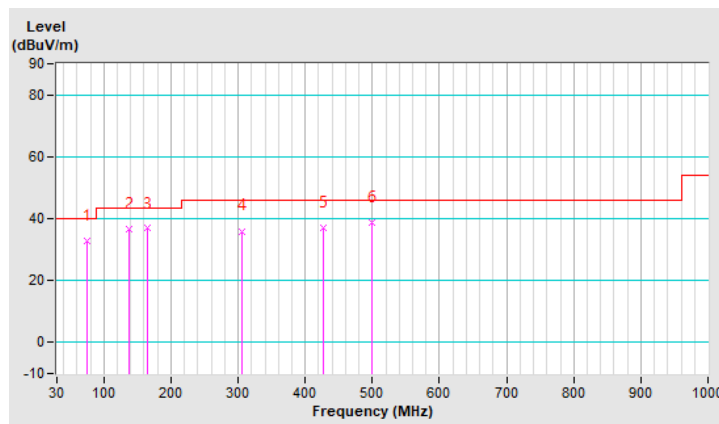


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	74.62	33.0 QP	40.0	-7.0	1.01 V	18	44.5	-11.5
2	136.70	36.5 QP	43.5	-7.0	1.49 V	64	45.8	-9.3
3	165.80	36.8 QP	43.5	-6.7	1.01 V	152	45.5	-8.7
4	305.48	36.0 QP	46.0	-10.0	1.49 V	153	43.2	-7.2
5	427.70	36.9 QP	46.0	-9.1	1.49 V	6	42.1	-5.2
6	499.48	38.7 QP	46.0	-7.3	1.01 V	22	42.9	-4.2

Remarks:

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

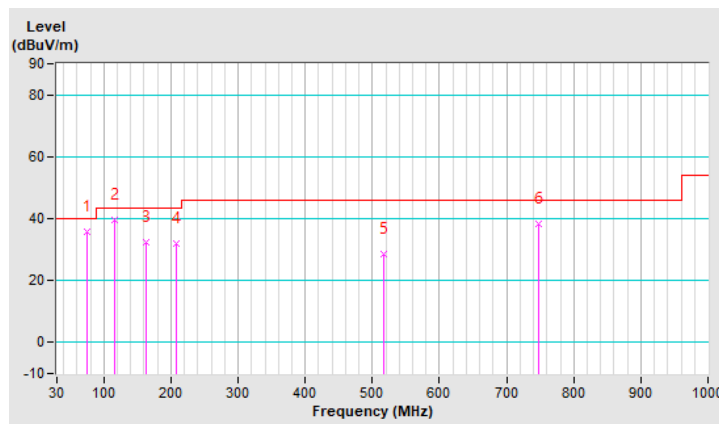


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	35.8 QP	40.0	-4.2	1.00 H	309	47.3	-11.5
2	115.36	39.6 QP	43.5	-3.9	1.50 H	132	50.9	-11.3
3	163.86	32.3 QP	43.5	-11.2	1.50 H	79	41.0	-8.7
4	208.48	32.1 QP	43.5	-11.4	1.50 H	142	43.4	-11.3
5	516.94	28.7 QP	46.0	-17.3	1.50 H	221	32.6	-3.9
6	747.80	38.4 QP	46.0	-7.6	1.50 H	290	36.7	1.7

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 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.

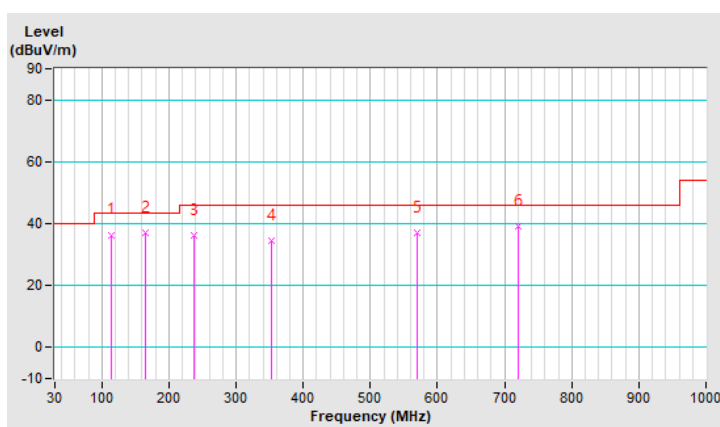


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	113.42	36.4 QP	43.5	-7.1	1.49 V	180	47.8	-11.4
2	165.80	37.2 QP	43.5	-6.3	1.49 V	161	45.9	-8.7
3	237.58	36.3 QP	46.0	-9.7	1.49 V	163	46.1	-9.8
4	352.04	34.4 QP	46.0	-11.6	1.49 V	147	41.2	-6.8
5	569.32	36.9 QP	46.0	-9.1	1.49 V	159	39.8	-2.9
6	720.64	39.3 QP	46.0	-6.7	1.00 V	325	38.9	0.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The 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 = 1 kHz
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	71.6 PK	74.0	-2.4	1.50 H	9	59.0	12.6
2	5150.00	53.1 AV	54.0	-0.9	1.50 H	9	40.5	12.6
3	*5180.00	120.1 PK			1.50 H	9	77.4	42.7
4	*5180.00	110.6 AV			1.50 H	9	67.9	42.7
5	#10360.00	62.0 PK	68.2	-6.2	1.92 H	225	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	4874.00	62.2 PK	74.0	-11.8	1.41 V	3	50.3	11.9
2	4874.00	53.0 AV	54.0	-1.0	1.41 V	3	41.1	11.9
3	5150.00	72.0 PK	74.0	-2.0	1.41 V	3	59.4	12.6
4	5150.00	53.4 AV	54.0	-0.6	1.41 V	3	40.8	12.6
5	*5180.00	120.6 PK			1.41 V	3	77.9	42.7
6	*5180.00	111.1 AV			1.41 V	3	68.4	42.7
7	#10360.00	62.7 PK	68.2	-5.5	2.15 V	311	40.2	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 = 1 kHz
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	64.8 PK	74.0	-9.2	1.52 H	10	52.2	12.6
2	5150.00	51.2 AV	54.0	-2.8	1.52 H	10	38.6	12.6
3	*5200.00	122.8 PK			1.52 H	10	80.3	42.5
4	*5200.00	112.5 AV			1.52 H	10	70.0	42.5
5	#10400.00	61.3 PK	68.2	-6.9	1.82 H	229	38.6	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	4873.00	64.8 PK	74.0	-9.2	1.85 V	330	52.9	11.9
2	4873.00	51.0 AV	54.0	-3.0	1.85 V	330	39.1	11.9
3	*5200.00	123.2 PK			1.85 V	330	80.7	42.5
4	*5200.00	112.9 AV			1.85 V	330	70.4	42.5
5	#10400.00	61.5 PK	68.2	-6.7	1.67 V	205	38.8	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 802.11a	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 = 1 kHz
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	61.3 PK	74.0	-12.7	1.50 H	16	48.7	12.6
2	5150.00	48.6 AV	54.0	-5.4	1.50 H	16	36.0	12.6
3	*5240.00	122.0 PK			1.50 H	16	79.6	42.4
4	*5240.00	112.4 AV			1.50 H	16	70.0	42.4
5	5350.00	60.4 PK	74.0	-13.6	1.50 H	16	48.0	12.4
6	5350.00	12.4 AV	54.0	-41.6	1.50 H	16	0.0	12.4
7	#10480.00	62.1 PK	68.2	-6.1	1.92 H	229	39.5	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	4873.00	61.2 PK	74.0	-12.8	1.78 V	331	49.3	11.9
2	4873.00	50.1 AV	54.0	-3.9	1.78 V	331	38.2	11.9
3	*5240.00	123.1 PK			1.78 V	331	80.7	42.4
4	*5240.00	112.8 AV			1.78 V	331	70.4	42.4
5	5350.00	61.5 PK	74.0	-12.5	1.78 V	331	49.1	12.4
6	5350.00	48.4 AV	54.0	-5.6	1.78 V	331	36.0	12.4
7	#10480.00	63.3 PK	68.2	-4.9	1.33 V	228	40.7	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 = 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	61.1 PK	74.0	-12.9	1.32 H	11	48.5	12.6
2	5150.00	48.4 AV	54.0	-5.6	1.32 H	11	35.8	12.6
3	*5260.00	121.9 PK			1.32 H	11	79.5	42.4
4	*5260.00	112.4 AV			1.32 H	11	70.0	42.4
5	#10520.00	62.3 PK	68.2	-5.9	1.95 H	229	39.8	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	62.4 PK	74.0	-11.6	1.53 V	303	49.8	12.6
2	5150.00	49.3 AV	54.0	-4.7	1.53 V	303	36.7	12.6
3	*5260.00	122.9 PK			1.53 V	303	80.5	42.4
4	*5260.00	113.5 AV			1.53 V	303	71.1	42.4
5	#10520.00	62.9 PK	68.2	-5.3	2.21 V	305	40.4	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 = 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	*5300.00	121.3 PK			1.30 H	12	78.9	42.4
2	*5300.00	112.3 AV			1.30 H	12	69.9	42.4
3	10600.00	62.5 PK	74.0	-11.5	1.93 H	223	39.8	22.7
4	10600.00	48.9 AV	54.0	-5.1	1.93 H	223	26.2	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	122.8 PK			1.70 V	307	80.4	42.4
2	*5300.00	113.6 AV			1.70 V	307	71.2	42.4
3	10600.00	63.2 PK	74.0	-10.8	2.18 V	319	40.5	22.7
4	10600.00	49.3 AV	54.0	-4.7	2.18 V	319	26.6	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 = 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	*5320.00	119.6 PK			1.39 H	15	77.1	42.5
2	*5320.00	110.3 AV			1.39 H	15	67.8	42.5
3	5350.00	69.7 PK	74.0	-4.3	1.39 H	15	57.3	12.4
4	5350.00	52.6 AV	54.0	-1.4	1.39 H	15	40.2	12.4
5	10640.00	62.4 PK	74.0	-11.6	1.92 H	228	39.6	22.8
6	10640.00	49.0 AV	54.0	-5.0	1.92 H	228	26.2	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	121.3 PK			1.65 V	303	78.8	42.5
2	*5320.00	111.1 AV			1.65 V	303	68.6	42.5
3	5350.00	71.4 PK	74.0	-2.6	1.65 V	303	59.0	12.4
4	5350.00	53.7 AV	54.0	-0.3	1.65 V	303	41.3	12.4
5	10640.00	63.3 PK	74.0	-10.7	2.21 V	309	40.5	22.8
6	10640.00	49.3 AV	54.0	-4.7	2.21 V	309	26.5	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 802.11a	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 = 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	61.2 PK	74.0	-12.8	1.55 H	12	48.5	12.7
2	5460.00	47.8 AV	54.0	-6.2	1.55 H	12	35.1	12.7
3	#5470.00	67.5 PK	68.2	-0.7	1.55 H	12	54.8	12.7
4	*5500.00	118.4 PK			1.55 H	12	75.2	43.2
5	*5500.00	109.2 AV			1.55 H	12	66.0	43.2
6	11000.00	63.1 PK	74.0	-10.9	1.98 H	224	40.2	22.9
7	11000.00	49.1 AV	54.0	-4.9	1.98 H	224	26.2	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	62.0 PK	74.0	-12.0	1.62 V	296	49.3	12.7
2	5460.00	48.3 AV	54.0	-5.7	1.62 V	296	35.6	12.7
3	#5470.00	67.9 PK	68.2	-0.3	1.62 V	296	55.2	12.7
4	*5500.00	119.6 PK			1.62 V	296	76.4	43.2
5	*5500.00	109.6 AV			1.62 V	296	66.4	43.2
6	11000.00	63.4 PK	74.0	-10.6	2.23 V	319	40.5	22.9
7	11000.00	49.6 AV	54.0	-4.4	2.23 V	319	26.7	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 = 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	*5580.00	122.4 PK			1.58 H	11	79.3	43.1
2	*5580.00	113.1 AV			1.58 H	11	70.0	43.1
3	11160.00	63.3 PK	74.0	-10.7	1.95 H	216	40.2	23.1
4	11160.00	49.4 AV	54.0	-4.6	1.95 H	216	26.3	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	123.2 PK			1.65 V	328	80.1	43.1
2	*5580.00	113.8 AV			1.65 V	328	70.7	43.1
3	11160.00	63.8 PK	74.0	-10.2	2.25 V	322	40.7	23.1
4	11160.00	50.0 AV	54.0	-4.0	2.25 V	322	26.9	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 = 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	*5700.00	116.1 PK			1.56 H	11	73.0	43.1
2	*5700.00	106.3 AV			1.56 H	11	63.2	43.1
3	#5725.00	67.8 PK	68.2	-0.4	1.56 H	11	54.6	13.2
4	11400.00	63.8 PK	74.0	-10.2	1.92 H	221	39.8	24.0
5	11400.00	50.2 AV	54.0	-3.8	1.92 H	221	26.2	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	*5700.00	116.7 PK			1.71 V	305	73.6	43.1
2	*5700.00	106.6 AV			1.71 V	305	63.5	43.1
3	#5725.00	68.0 PK	68.2	-0.2	1.71 V	305	54.8	13.2
4	11400.00	64.2 PK	74.0	-9.8	2.25 V	321	40.2	24.0
5	11400.00	50.5 AV	54.0	-3.5	2.25 V	321	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 = 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	#5470.00	60.7 PK	68.2	-7.5	1.52 H	11	48.0	12.7
2	*5720.00	121.0 PK			1.52 H	11	77.6	43.4
3	*5720.00	112.0 AV			1.52 H	11	68.6	43.4
4	#5850.00	61.2 PK	68.2	-7.0	1.52 H	11	47.6	13.6
5	11440.00	64.2 PK	74.0	-9.8	1.85 H	221	40.2	24.0
6	11440.00	50.3 AV	54.0	-3.7	1.85 H	221	26.3	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	60.9 PK	68.2	-7.3	1.67 V	300	48.2	12.7
2	*5720.00	122.2 PK			1.67 V	300	78.8	43.4
3	*5720.00	112.6 AV			1.67 V	300	69.2	43.4
4	#5850.00	61.4 PK	68.2	-6.8	1.67 V	300	47.8	13.6
5	11440.00	64.5 PK	74.0	-9.5	2.21 V	328	40.5	24.0
6	11440.00	50.7 AV	54.0	-3.3	2.21 V	328	26.7	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 = 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	#5631.60	61.3 PK	68.2	-6.9	2.62 H	358	48.6	12.7
2	*5745.00	119.4 PK			2.62 H	358	75.8	43.6
3	*5745.00	110.7 AV			2.62 H	358	67.1	43.6
4	#5963.60	61.7 PK	68.2	-6.5	2.62 H	358	47.9	13.8
5	11490.00	64.8 PK	74.0	-9.2	2.91 H	143	40.8	24.0
6	11490.00	51.5 AV	54.0	-2.5	2.91 H	143	27.5	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	#5613.60	63.8 PK	68.2	-4.4	1.52 V	357	51.2	12.6
2	*5745.00	122.7 PK			1.52 V	357	79.1	43.6
3	*5745.00	113.4 AV			1.52 V	357	69.8	43.6
4	#5980.40	63.6 PK	68.2	-4.6	1.52 V	357	49.9	13.7
5	11490.00	65.0 PK	74.0	-9.0	1.52 V	213	41.0	24.0
6	11490.00	51.7 AV	54.0	-2.3	1.52 V	213	27.7	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 = 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	#5633.20	60.3 PK	68.2	-7.9	2.74 H	352	47.6	12.7
2	*5785.00	119.3 PK			2.74 H	352	75.5	43.8
3	*5785.00	110.0 AV			2.74 H	352	66.2	43.8
4	#5973.20	62.0 PK	68.2	-6.2	2.74 H	352	48.2	13.8
5	11570.00	64.5 PK	74.0	-9.5	2.75 H	148	40.7	23.8
6	11570.00	51.1 AV	54.0	-2.9	2.75 H	148	27.3	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	#5635.60	62.5 PK	68.2	-5.7	1.51 V	352	49.8	12.7
2	*5785.00	123.1 PK			1.51 V	352	79.3	43.8
3	*5785.00	113.7 AV			1.51 V	352	69.9	43.8
4	#5940.00	62.3 PK	68.2	-5.9	1.51 V	352	48.5	13.8
5	11570.00	64.7 PK	74.0	-9.3	1.56 V	12	40.9	23.8
6	11570.00	51.3 AV	54.0	-2.7	1.56 V	12	27.5	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 = 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	#5617.20	59.7 PK	68.2	-8.5	2.62 H	346	47.1	12.6
2	*5825.00	119.3 PK			2.62 H	346	75.3	44.0
3	*5825.00	110.6 AV			2.62 H	346	66.6	44.0
4	#5976.80	62.3 PK	68.2	-5.9	2.62 H	346	48.5	13.8
5	11650.00	64.0 PK	74.0	-10.0	2.84 H	156	40.7	23.3
6	11650.00	50.6 AV	54.0	-3.4	2.84 H	156	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	#5622.80	62.6 PK	68.2	-5.6	1.45 V	354	50.0	12.6
2	*5825.00	122.7 PK			1.45 V	354	78.7	44.0
3	*5825.00	113.3 AV			1.45 V	354	69.3	44.0
4	#5998.80	63.4 PK	68.2	-4.8	1.45 V	354	49.7	13.7
5	11650.00	64.2 PK	74.0	-9.8	1.44 V	36	40.9	23.3
6	11650.00	50.7 AV	54.0	-3.3	1.44 V	36	27.4	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 = 1 kHz
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	69.4 PK	74.0	-4.6	1.44 H	10	56.8	12.6
2	5150.00	53.3 AV	54.0	-0.7	1.44 H	10	40.7	12.6
3	*5180.00	120.7 PK			1.44 H	10	78.0	42.7
4	*5180.00	108.8 AV			1.44 H	10	66.1	42.7
5	#10360.00	62.0 PK	68.2	-6.2	1.92 H	235	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	5148.00	69.7 PK	74.0	-4.3	1.31 V	358	57.1	12.6
2	5148.00	53.5 AV	54.0	-0.5	1.31 V	358	40.9	12.6
3	*5180.00	121.4 PK			1.31 V	358	78.7	42.7
4	*5180.00	109.3 AV			1.31 V	358	66.6	42.7
5	#10360.00	62.6 PK	68.2	-5.6	2.15 V	200	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 802.11ax (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 = 1 kHz
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	70.2 PK	74.0	-3.8	1.44 H	5	57.6	12.6
2	5150.00	52.6 AV	54.0	-1.4	1.44 H	5	40.0	12.6
3	*5200.00	123.3 PK			1.44 H	5	80.8	42.5
4	*5200.00	111.8 AV			1.44 H	5	69.3	42.5
5	#10400.00	62.2 PK	68.2	-6.0	1.88 H	227	39.5	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	73.3 PK	74.0	-0.7	1.89 V	329	60.7	12.6
2	5150.00	53.4 AV	54.0	-0.6	1.89 V	329	40.8	12.6
3	*5200.00	124.9 PK			1.89 V	329	82.4	42.5
4	*5200.00	112.8 AV			1.89 V	329	70.3	42.5
5	#10400.00	62.8 PK	68.2	-5.4	1.35 V	62	40.1	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 = 1 kHz
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	61.3 PK	74.0	-12.7	1.49 H	7	48.7	12.6
2	5150.00	48.6 AV	54.0	-5.4	1.49 H	7	36.0	12.6
3	*5240.00	123.9 PK			1.49 H	7	81.5	42.4
4	*5240.00	111.4 AV			1.49 H	7	69.0	42.4
5	5350.00	60.4 PK	74.0	-13.6	1.49 H	7	48.0	12.4
6	5350.00	47.1 AV	54.0	-6.9	1.49 H	7	34.7	12.4
7	#10480.00	63.1 PK	68.2	-5.1	1.99 H	218	40.5	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	4873.00	60.6 PK	74.0	-13.4	1.88 V	328	48.7	11.9
2	4873.00	49.1 AV	54.0	-4.9	1.88 V	328	37.2	11.9
3	*5240.00	125.0 PK			1.88 V	328	82.6	42.4
4	*5240.00	112.3 AV			1.88 V	328	69.9	42.4
5	5350.00	61.4 PK	74.0	-12.6	1.88 V	328	49.0	12.4
6	5350.00	48.3 AV	54.0	-5.7	1.88 V	328	35.9	12.4
7	#10480.00	63.4 PK	68.2	-4.8	1.35 V	319	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 (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 = 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	60.6 PK	74.0	-13.4	1.44 H	15	48.0	12.6
2	5150.00	48.2 AV	54.0	-5.8	1.44 H	15	35.6	12.6
3	*5260.00	122.2 PK			1.44 H	15	79.8	42.4
4	*5260.00	111.0 AV			1.44 H	15	68.6	42.4
5	#10520.00	62.1 PK	68.2	-6.1	1.91 H	219	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	61.1 PK	74.0	-12.9	1.62 V	304	48.5	12.6
2	5150.00	48.8 AV	54.0	-5.2	1.62 V	304	36.2	12.6
3	*5260.00	123.4 PK			1.62 V	304	81.0	42.4
4	*5260.00	111.2 AV			1.62 V	304	68.8	42.4
5	#10520.00	62.7 PK	68.2	-5.5	2.21 V	322	40.2	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 = 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	*5300.00	122.4 PK			1.42 H	14	80.0	42.4
2	*5300.00	110.3 AV			1.42 H	14	67.9	42.4
3	10600.00	62.2 PK	74.0	-11.8	1.92 H	224	39.5	22.7
4	10600.00	49.1 AV	54.0	-4.9	1.92 H	224	26.4	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	124.6 PK			1.74 V	305	82.2	42.4
2	*5300.00	112.9 AV			1.74 V	305	70.5	42.4
3	10600.00	63.0 PK	74.0	-11.0	2.25 V	325	40.3	22.7
4	10600.00	49.5 AV	54.0	-4.5	2.25 V	325	26.8	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.



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 = 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	*5320.00	120.5 PK			1.41 H	15	78.0	42.5
2	*5320.00	108.7 AV			1.41 H	15	66.2	42.5
3	5350.00	70.1 PK	74.0	-3.9	1.41 H	15	57.7	12.4
4	5350.00	53.0 AV	54.0	-1.0	1.41 H	15	40.6	12.4
5	10640.00	62.3 PK	74.0	-11.7	1.85 H	215	39.5	22.8
6	10640.00	49.1 AV	54.0	-4.9	1.85 H	215	26.3	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	121.8 PK			1.69 V	304	79.3	42.5
2	*5320.00	110.3 AV			1.69 V	304	67.8	42.5
3	5350.00	73.1 PK	74.0	-0.9	1.69 V	304	60.7	12.4
4	5350.00	53.8 AV	54.0	-0.2	1.69 V	304	41.4	12.4
5	10640.00	62.9 PK	74.0	-11.1	2.25 V	318	40.1	22.8
6	10640.00	49.5 AV	54.0	-4.5	2.25 V	318	26.7	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 = 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	61.2 PK	74.0	-12.8	1.45 H	11	48.5	12.7
2	5460.00	47.7 AV	54.0	-6.3	1.45 H	11	35.0	12.7
3	#5470.00	66.9 PK	68.2	-1.3	1.45 H	11	54.2	12.7
4	*5500.00	120.2 PK			1.45 H	11	77.0	43.2
5	*5500.00	107.2 AV			1.45 H	11	64.0	43.2
6	11000.00	63.1 PK	74.0	-10.9	1.89 H	216	40.2	22.9
7	11000.00	49.1 AV	54.0	-4.9	1.89 H	216	26.2	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	61.8 PK	74.0	-12.2	1.70 V	332	49.1	12.7
2	5460.00	48.0 AV	54.0	-6.0	1.70 V	332	35.3	12.7
3	#5470.00	68.0 PK	68.2	-0.2	1.70 V	332	55.3	12.7
4	*5500.00	120.4 PK			1.70 V	332	77.2	43.2
5	*5500.00	107.5 AV			1.70 V	332	64.3	43.2
6	11000.00	63.4 PK	74.0	-10.6	2.21 V	315	40.5	22.9
7	11000.00	49.4 AV	54.0	-4.6	2.21 V	315	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 802.11ax (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 = 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	*5580.00	122.5 PK			1.45 H	11	79.4	43.1
2	*5580.00	111.5 AV			1.45 H	11	68.4	43.1
3	11160.00	63.3 PK	74.0	-10.7	1.89 H	227	40.2	23.1
4	11160.00	49.6 AV	54.0	-4.4	1.89 H	227	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	124.4 PK			1.68 V	322	81.3	43.1
2	*5580.00	112.2 AV			1.68 V	322	69.1	43.1
3	11160.00	63.6 PK	74.0	-10.4	2.29 V	321	40.5	23.1
4	11160.00	49.8 AV	54.0	-4.2	2.29 V	321	26.7	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 = 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	*5700.00	115.6 PK			1.59 H	9	72.5	43.1
2	*5700.00	104.1 AV			1.59 H	9	61.0	43.1
3	#5725.00	67.4 PK	68.2	-0.8	1.59 H	9	54.2	13.2
4	11400.00	64.0 PK	74.0	-10.0	1.92 H	218	40.0	24.0
5	11400.00	50.2 AV	54.0	-3.8	1.92 H	218	26.2	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	*5700.00	115.9 PK			1.65 V	326	72.8	43.1
2	*5700.00	104.3 AV			1.65 V	326	61.2	43.1
3	#5725.00	67.8 PK	68.2	-0.4	1.65 V	326	54.6	13.2
4	11400.00	64.2 PK	74.0	-9.8	2.21 V	325	40.2	24.0
5	11400.00	50.4 AV	54.0	-3.6	2.21 V	325	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 802.11ax (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 = 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	#5470.00	61.2 PK	68.2	-7.0	1.62 H	8	48.5	12.7
2	*5720.00	122.1 PK			1.62 H	8	78.7	43.4
3	*5720.00	110.4 AV			1.62 H	8	67.0	43.4
4	#5850.00	61.6 PK	68.2	-6.6	1.62 H	8	48.0	13.6
5	11440.00	64.2 PK	74.0	-9.8	1.89 H	225	40.2	24.0
6	11440.00	50.2 AV	54.0	-3.8	1.89 H	225	26.2	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	#5470.00	61.6 PK	68.2	-6.6	1.64 V	324	48.9	12.7
2	*5720.00	122.5 PK			1.64 V	324	79.1	43.4
3	*5720.00	110.8 AV			1.64 V	324	67.4	43.4
4	#5850.00	62.0 PK	68.2	-6.2	1.64 V	324	48.4	13.6
5	11440.00	64.5 PK	74.0	-9.5	2.15 V	319	40.5	24.0
6	11440.00	50.6 AV	54.0	-3.4	2.15 V	319	26.6	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 = 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	#5647.60	63.3 PK	68.2	-4.9	2.62 H	346	50.6	12.7
2	*5745.00	122.3 PK			2.62 H	346	78.7	43.6
3	*5745.00	110.9 AV			2.62 H	346	67.3	43.6
4	#5984.80	62.1 PK	68.2	-6.1	2.62 H	346	48.4	13.7
5	11490.00	64.6 PK	74.0	-9.4	2.99 H	140	40.6	24.0
6	11490.00	51.3 AV	54.0	-2.7	2.99 H	140	27.3	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	#5614.40	61.8 PK	68.2	-6.4	1.42 V	21	49.2	12.6
2	*5745.00	123.9 PK			1.42 V	21	80.3	43.6
3	*5745.00	112.5 AV			1.42 V	21	68.9	43.6
4	#5947.20	62.8 PK	68.2	-5.4	1.42 V	21	49.0	13.8
5	11490.00	64.7 PK	74.0	-9.3	1.49 V	326	40.7	24.0
6	11490.00	51.5 AV	54.0	-2.5	1.49 V	326	27.5	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.



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 = 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	#5626.80	60.7 PK	68.2	-7.5	2.62 H	346	48.0	12.7
2	*5785.00	123.1 PK			2.62 H	346	79.3	43.8
3	*5785.00	111.7 AV			2.62 H	346	67.9	43.8
4	#5952.40	61.4 PK	68.2	-6.8	2.62 H	346	47.6	13.8
5	11570.00	64.1 PK	74.0	-9.9	2.99 H	137	40.3	23.8
6	11570.00	51.0 AV	54.0	-3.0	2.99 H	137	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	#5626.00	61.4 PK	68.2	-6.8	1.37 V	19	48.8	12.6
2	*5785.00	123.3 PK			1.37 V	19	79.5	43.8
3	*5785.00	112.2 AV			1.37 V	19	68.4	43.8
4	#5941.60	61.7 PK	68.2	-6.5	1.37 V	19	47.9	13.8
5	11570.00	64.3 PK	74.0	-9.7	2.12 V	155	40.5	23.8
6	11570.00	51.4 AV	54.0	-2.6	2.12 V	155	27.6	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 = 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	#5616.40	60.1 PK	68.2	-8.1	2.63 H	346	47.5	12.6
2	*5825.00	122.7 PK			2.63 H	346	78.7	44.0
3	*5825.00	110.8 AV			2.63 H	346	66.8	44.0
4	#5930.00	62.3 PK	68.2	-5.9	2.63 H	346	48.5	13.8
5	11650.00	64.0 PK	74.0	-10.0	2.96 H	141	40.7	23.3
6	11650.00	50.9 AV	54.0	-3.1	2.96 H	141	27.6	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	#5637.60	61.0 PK	68.2	-7.2	1.37 V	21	48.3	12.7
2	*5825.00	123.6 PK			1.37 V	21	79.6	44.0
3	*5825.00	112.0 AV			1.37 V	21	68.0	44.0
4	#5927.20	65.8 PK	68.2	-2.4	1.37 V	21	52.0	13.8
5	11650.00	64.2 PK	74.0	-9.8	1.33 V	145	40.9	23.3
6	11650.00	51.0 AV	54.0	-3.0	1.33 V	145	27.7	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 = 1 kHz
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	70.2 PK	74.0	-3.8	1.40 H	3	57.6	12.6
2	5150.00	53.1 AV	54.0	-0.9	1.40 H	3	40.5	12.6
3	*5190.00	115.1 PK			1.40 H	3	72.5	42.6
4	*5190.00	103.4 AV			1.40 H	3	60.8	42.6
5	#10380.00	61.8 PK	68.2	-6.4	1.89 H	227	39.3	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	72.1 PK	74.0	-1.9	1.17 V	359	59.5	12.6
2	5150.00	53.9 AV	54.0	-0.1	1.17 V	359	41.3	12.6
3	*5190.00	115.7 PK			1.17 V	359	73.1	42.6
4	*5190.00	103.7 AV			1.17 V	359	61.1	42.6
5	#10380.00	62.2 PK	68.2	-6.0	1.52 V	154	39.7	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 (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 = 1 kHz
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	1.50 H	18	54.7	12.6
2	5150.00	52.6 AV	54.0	-1.4	1.50 H	18	40.0	12.6
3	*5230.00	121.2 PK			1.50 H	18	78.8	42.4
4	*5230.00	108.3 AV			1.50 H	18	65.9	42.4
5	5350.00	60.4 PK	74.0	-13.6	1.50 H	18	48.0	12.4
6	5350.00	47.0 AV	54.0	-7.0	1.50 H	18	34.6	12.4
7	#10460.00	62.2 PK	68.2	-6.0	1.85 H	216	39.6	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	4874.00	62.4 PK	74.0	-11.6	1.16 V	3	50.5	11.9
2	4874.00	53.1 AV	54.0	-0.9	1.16 V	3	41.2	11.9
3	5148.00	67.7 PK	74.0	-6.3	1.16 V	3	55.1	12.6
4	5148.00	53.7 AV	54.0	-0.3	1.16 V	3	41.1	12.6
5	*5230.00	122.0 PK			1.16 V	3	79.6	42.4
6	*5230.00	109.3 AV			1.16 V	3	66.9	42.4
7	5350.00	61.8 PK	74.0	-12.2	1.16 V	3	49.4	12.4
8	5350.00	48.7 AV	54.0	-5.3	1.16 V	3	36.3	12.4
9	#10460.00	62.4 PK	68.2	-5.8	1.13 V	169	39.8	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 54 : 5270 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	61.1 PK	74.0	-12.9	1.40 H	14	48.5	12.6
2	5150.00	48.1 AV	54.0	-5.9	1.40 H	14	35.5	12.6
3	*5270.00	120.4 PK			1.40 H	14	78.0	42.4
4	*5270.00	108.0 AV			1.40 H	14	65.6	42.4
5	5350.00	67.4 PK	74.0	-6.6	1.40 H	14	55.0	12.4
6	5350.00	51.7 AV	54.0	-2.3	1.40 H	14	39.3	12.4
7	#10540.00	62.1 PK	68.2	-6.1	1.88 H	216	39.5	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	61.3 PK	74.0	-12.7	1.67 V	299	48.7	12.6
2	5150.00	48.5 AV	54.0	-5.5	1.67 V	299	35.9	12.6
3	*5270.00	121.6 PK			1.67 V	299	79.2	42.4
4	*5270.00	109.2 AV			1.67 V	299	66.8	42.4
5	5350.00	68.0 PK	74.0	-6.0	1.67 V	299	55.6	12.4
6	5350.00	52.6 AV	54.0	-1.4	1.67 V	299	40.2	12.4
7	#10540.00	62.8 PK	68.2	-5.4	2.19 V	309	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 62 : 5310 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	*5310.00	115.2 PK			1.34 H	6	72.7	42.5
2	*5310.00	102.7 AV			1.34 H	6	60.2	42.5
3	5350.00	70.8 PK	74.0	-3.2	1.34 H	6	58.4	12.4
4	5350.00	51.9 AV	54.0	-2.1	1.34 H	6	39.5	12.4
5	10620.00	62.2 PK	74.0	-11.8	1.85 H	228	39.5	22.7
6	10620.00	48.7 AV	54.0	-5.3	1.85 H	228	26.0	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	*5310.00	117.3 PK			1.67 V	301	74.8	42.5
2	*5310.00	104.8 AV			1.67 V	301	62.3	42.5
3	5350.00	73.4 PK	74.0	-0.6	1.67 V	301	61.0	12.4
4	5350.00	53.0 AV	54.0	-1.0	1.67 V	301	40.6	12.4
5	10620.00	62.5 PK	74.0	-11.5	2.21 V	305	39.8	22.7
6	10620.00	49.0 AV	54.0	-5.0	2.21 V	305	26.3	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 = 1 kHz
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	5460.00	65.7 PK	74.0	-8.3	1.41 H	10	53.0	12.7
2	5460.00	48.8 AV	54.0	-5.2	1.41 H	10	36.1	12.7
3	#5470.00	67.3 PK	68.2	-0.9	1.41 H	10	54.6	12.7
4	*5510.00	114.8 PK			1.41 H	10	71.6	43.2
5	*5510.00	101.9 AV			1.41 H	10	58.7	43.2
6	11020.00	62.5 PK	74.0	-11.5	1.86 H	215	39.7	22.8
7	11020.00	48.7 AV	54.0	-5.3	1.86 H	215	25.9	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	66.9 PK	74.0	-7.1	1.74 V	298	54.2	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.74 V	298	37.0	12.7
3	#5470.00	67.9 PK	68.2	-0.3	1.74 V	298	55.2	12.7
4	*5510.00	115.4 PK			1.74 V	298	72.2	43.2
5	*5510.00	102.6 AV			1.74 V	298	59.4	43.2
6	11020.00	63.4 PK	74.0	-10.6	2.21 V	325	40.6	22.8
7	11020.00	49.3 AV	54.0	-4.7	2.21 V	325	26.5	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.
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 = 1 kHz
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	5460.00	65.9 PK	74.0	-8.1	1.35 H	8	53.2	12.7
2	5460.00	50.7 AV	54.0	-3.3	1.35 H	8	38.0	12.7
3	#5470.00	66.9 PK	68.2	-1.3	1.35 H	8	54.2	12.7
4	*5550.00	119.7 PK			1.35 H	8	76.5	43.2
5	*5550.00	106.9 AV			1.35 H	8	63.7	43.2
6	11100.00	62.7 PK	74.0	-11.3	1.88 H	225	39.8	22.9
7	11100.00	48.9 AV	54.0	-5.1	1.88 H	225	26.0	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	66.3 PK	74.0	-7.7	1.78 V	299	53.6	12.7
2	5460.00	51.4 AV	54.0	-2.6	1.78 V	299	38.7	12.7
3	#5470.00	67.7 PK	68.2	-0.5	1.78 V	299	55.0	12.7
4	*5550.00	120.0 PK			1.78 V	299	76.8	43.2
5	*5550.00	108.1 AV			1.78 V	299	64.9	43.2
6	11100.00	63.4 PK	74.0	-10.6	2.08 V	316	40.5	22.9
7	11100.00	49.4 AV	54.0	-4.6	2.08 V	316	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 802.11ax (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 = 1 kHz
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	*5670.00	117.1 PK			1.26 H	5	74.0	43.1
2	*5670.00	104.5 AV			1.26 H	5	61.4	43.1
3	#5725.00	67.7 PK	68.2	-0.5	1.26 H	5	54.5	13.2
4	11340.00	63.9 PK	74.0	-10.1	2.21 H	308	40.2	23.7
5	11340.00	49.8 AV	54.0	-4.2	2.21 H	308	26.1	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	117.3 PK			1.79 V	296	74.2	43.1
2	*5670.00	104.8 AV			1.79 V	296	61.7	43.1
3	#5725.00	68.1 PK	68.2	-0.1	1.79 V	296	54.9	13.2
4	11340.00	64.2 PK	74.0	-9.8	2.19 V	305	40.5	23.7
5	11340.00	50.2 AV	54.0	-3.8	2.19 V	305	26.5	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 = 1 kHz
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	#5470.00	60.8 PK	68.2	-7.4	1.71 H	6	48.1	12.7
2	*5710.00	119.9 PK			1.71 H	6	76.7	43.2
3	*5710.00	106.7 AV			1.71 H	6	63.5	43.2
4	#5850.00	60.9 PK	68.2	-7.3	1.71 H	6	47.3	13.6
5	11420.00	64.0 PK	74.0	-10.0	1.85 H	221	39.9	24.1
6	11420.00	50.0 AV	54.0	-4.0	1.85 H	221	25.9	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	60.9 PK	68.2	-7.3	1.78 V	294	48.2	12.7
2	*5710.00	120.2 PK			1.78 V	294	77.0	43.2
3	*5710.00	108.0 AV			1.78 V	294	64.8	43.2
4	#5850.00	61.1 PK	68.2	-7.1	1.78 V	294	47.5	13.6
5	11420.00	64.7 PK	74.0	-9.3	2.25 V	318	40.6	24.1
6	11420.00	50.6 AV	54.0	-3.4	2.25 V	318	26.5	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 = 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	#5647.60	65.3 PK	68.2	-2.9	2.63 H	351	52.6	12.7
2	*5755.00	120.7 PK			2.63 H	351	77.1	43.6
3	*5755.00	108.8 AV			2.63 H	351	65.2	43.6
4	#5930.40	62.2 PK	68.2	-6.0	2.63 H	351	48.4	13.8
5	11510.00	63.9 PK	74.0	-10.1	2.94 H	142	40.0	23.9
6	11510.00	51.2 AV	54.0	-2.8	2.94 H	142	27.3	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	#5648.80	67.2 PK	68.2	-1.0	1.39 V	21	54.5	12.7
2	*5755.00	122.0 PK			1.39 V	21	78.4	43.6
3	*5755.00	109.6 AV			1.39 V	21	66.0	43.6
4	#5948.80	62.5 PK	68.2	-5.7	1.39 V	21	48.7	13.8
5	11510.00	64.1 PK	74.0	-9.9	2.16 V	302	40.2	23.9
6	11510.00	51.4 AV	54.0	-2.6	2.16 V	302	27.5	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 = 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	#5646.00	60.6 PK	68.2	-7.6	2.65 H	352	47.9	12.7
2	*5795.00	120.0 PK			2.65 H	352	76.1	43.9
3	*5795.00	108.0 AV			2.65 H	352	64.1	43.9
4	#5927.20	65.9 PK	68.2	-2.3	2.65 H	352	52.1	13.8
5	11590.00	64.1 PK	74.0	-9.9	2.84 H	139	40.3	23.8
6	11590.00	50.8 AV	54.0	-3.2	2.84 H	139	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	#5644.00	62.3 PK	68.2	-5.9	1.37 V	25	49.6	12.7
2	*5795.00	121.1 PK			1.37 V	25	77.2	43.9
3	*5795.00	109.2 AV			1.37 V	25	65.3	43.9
4	#5931.60	66.6 PK	68.2	-1.6	1.37 V	25	52.8	13.8
5	11590.00	64.3 PK	74.0	-9.7	1.33 V	326	40.5	23.8
6	11590.00	50.8 AV	54.0	-3.2	1.33 V	326	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 = 1 kHz
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	1.55 H	15	56.4	12.6
2	5150.00	53.4 AV	54.0	-0.6	1.55 H	15	40.8	12.6
3	*5210.00	110.7 PK			1.55 H	15	68.2	42.5
4	*5210.00	98.1 AV			1.55 H	15	55.6	42.5
5	#10420.00	61.8 PK	68.2	-6.4	1.92 H	227	39.2	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	5149.00	69.5 PK	74.0	-4.5	1.24 V	4	56.9	12.6
2	5149.00	53.9 AV	54.0	-0.1	1.24 V	4	41.3	12.6
3	*5210.00	111.0 PK			1.24 V	4	68.5	42.5
4	*5210.00	98.5 AV			1.24 V	4	56.0	42.5
5	#10420.00	62.1 PK	68.2	-6.1	1.55 V	303	39.5	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 = 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	60.4 PK	74.0	-13.6	1.48 H	15	47.8	12.6
2	5150.00	47.7 AV	54.0	-6.3	1.48 H	15	35.1	12.6
3	*5290.00	111.4 PK			1.48 H	15	69.0	42.4
4	*5290.00	99.4 AV			1.48 H	15	57.0	42.4
5	5350.00	70.2 PK	74.0	-3.8	1.48 H	15	57.8	12.4
6	5350.00	52.5 AV	54.0	-1.5	1.48 H	15	40.1	12.4
7	#10580.00	62.0 PK	68.2	-6.2	1.78 H	216	39.2	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	60.8 PK	74.0	-13.2	1.74 V	303	48.2	12.6
2	5150.00	48.0 AV	54.0	-6.0	1.74 V	303	35.4	12.6
3	*5290.00	112.2 PK			1.74 V	303	69.8	42.4
4	*5290.00	101.1 AV			1.74 V	303	58.7	42.4
5	5350.00	73.3 PK	74.0	-0.7	1.74 V	303	60.9	12.4
6	5350.00	53.2 AV	54.0	-0.8	1.74 V	303	40.8	12.4
7	#10580.00	62.4 PK	68.2	-5.8	2.11 V	307	39.6	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 = 1 kHz
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	5460.00	65.2 PK	74.0	-8.8	1.49 H	9	52.5	12.7
2	5460.00	50.7 AV	54.0	-3.3	1.49 H	9	38.0	12.7
3	#5470.00	67.6 PK	68.2	-0.6	1.49 H	9	54.9	12.7
4	*5530.00	111.2 PK			1.49 H	9	68.0	43.2
5	*5530.00	99.3 AV			1.49 H	9	56.1	43.2
6	#5725.00	60.6 PK	68.2	-7.6	1.49 H	9	47.4	13.2
7	11060.00	62.6 PK	74.0	-11.4	1.93 H	221	39.8	22.8
8	11060.00	48.7 AV	54.0	-5.3	1.93 H	221	25.9	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	65.5 PK	74.0	-8.5	1.76 V	298	52.8	12.7
2	5460.00	51.1 AV	54.0	-2.9	1.76 V	298	38.4	12.7
3	#5470.00	68.0 PK	68.2	-0.2	1.76 V	298	55.3	12.7
4	*5530.00	111.8 PK			1.76 V	298	68.6	43.2
5	*5530.00	99.9 AV			1.76 V	298	56.7	43.2
6	#5725.00	60.8 PK	68.2	-7.4	1.76 V	298	47.6	13.2
7	11060.00	63.0 PK	74.0	-11.0	2.05 V	314	40.2	22.8
8	11060.00	49.0 AV	54.0	-5.0	2.05 V	314	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 (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 = 1 kHz
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	5460.00	63.2 PK	74.0	-10.8	1.47 H	10	50.5	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.47 H	10	37.0	12.7
3	#5470.00	65.7 PK	68.2	-2.5	1.47 H	10	53.0	12.7
4	*5610.00	115.7 PK			1.47 H	10	72.6	43.1
5	*5610.00	103.3 AV			1.47 H	10	60.2	43.1
6	#5725.00	66.8 PK	68.2	-1.4	1.47 H	10	53.6	13.2
7	11220.00	63.5 PK	74.0	-10.5	1.85 H	225	40.1	23.4
8	11220.00	49.4 AV	54.0	-4.6	1.85 H	225	26.0	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	63.3 PK	74.0	-10.7	1.80 V	294	50.6	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.80 V	294	37.0	12.7
3	#5470.00	65.9 PK	68.2	-2.3	1.80 V	294	53.2	12.7
4	*5610.00	116.1 PK			1.80 V	294	73.0	43.1
5	*5610.00	103.5 AV			1.80 V	294	60.4	43.1
6	#5725.00	67.8 PK	68.2	-0.4	1.80 V	294	54.6	13.2
7	11220.00	63.7 PK	74.0	-10.3	2.07 V	312	40.3	23.4
8	11220.00	49.7 AV	54.0	-4.3	2.07 V	312	26.3	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 = 1 kHz
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	#5470.00	62.4 PK	68.2	-5.8	1.49 H	7	49.7	12.7
2	*5690.00	115.8 PK			1.49 H	7	72.7	43.1
3	*5690.00	104.6 AV			1.49 H	7	61.5	43.1
4	#5850.00	67.6 PK	68.2	-0.6	1.49 H	7	54.0	13.6
5	11380.00	63.8 PK	74.0	-10.2	1.92 H	228	39.8	24.0
6	11380.00	50.0 AV	54.0	-4.0	1.92 H	228	26.0	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	62.9 PK	68.2	-5.3	1.91 V	296	50.2	12.7
2	*5690.00	116.2 PK			1.91 V	296	73.1	43.1
3	*5690.00	104.8 AV			1.91 V	296	61.7	43.1
4	#5850.00	68.1 PK	68.2	-0.1	1.91 V	296	54.5	13.6
5	11380.00	64.3 PK	74.0	-9.7	2.09 V	319	40.3	24.0
6	11380.00	50.3 AV	54.0	-3.7	2.09 V	319	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 (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 = 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	#5647.60	65.1 PK	68.2	-3.1	2.63 H	353	52.4	12.7
2	*5775.00	114.9 PK			2.63 H	353	71.1	43.8
3	*5775.00	103.2 AV			2.63 H	353	59.4	43.8
4	#5928.40	65.7 PK	68.2	-2.5	2.63 H	353	51.9	13.8
5	11550.00	64.2 PK	74.0	-9.8	2.89 H	138	40.3	23.9
6	11550.00	51.0 AV	54.0	-3.0	2.89 H	138	27.1	23.9

Antenna Polarity & Test Distance : Vertical at 3 m

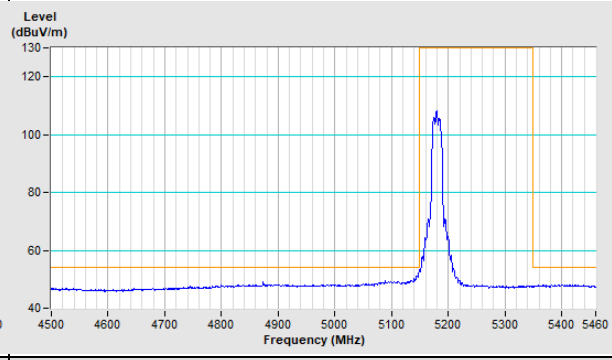
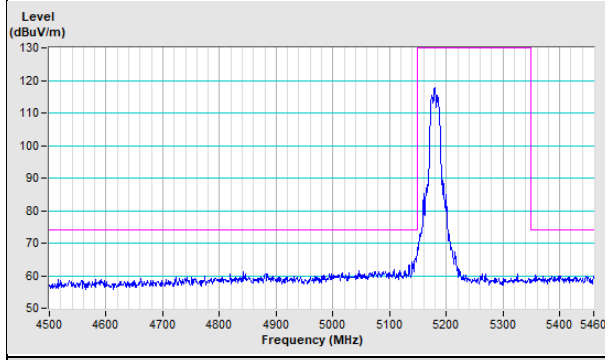
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1	#5644.40	66.3 PK	68.2	-1.9	1.39 V	355	53.6	12.7
2	*5775.00	117.4 PK			1.39 V	355	73.6	43.8
3	*5775.00	105.8 AV			1.39 V	355	62.0	43.8
4	#5926.40	67.7 PK	68.2	-0.5	1.39 V	355	53.9	13.8
5	11550.00	64.4 PK	74.0	-9.6	2.15 V	134	40.5	23.9
6	11550.00	51.1 AV	54.0	-2.9	2.15 V	134	27.2	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.

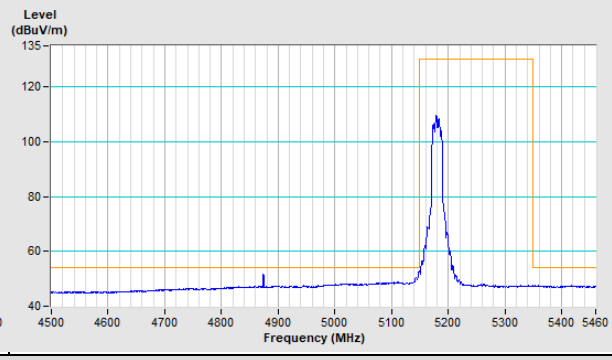
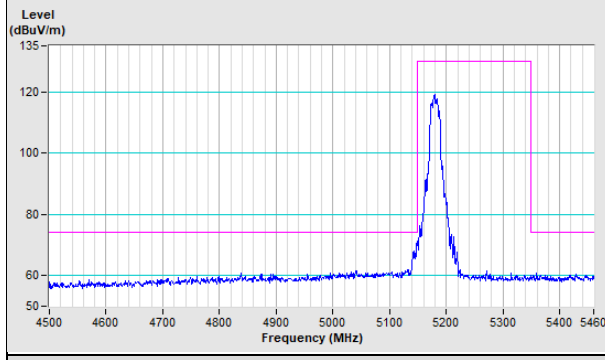
802.11a Channel 36

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



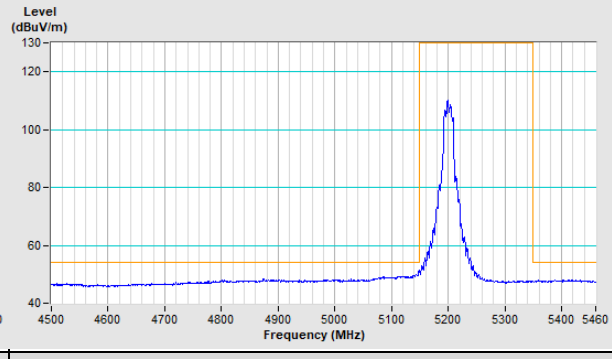
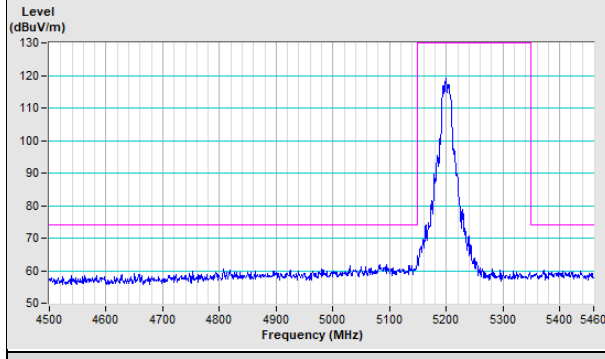
Vertical (Peak)

Vertical (Average)



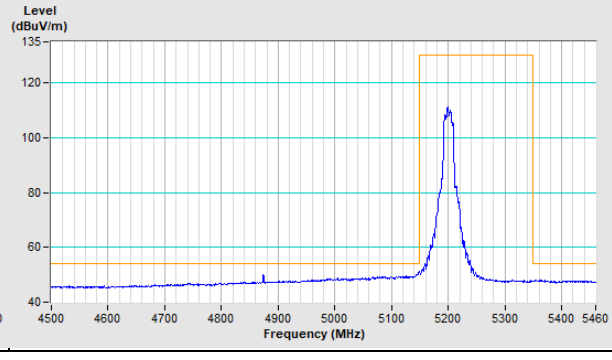
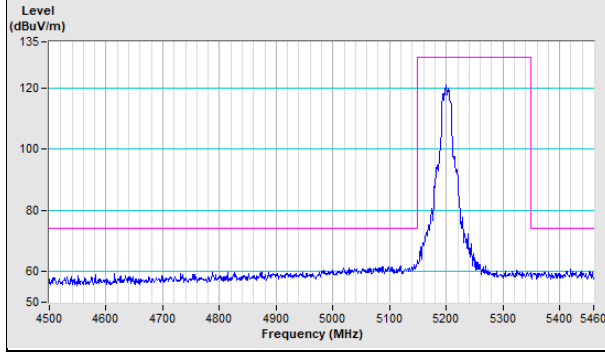
802.11a Channel 40

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

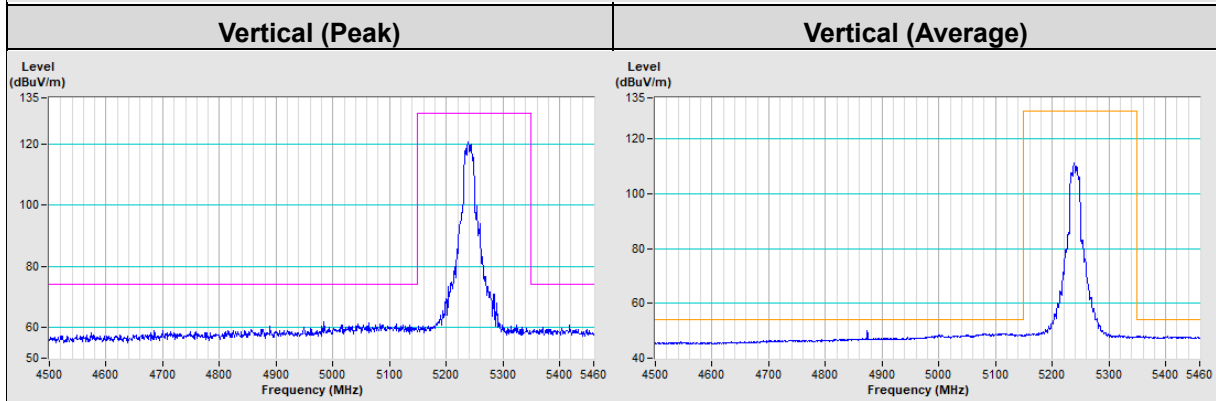
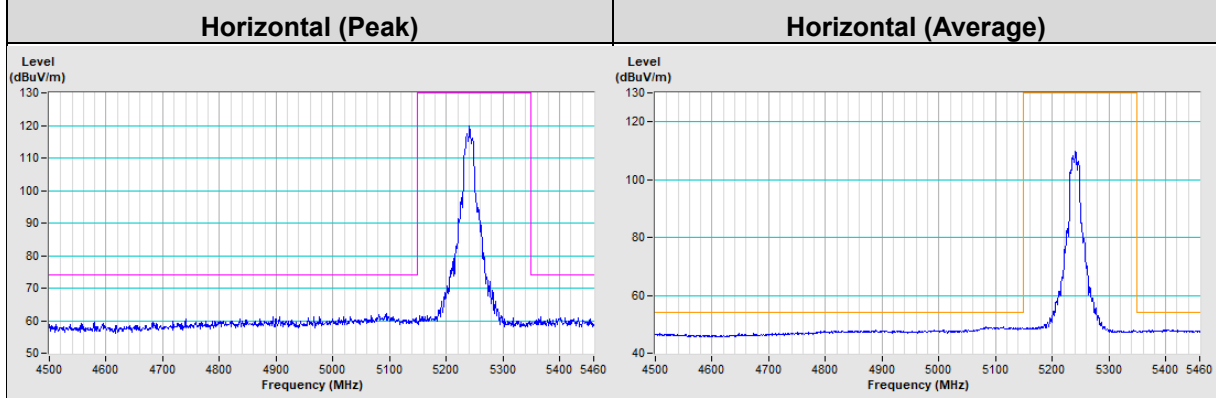


Vertical (Peak)

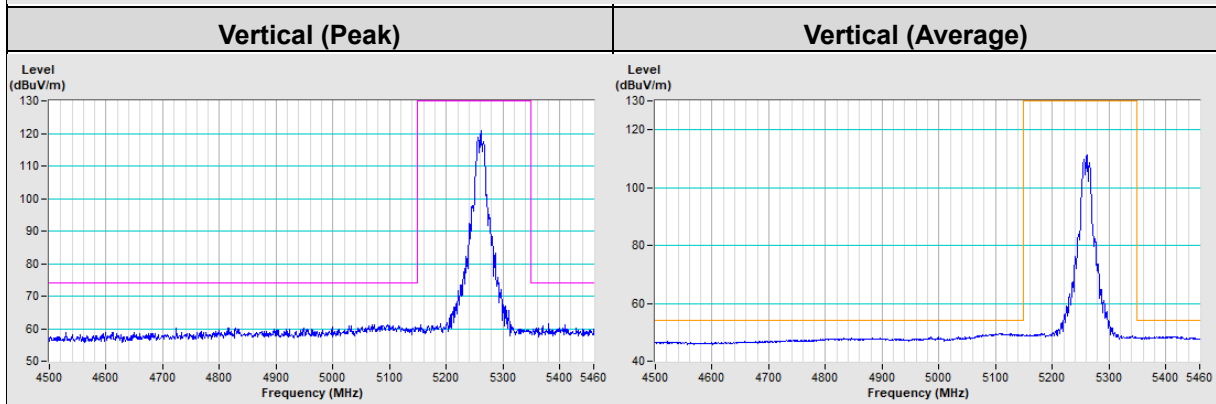
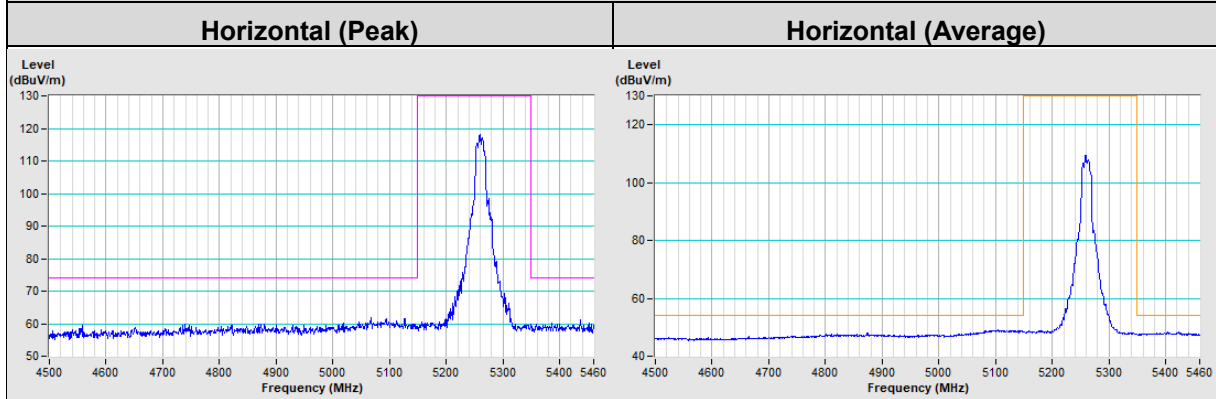
Vertical (Average)



802.11a Channel 48

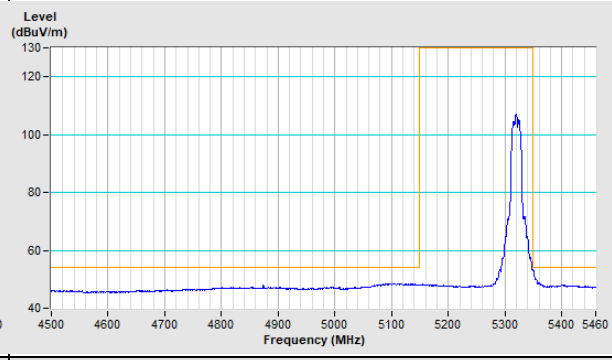
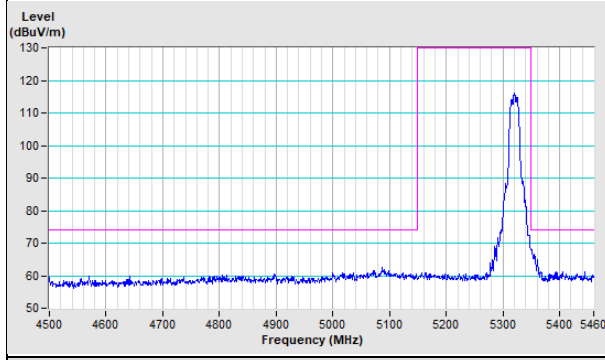


802.11a Channel 52



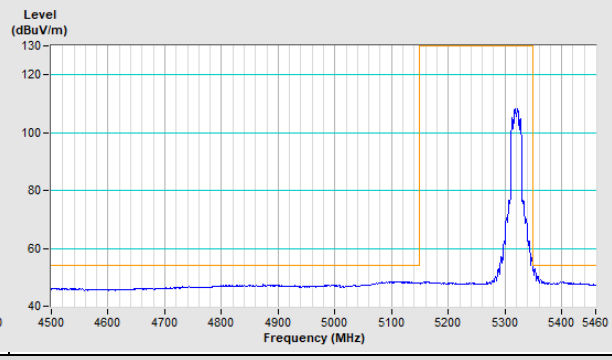
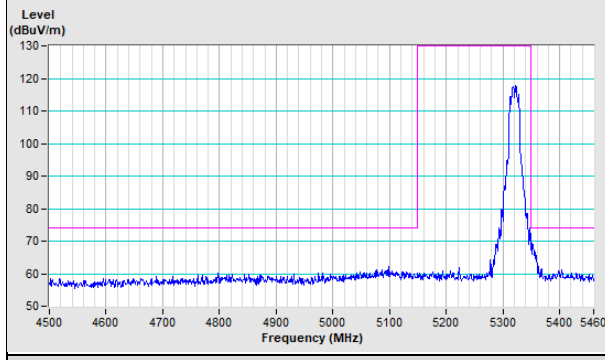
802.11a Channel 64

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



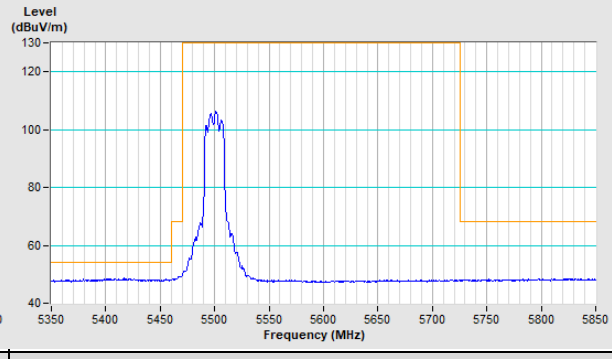
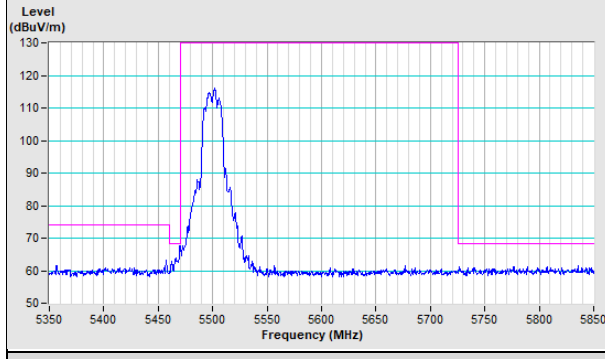
Vertical (Peak)

Vertical (Average)



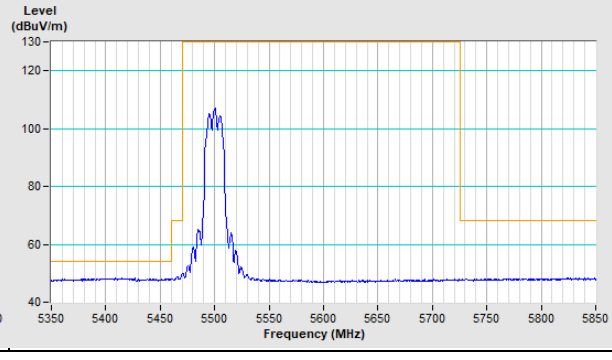
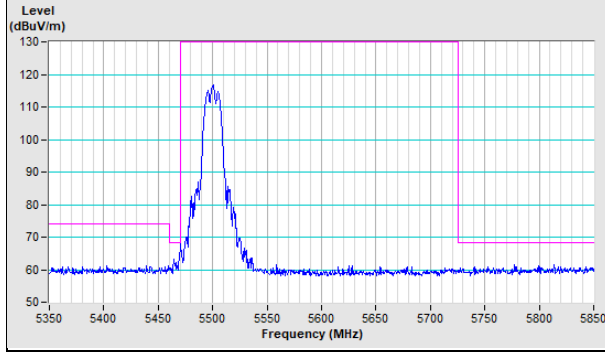
802.11a Channel 100

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

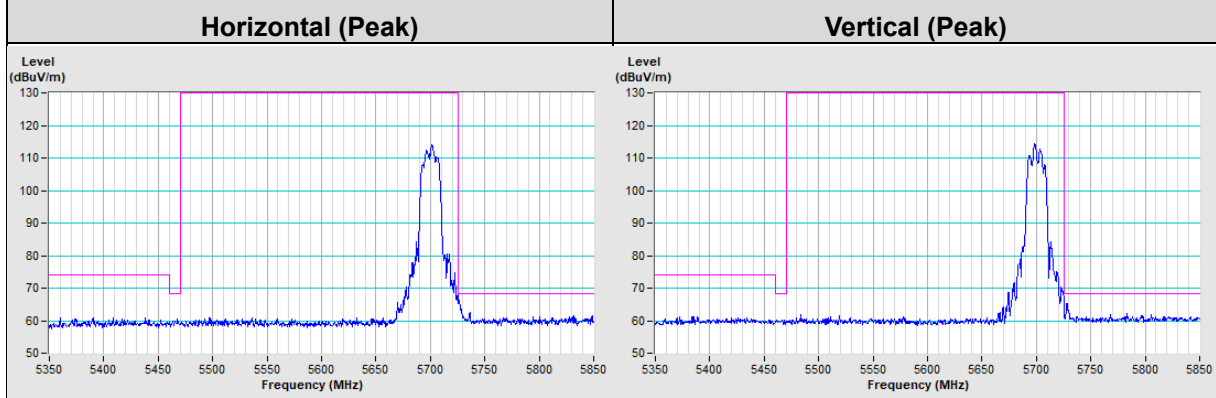


Vertical (Peak)

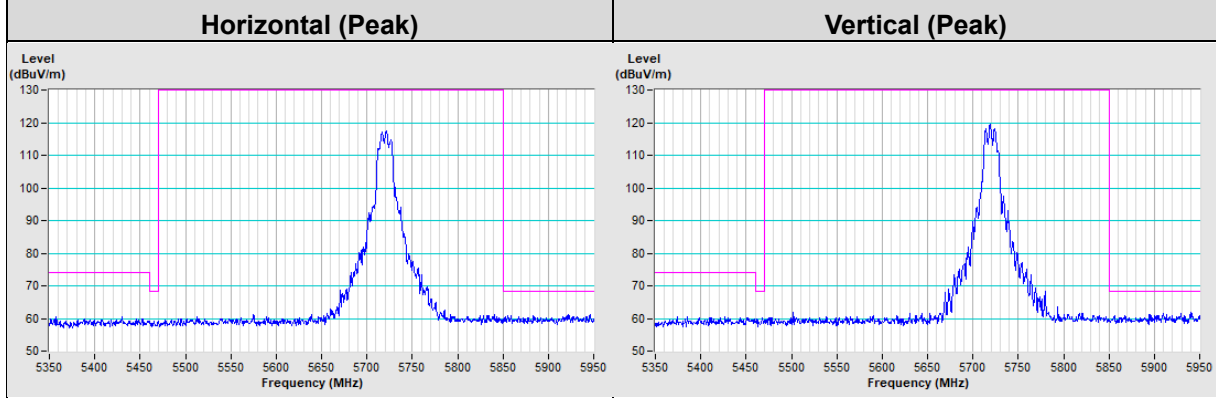
Vertical (Average)



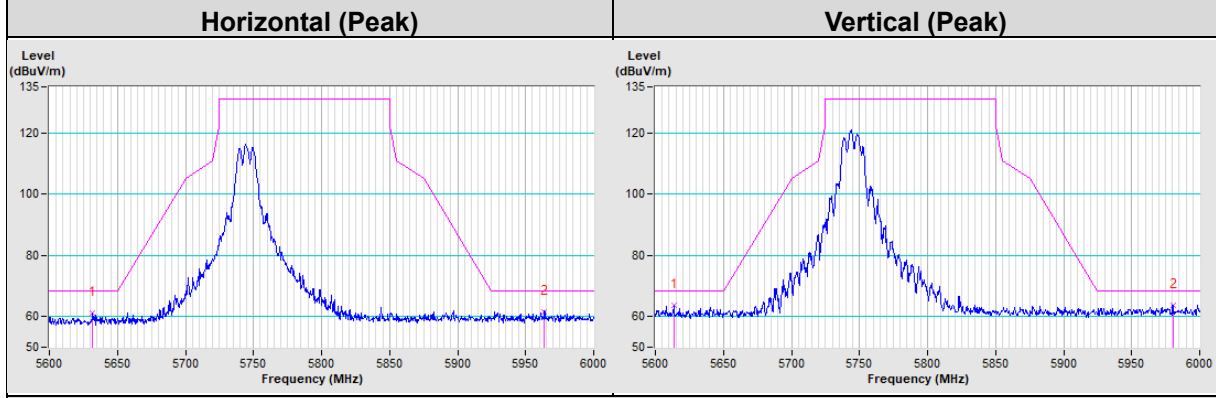
802.11a Channel 140



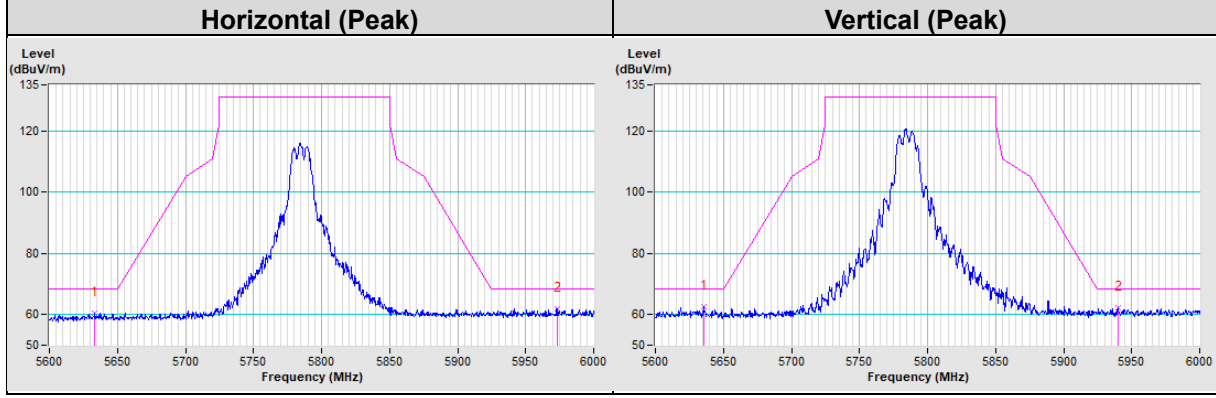
802.11a Channel 144

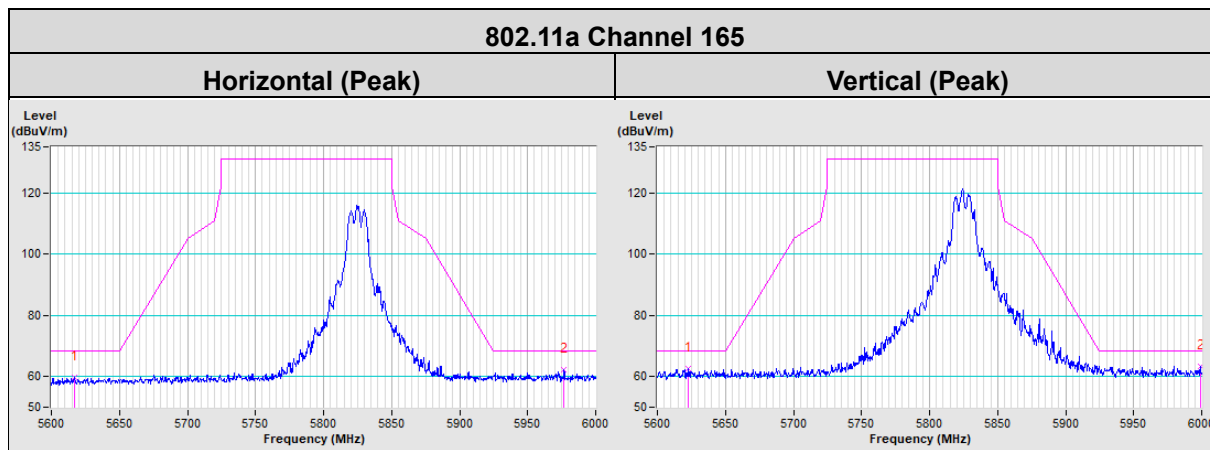


802.11a Channel 149

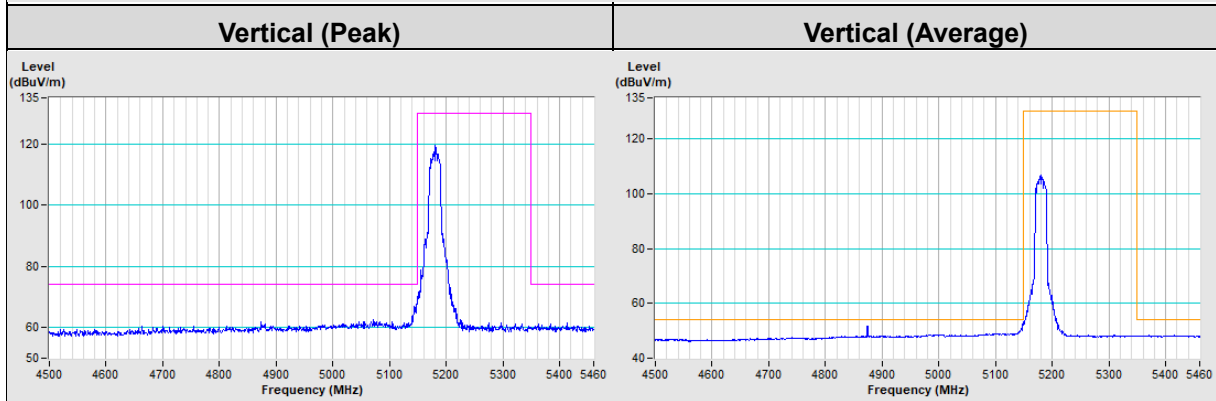
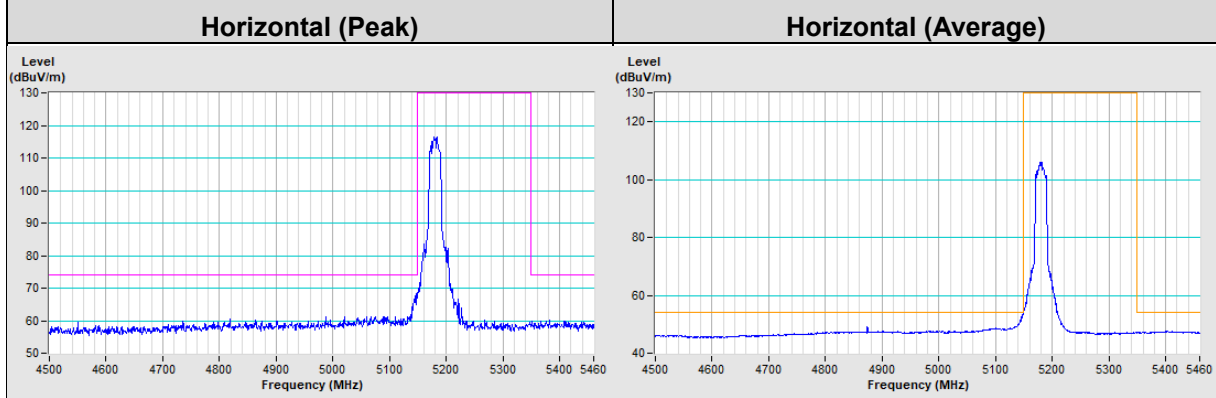


802.11a Channel 157

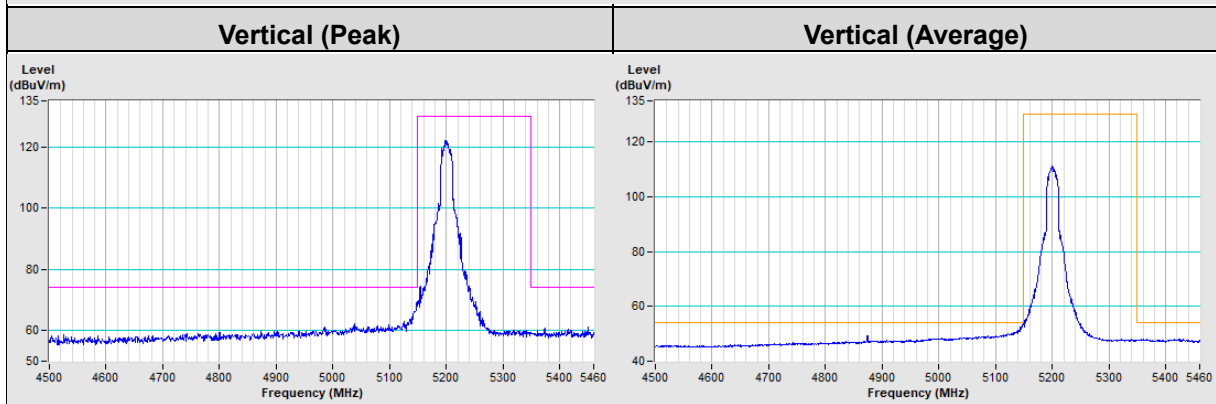
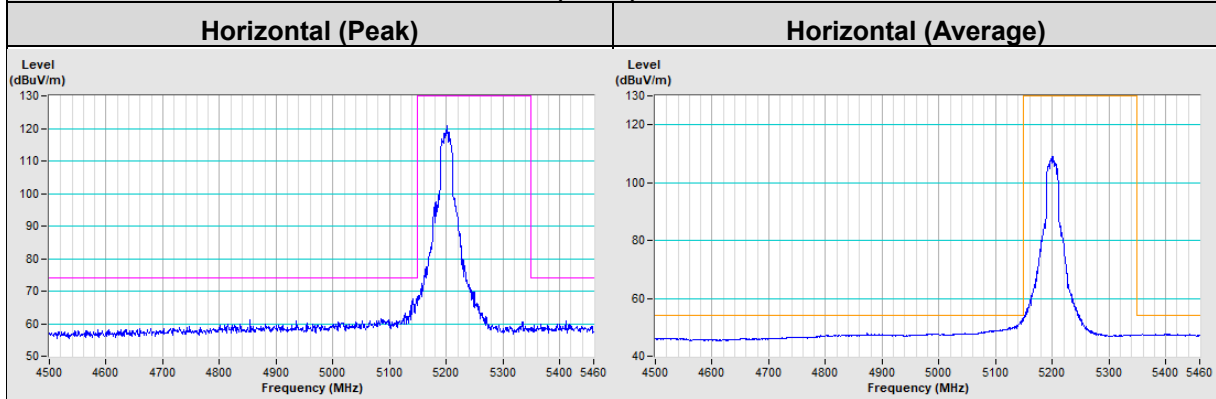




802.11ax (HE20) Channel 36

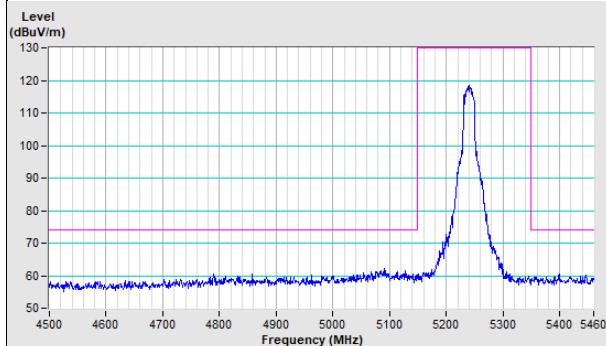


802.11ax (HE20) Channel 40

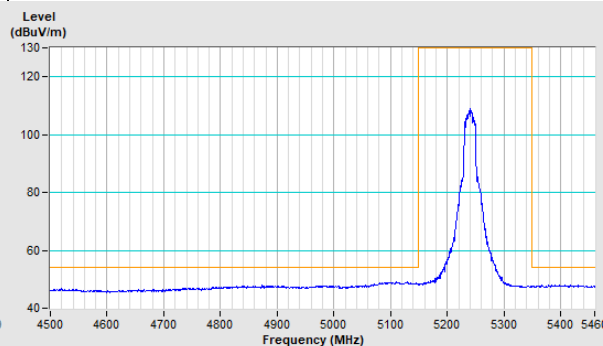


802.11ax (HE20) Channel 48

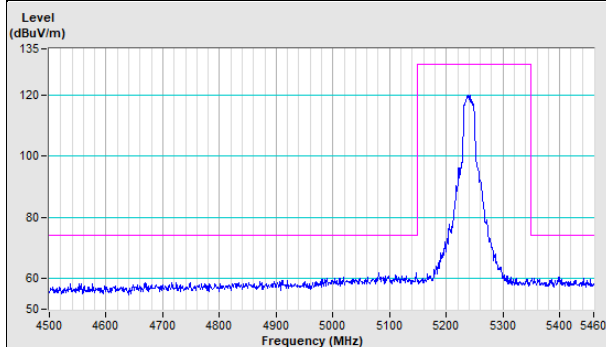
Horizontal (Peak)



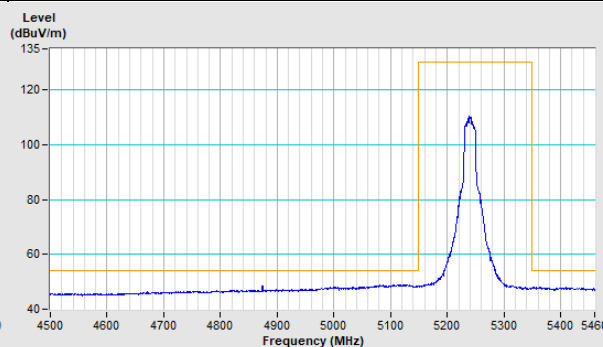
Horizontal (Average)



Vertical (Peak)

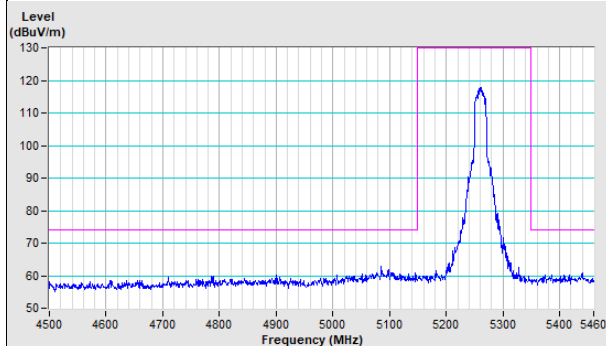


Vertical (Average)

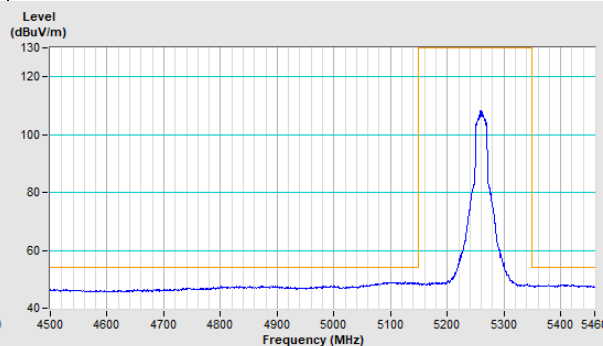


802.11ax (HE20) Channel 52

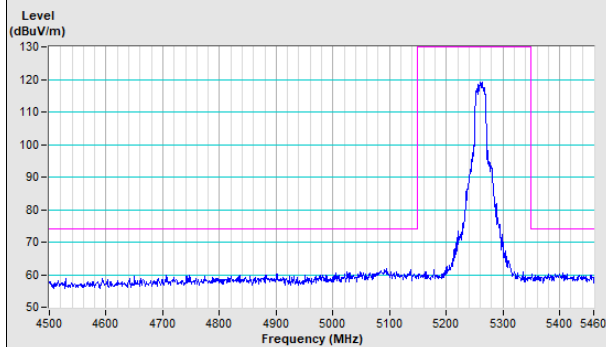
Horizontal (Peak)



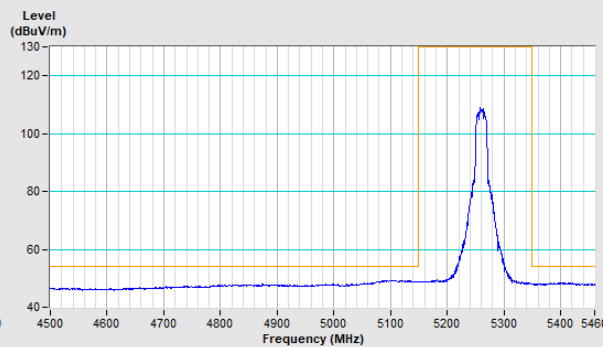
Horizontal (Average)



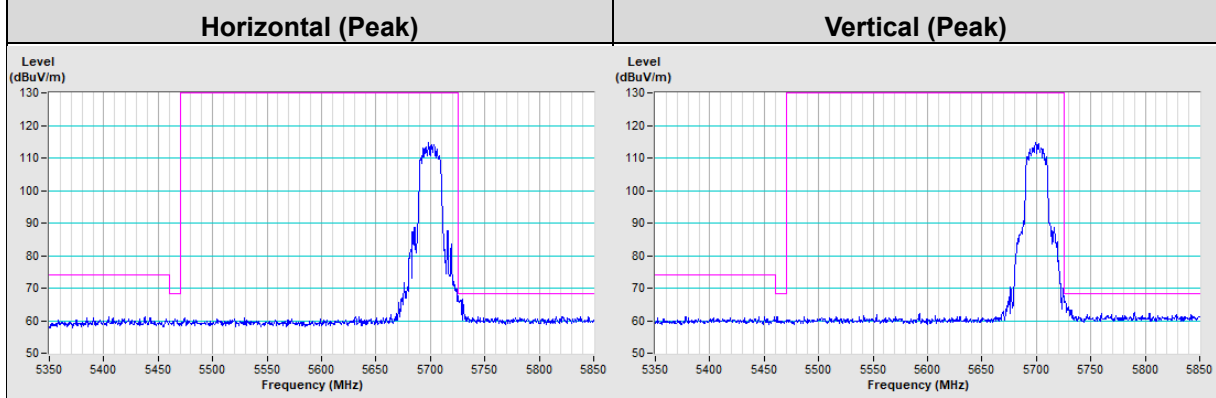
Vertical (Peak)



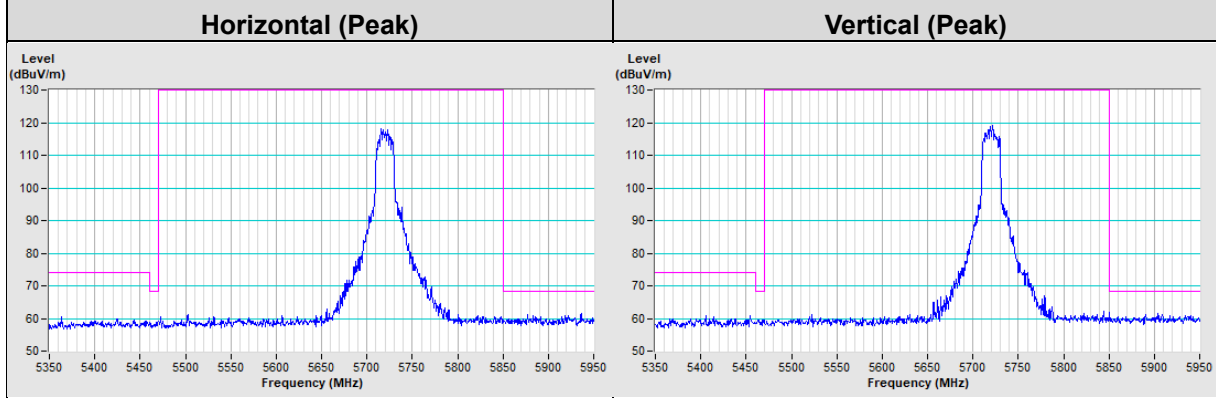
Vertical (Average)



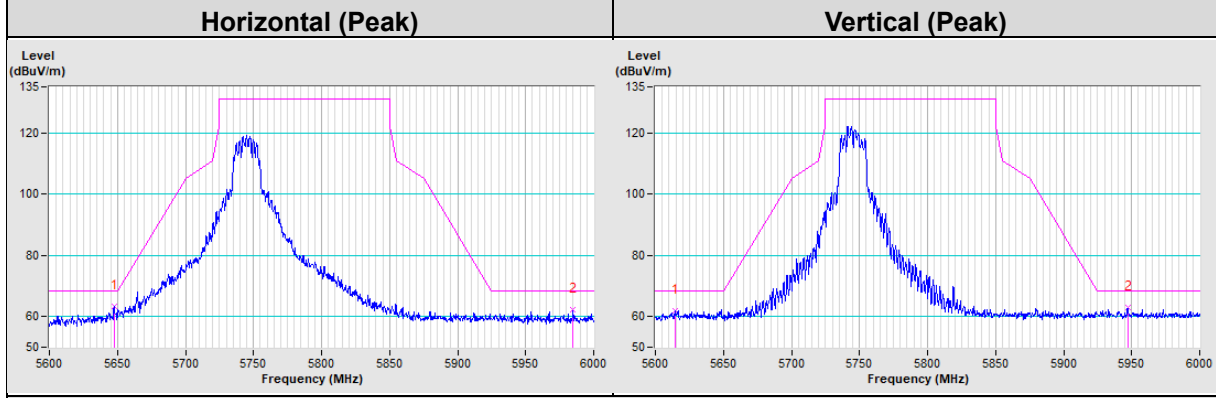
802.11ax (HE20) Channel 140



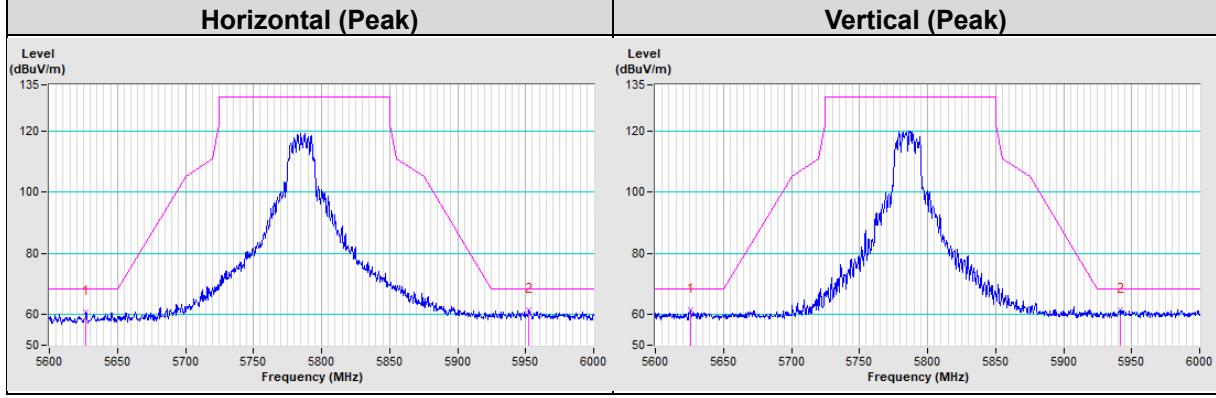
802.11ax (HE20) Channel 144

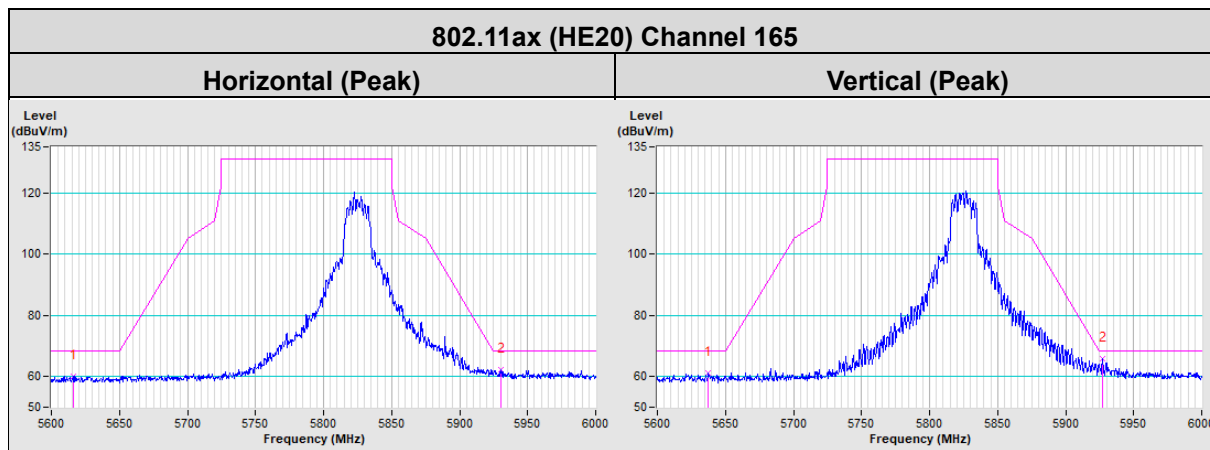


802.11ax (HE20) Channel 149



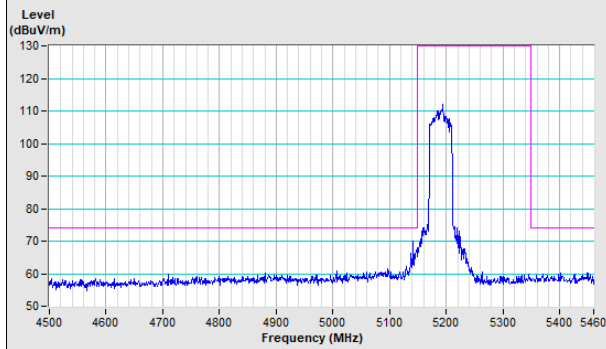
802.11ax (HE20) Channel 157



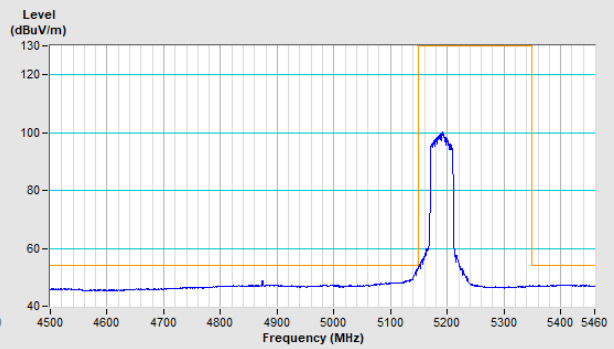


802.11ax (HE40) Channel 38

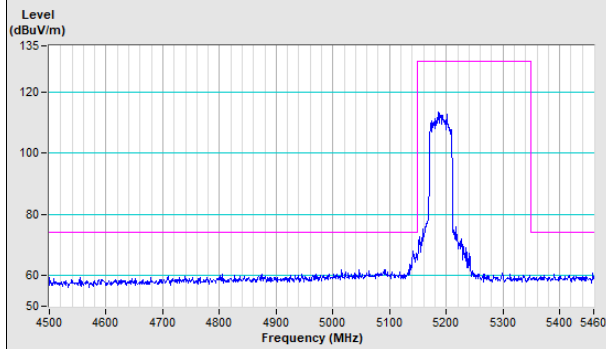
Horizontal (Peak)



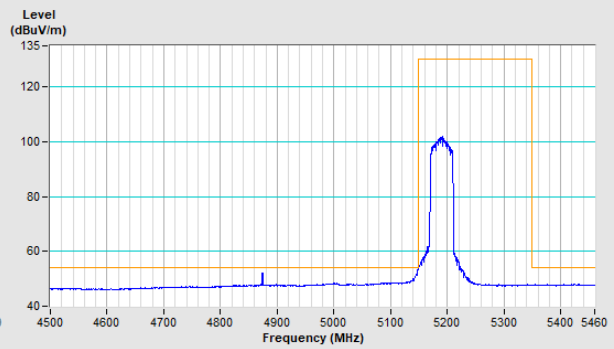
Horizontal (Average)



Vertical (Peak)

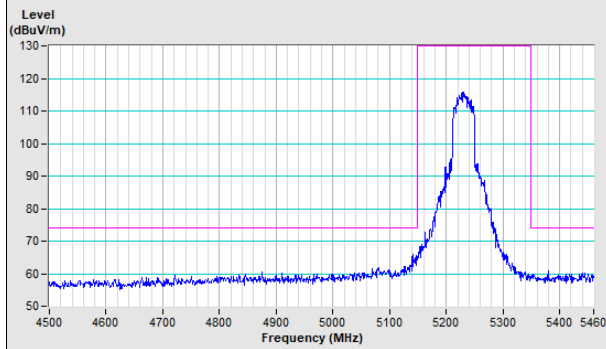


Vertical (Average)

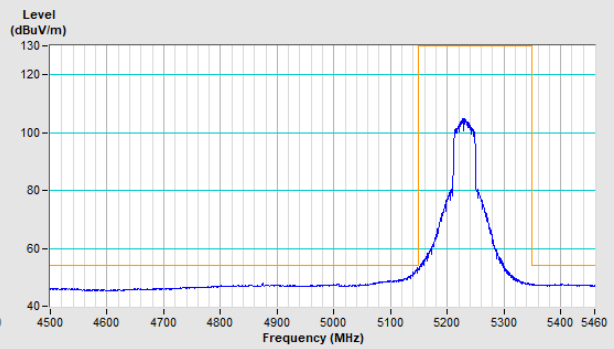


802.11ax (HE40) Channel 46

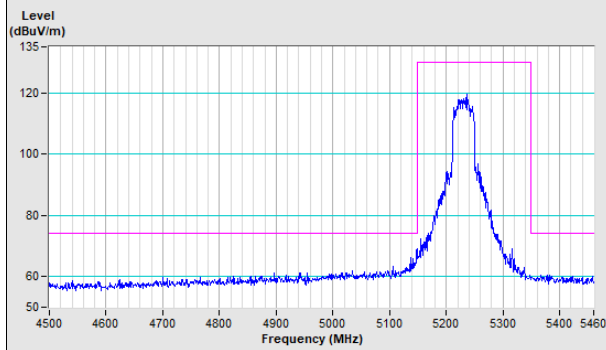
Horizontal (Peak)



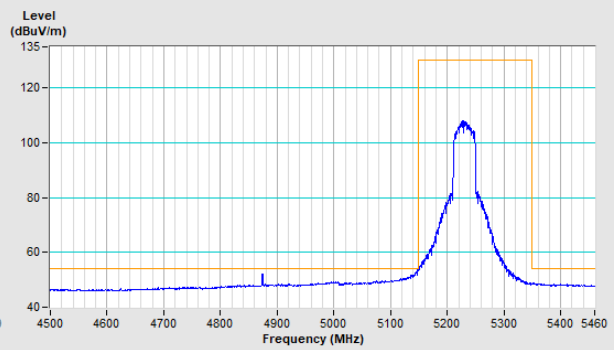
Horizontal (Average)



Vertical (Peak)



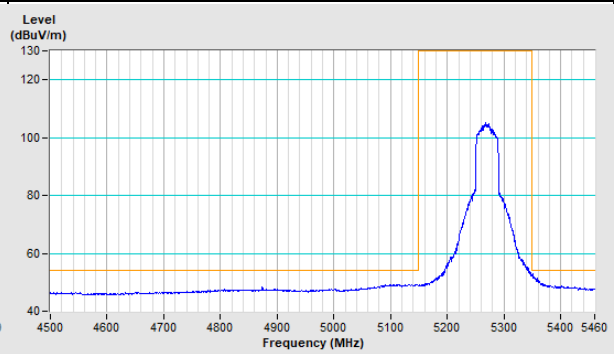
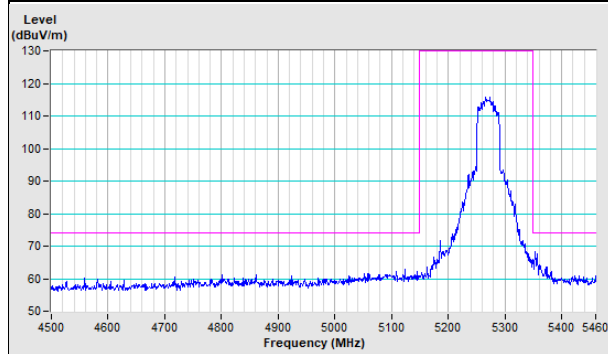
Vertical (Average)



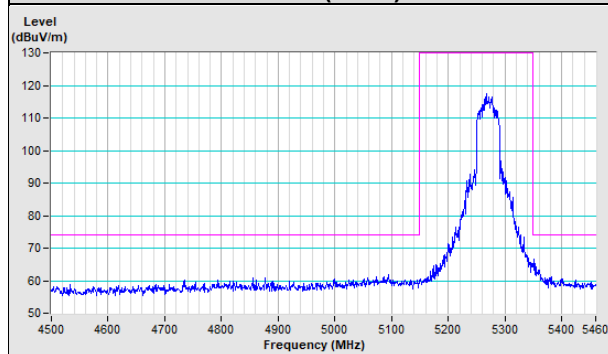


802.11ax (HE40) Channel 54

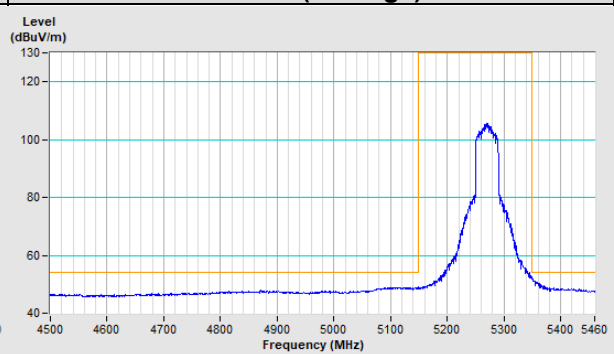
Horizontal (Peak) **Horizontal (Average)**



Vertical (Peak)

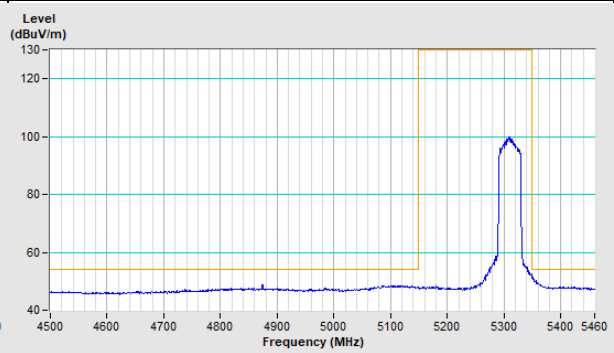
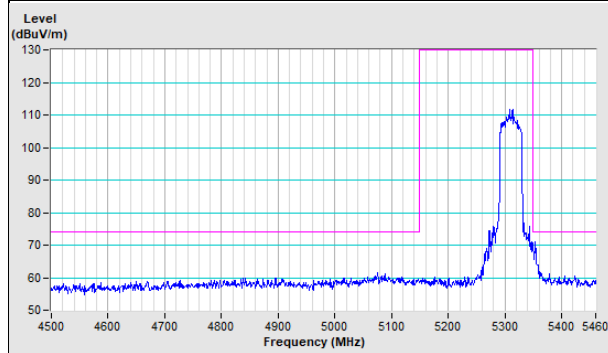


Vertical (Average)

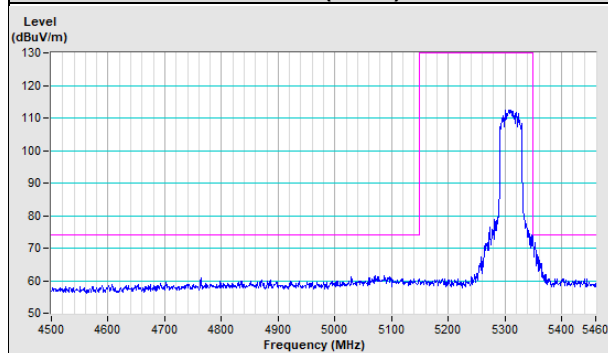


802.11ax (HE40) Channel 62

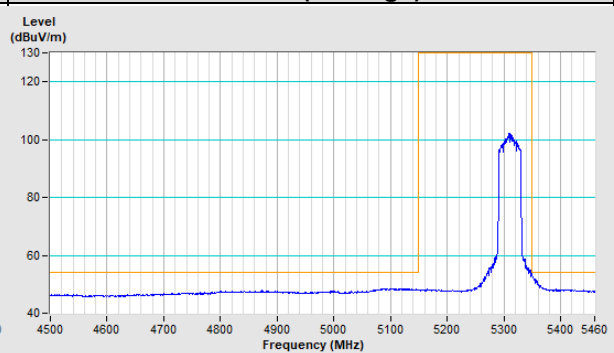
Horizontal (Peak) **Horizontal (Average)**



Vertical (Peak)

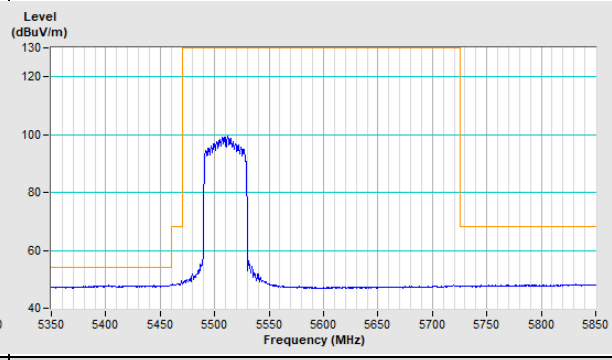
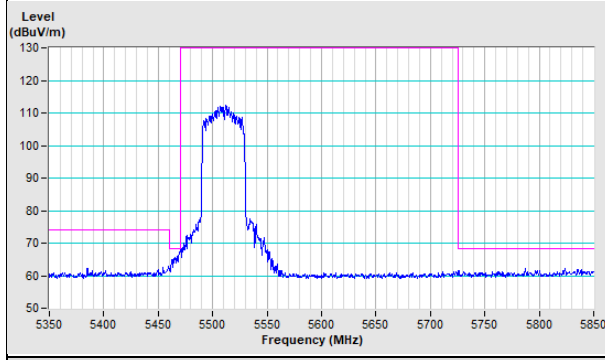


Vertical (Average)



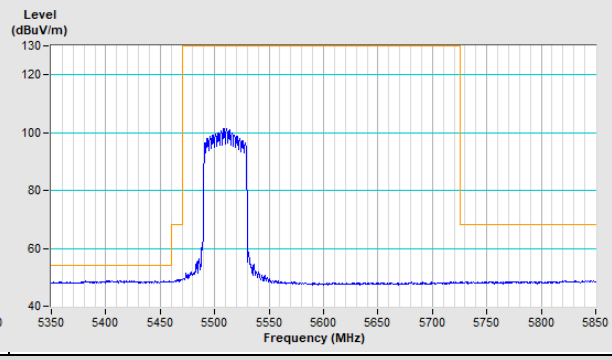
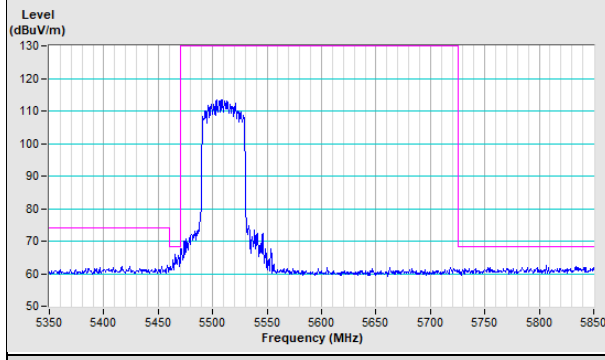
802.11ax (HE40) Channel 102

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



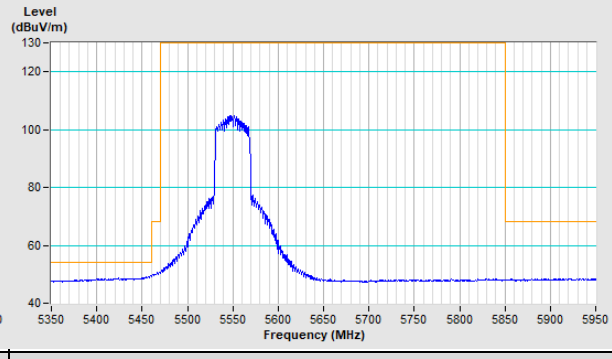
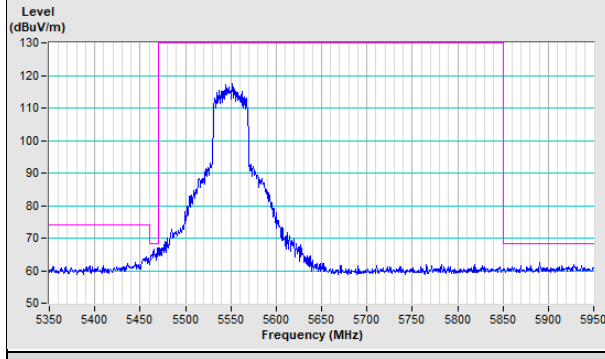
Vertical (Peak)

Vertical (Average)



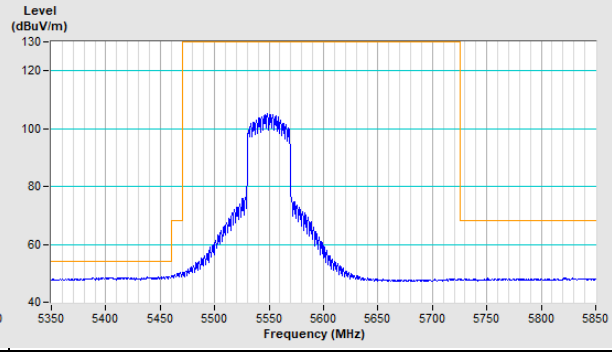
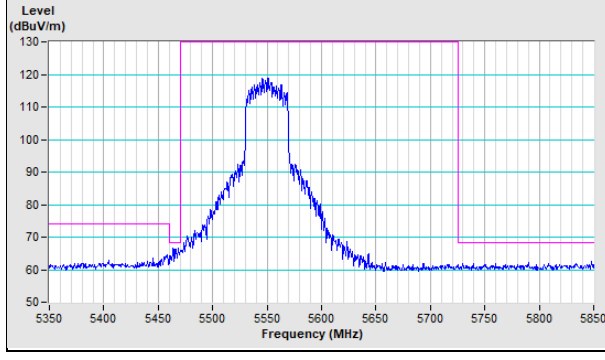
802.11ax (HE40) Channel 110

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

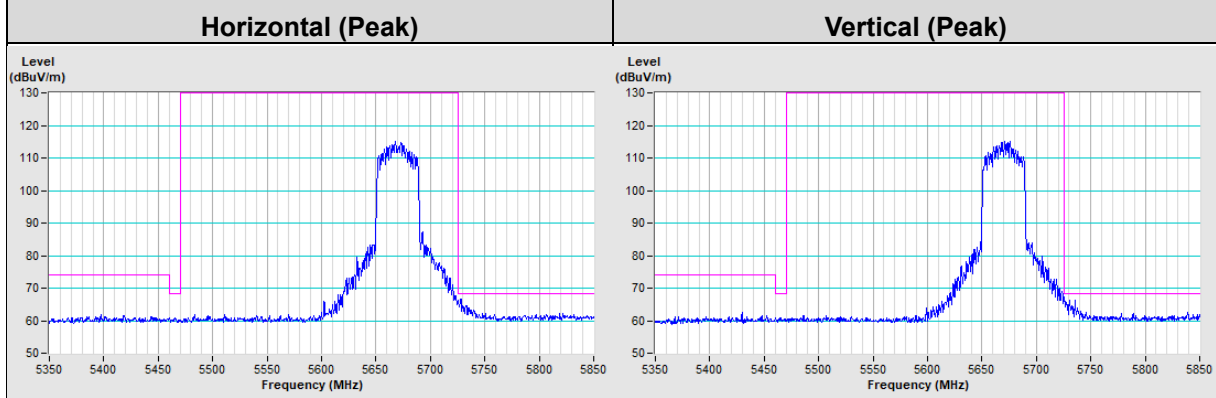


Vertical (Peak)

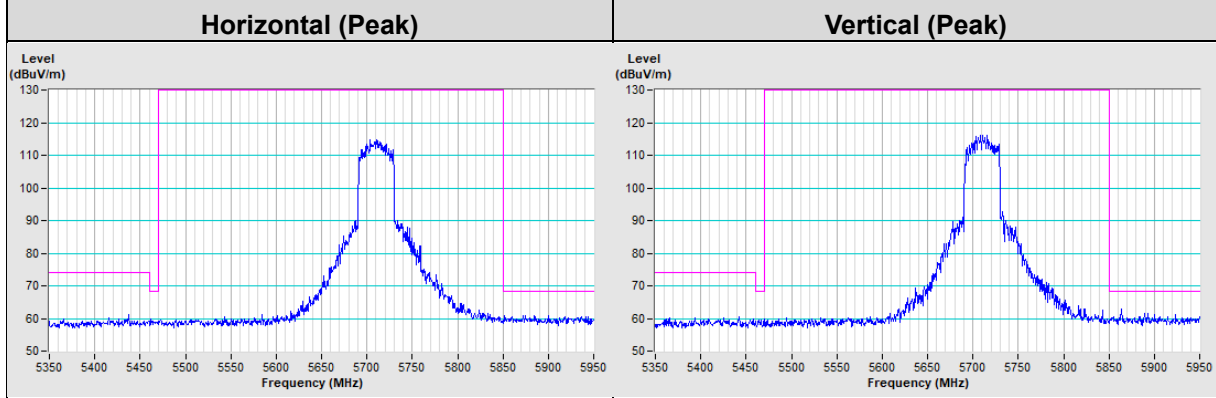
Vertical (Average)



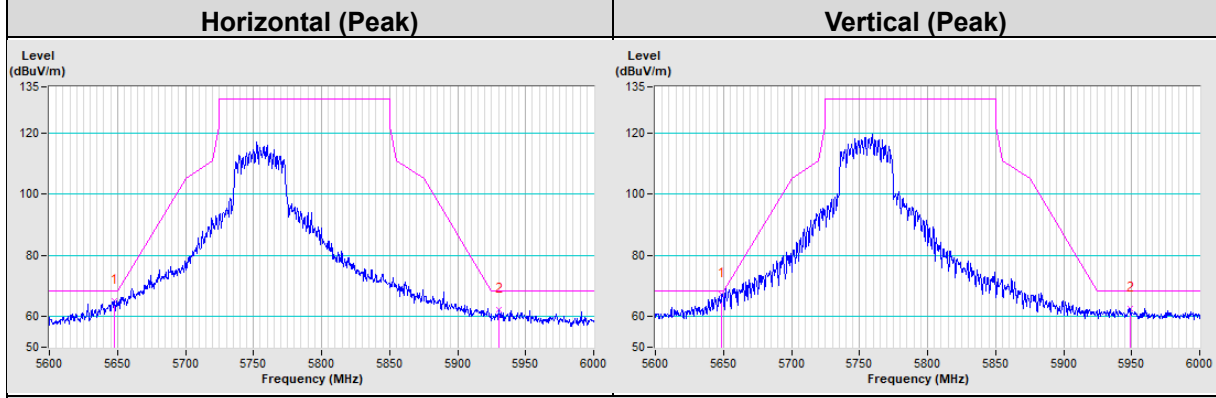
802.11ax (HE40) Channel 134



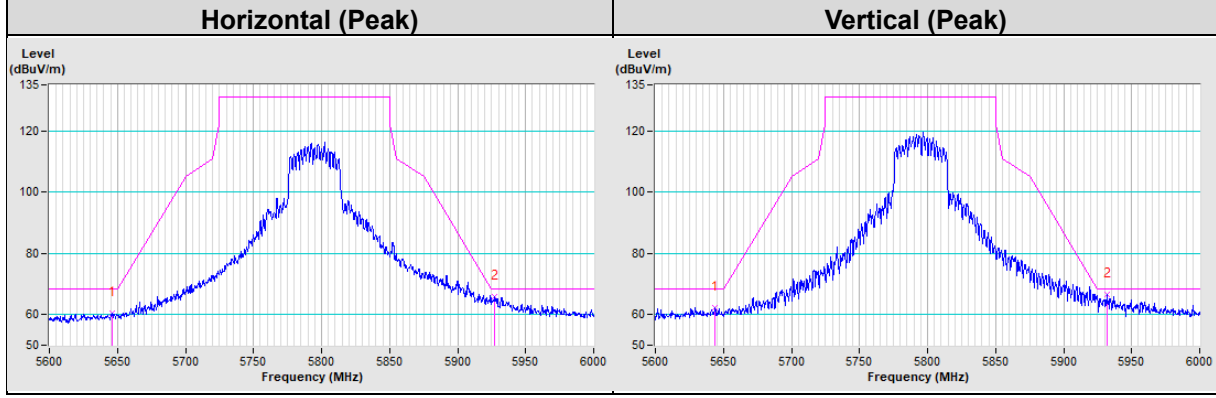
802.11ax (HE40) Channel 142



802.11ax (HE40) Channel 151

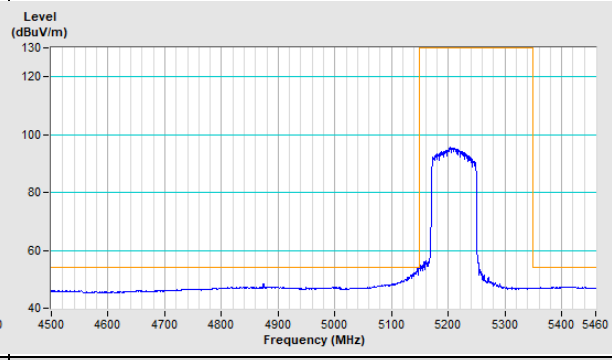
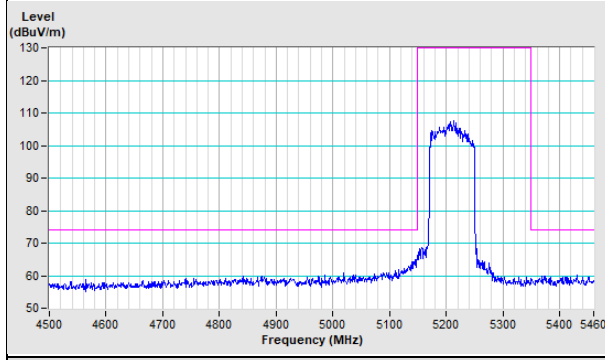


802.11ax (HE40) Channel 159



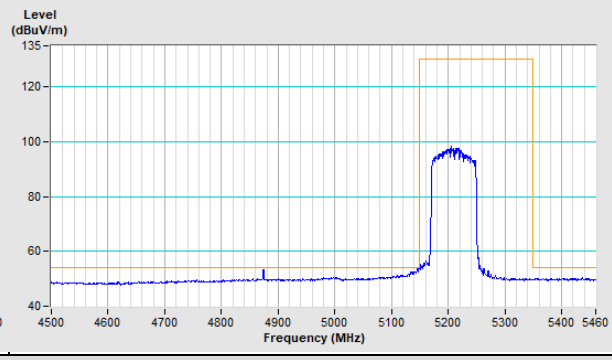
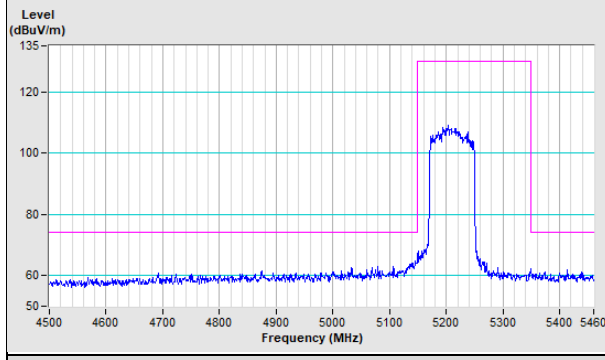
802.11ax (HE80) Channel 42

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



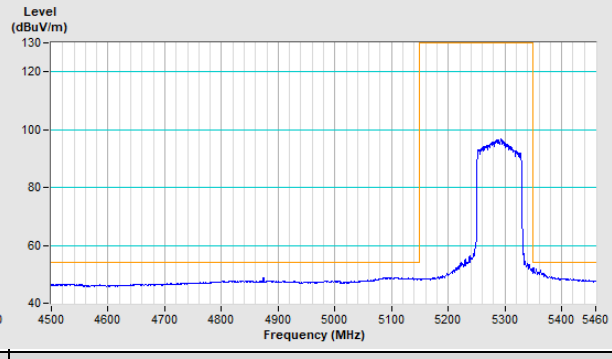
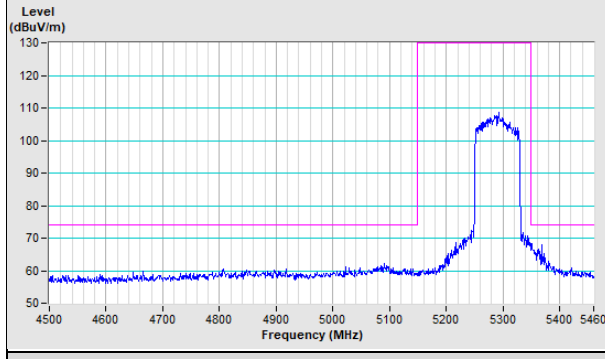
Vertical (Peak)

Vertical (Average)



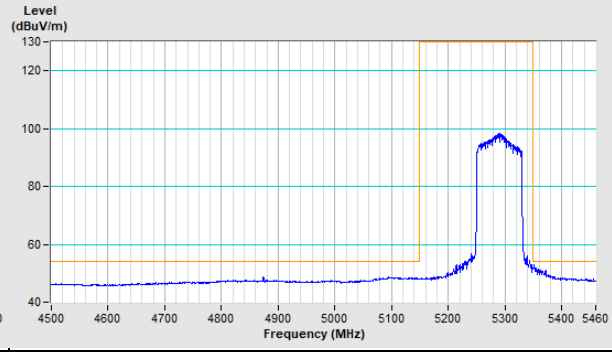
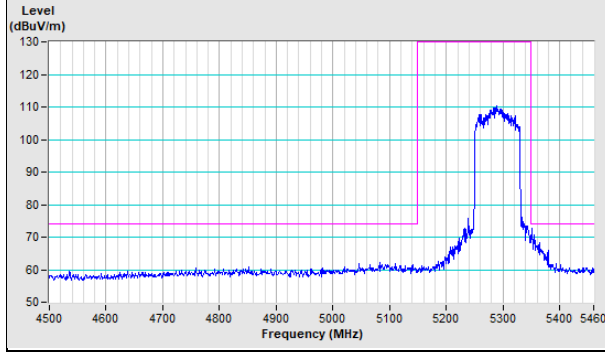
802.11ax (HE80) Channel 58

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



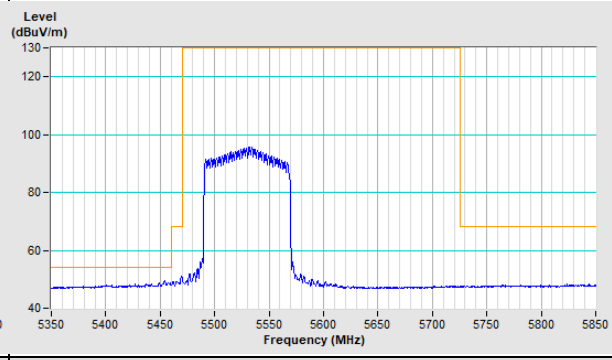
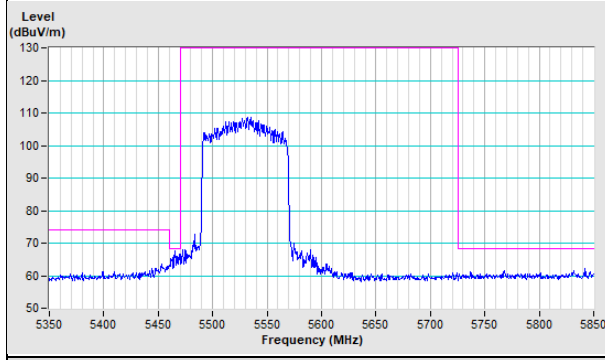
Vertical (Peak)

Vertical (Average)



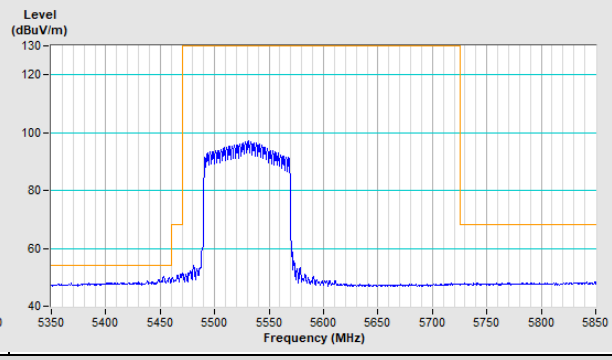
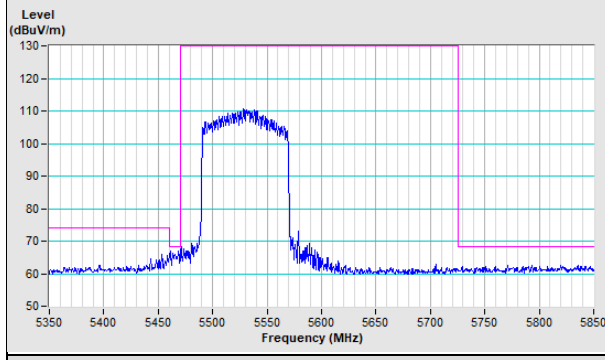
802.11ax (HE80) Channel 106

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



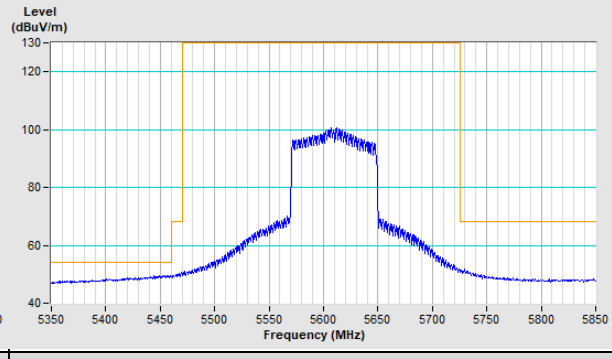
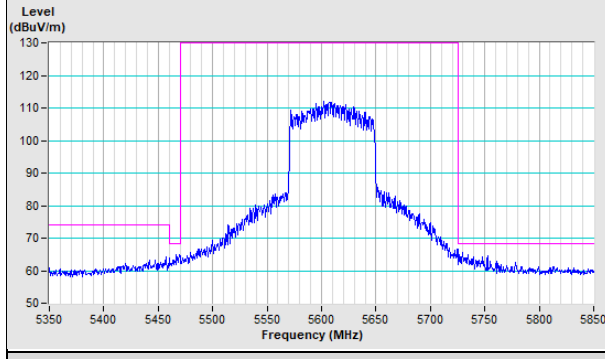
Vertical (Peak)

Vertical (Average)



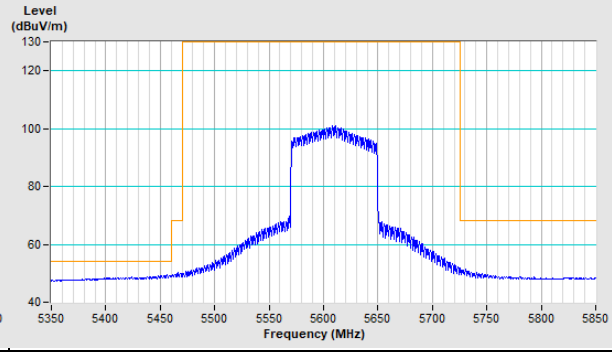
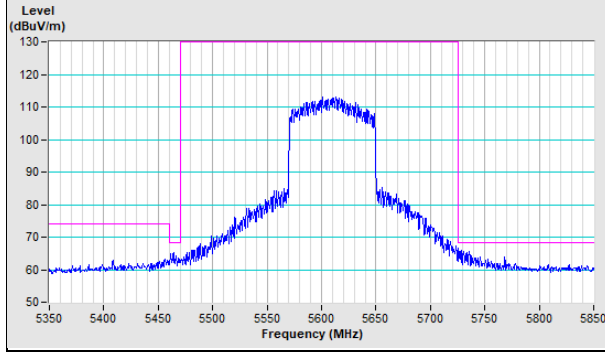
802.11ax (HE80) Channel 122

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

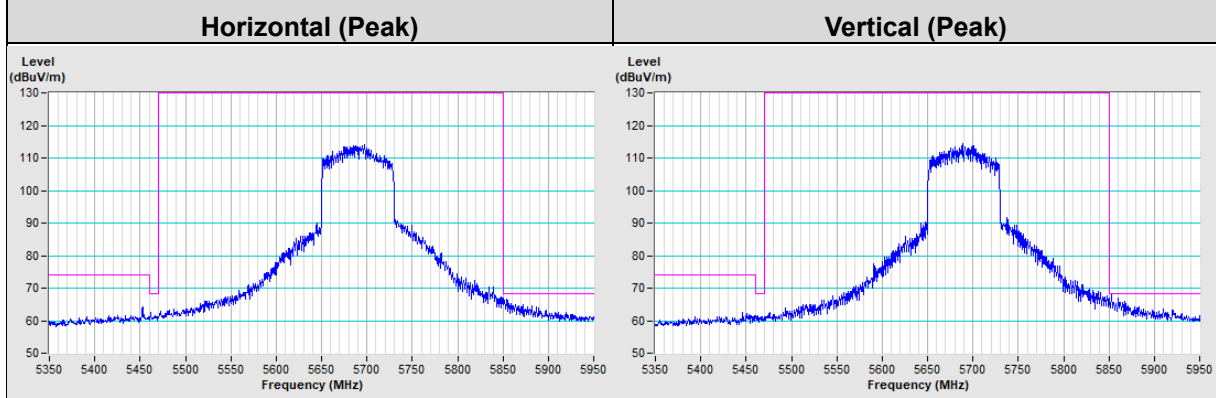


Vertical (Peak)

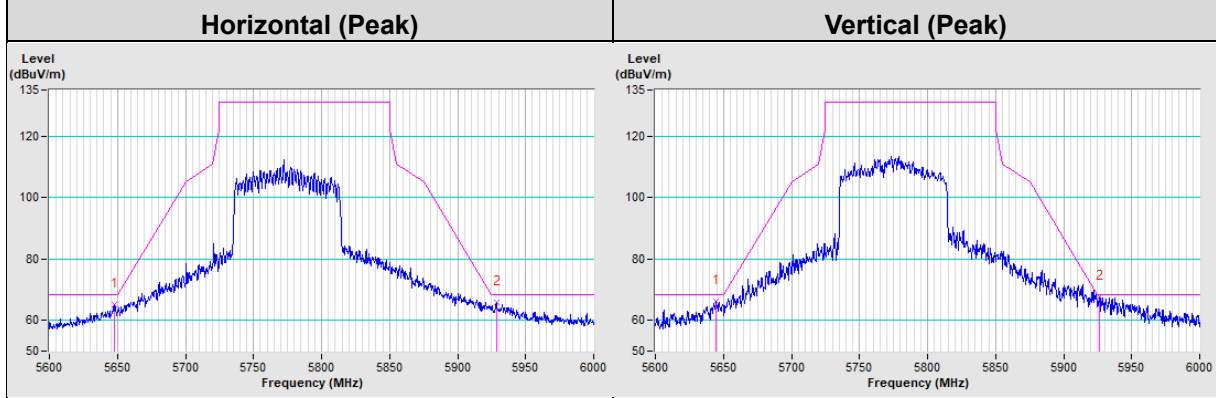
Vertical (Average)



802.11ax (HE80) Channel 138



802.11ax (HE80) Channel 155



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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

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

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