

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFCFFH-WTW-P22060374-1 R1

FCC ID: ACQ-X5042V2

Model No.: X5042

Received Date: 2022/6/12

Test Date: 2022/6/17 ~ 2022/8/13

Issued Date: 2023/2/16

Applicant: ARRIS

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FCC Registration /

Designation Number: 788550 / TW0003

Approved by: Jeremy Lin , **Date:** 2023/2/16
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Prepared by : Pettie Chen / Senior Specialist



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Table of Contents

Release Control Record	4
1 Certificate	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Antenna Description of EUT	8
3.3 Channel List	9
3.4 Test Mode Applicability and Tested Channel Detail	11
3.5 Duty Cycle of Test Signal	13
3.6 Test Program Used and Operation Descriptions	14
3.7 Connection Diagram of EUT and Peripheral Devices	14
3.8 Configuration of Peripheral Devices and Cable Connections	14
4 Test Instruments	15
4.1 26 dB Bandwidth	15
4.2 RF Output Power	15
4.3 Power Spectral Density	15
4.4 6 dB Bandwidth	15
4.5 Occupied Bandwidth	15
4.6 Frequency Stability	16
4.7 AC Power Conducted Emissions	16
4.8 Unwanted Emissions below 1 GHz	17
4.9 Unwanted Emissions above 1 GHz	18
5 Limits of Test Items	19
5.1 26 dB Bandwidth	19
5.2 RF Output Power	19
5.3 Power Spectral Density	19
5.4 6 dB Bandwidth	19
5.5 Occupied Bandwidth	20
5.6 Frequency Stability	20
5.7 AC Power Conducted Emissions	20
5.8 Unwanted Emissions below 1 GHz	20
5.9 Unwanted Emissions above 1 GHz	21
6 Test Arrangements	22
6.1 26 dB Bandwidth	22
6.1.1 Test Setup	22
6.1.2 Test Procedure	22
6.2 RF Output Power	23
6.2.1 Test Setup	23
6.2.2 Test Procedure	23
6.3 Power Spectral Density	24
6.3.1 Test Setup	24
6.3.2 Test Procedure	24
6.4 6 dB Bandwidth	24
6.4.1 Test Setup	24
6.4.2 Test Procedure	24
6.5 Occupied Bandwidth	25
6.5.1 Test Setup	25
6.5.2 Test Procedure	25
6.6 Frequency Stability	25
6.6.1 Test Setup	25
6.6.2 Test Procedure	25
6.7 AC Power Conducted Emissions	26



6.7.1	Test Setup	26
6.7.2	Test Procedure	26
6.8	Unwanted Emissions below 1 GHz	27
6.8.1	Test Setup	27
6.8.2	Test Procedure	28
6.9	Unwanted Emissions above 1 GHz	29
6.9.1	Test Setup	29
6.9.2	Test Procedure	29
7	Test Results of Test Item	30
7.1	26 dB Bandwidth	30
7.2	RF Output Power	34
7.3	Power Spectral Density	56
7.4	6 dB Bandwidth	63
7.5	Occupied Bandwidth	65
7.6	Frequency Stability	74
7.7	AC Power Conducted Emissions	75
7.8	Unwanted Emissions below 1 GHz	77
7.9	Unwanted Emissions above 1 GHz	79
8	Pictures of Test Arrangements	139
9	Information of the Testing Laboratories	140



Release Control Record

Issue No.	Description	Date Issued
RFCFFH-WTW-P22060374-1	Original release.	2022/10/28
RFCFFH-WTW-P22060374-1 R1	Revise FCC ID	2023/2/16

1 Certificate

Product: WiFi extender

Brand: Arris

Test Model: X5042

Sample Status: Engineering sample

Applicant: ARRIS

Test Date: 2022/6/17 ~ 2022/8/13

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

Measurement ANSI C63.10-2013

procedure: KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	Pass	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(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 -7.80 dB at 0.44177 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -2.2 dB at 43.58 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 17355.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.79 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.6 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 extender
Brand	Arris
Test Model	X5042
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n (HT20/40): up to MCS31 802.11ac (VHT20/40/80): up to MCS9 802.11ax: up to MCS11
Operating Frequency	5.18 GHz ~ 5.25 GHz 5.25 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT160), 802.11ax (HE160): 3
Output Power	CDD Mode 5.18 GHz ~ 5.25 GHz : 577.645 mW (27.62 dBm) 5.25 GHz ~ 5.32 GHz : 219.604 mW (23.42 dBm) 5.5 GHz ~ 5.72 GHz : 208.633 mW (23.19 dBm) 5.745 GHz ~ 5.825 GHz : 472.734 mW (26.75 dBm) Beamforming Mode 5.18 GHz ~ 5.25 GHz : 530.738 mW (27.25 dBm) 5.25 GHz ~ 5.32 GHz : 175.243 mW (22.44 dBm) 5.5 GHz ~ 5.72 GHz : 181.833 mW (22.60 dBm) 5.745 GHz ~ 5.825 GHz : 472.734 mW (26.75 dBm)
EUT Category	Indoor Access Point

Note:

- The EUT contains following accessory devices.

Adapter 1	
Brand	NetBit
Model	NBS12F120100VU
Input Power	100-120Vac, 50-60Hz, 0.3A
Output Power	12.0Vdc, 1.0A
Power Cord	1.8m power cable without core attached on adapter

Adapter 2	
Brand	Asian Power Devices Inc.
Model	WB-12G12FU
Input Power	100-240Vac, 50-60Hz, 0.3A Max
Output Power	12Vdc, 1A
Power Cord	1.8m power cable with 1 core attached on adapter

- 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.
- The EUT device modulation technique OFDMA does not support partial RUs (resource units).

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Type	PCB					
Connector	i-pex(MHF)					
Antenna	DB1 (dBi)	DB2 (dBi)	5G2 (dBi)	5G1 (dBi)	Peak Gain(dBi) for each band	Directional Gain with correlated signal(dBi)
2.4G	3.72	3.33			3.72	5.95
5G B1	3.95	3.83	3.88	3.87	3.95	7.16
5G B2	4.35	3.92	3.78	4.21	4.35	7.39
5G B3	4.62	4	4	4.3	4.62	7.11
5G B4	4.44	4.41	3.59	4.09	4.44	6.71

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

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ac (VHT160)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE160)	4TX	4RX

Note:

- All of modulation mode support beamforming function except 802.11a modulation mode.
- The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz, 160 MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz, 160 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 ~ 5320 MHz

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

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

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

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

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

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

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

Channel	Frequency
50	5250 MHz

FOR 5500 ~ 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		

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

Channel	Frequency
114	5570 MHz

FOR 5745 ~ 5825 MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

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

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	<ol style="list-style-type: none"> The AC Adapter has the following models: NBS12F120100VU / WB-12G12FU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan in these ways and find the worst case as a representative test condition.
Worst Case:	<ol style="list-style-type: none"> AC Adapter Worst Condition: WB-12G12FU The worst case was found when positioned on X-axis.

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

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	802.11a	CDD	40	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11a	CDD	40	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ax (HE80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
	802.11ax (HE160)	CDD	50, 114	BPSK	MCS0
RF Output Power	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	CDD & Beamforming	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	CDD & Beamforming	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	CDD & Beamforming	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD & Beamforming	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD & Beamforming	42, 58, 106, 122, 138, 155	BPSK	MCS0
	802.11ac (VHT160)	CDD & Beamforming	50, 114	BPSK	MCS0
	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

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

3.5 Duty Cycle of Test Signal

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

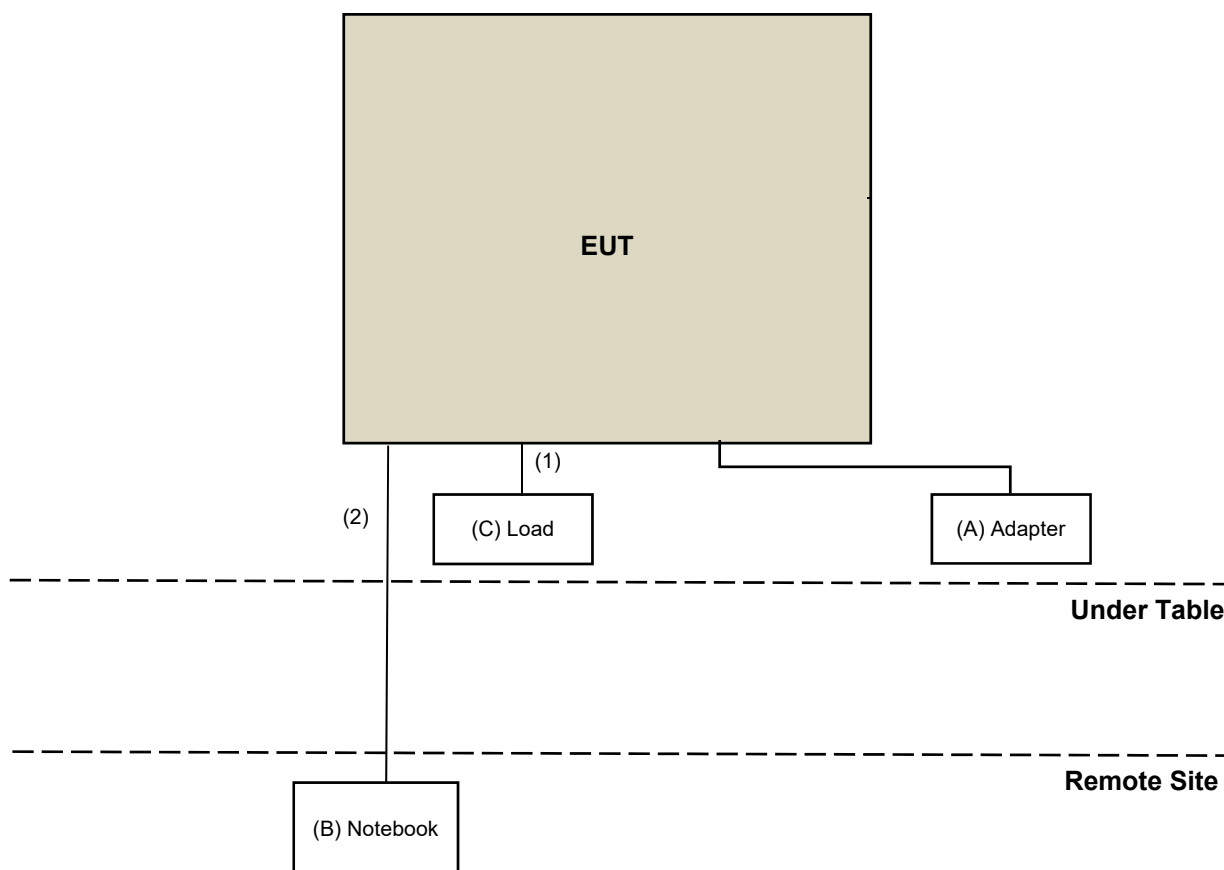
- 802.11a:** Duty cycle = $2.968 \text{ ms} / 2.998 \text{ ms} \times 100\% = 99.0\%$
- 802.11ax (HE20):** Duty cycle = $3.306 \text{ ms} / 3.34 \text{ ms} \times 100\% = 99.0\%$
- 802.11ax (HE40):** Duty cycle = $2.496 \text{ ms} / 2.53 \text{ ms} \times 100\% = 98.7\%$
- 802.11ax (HE80):** Duty cycle = $2.463 \text{ ms} / 2.505 \text{ ms} \times 100\% = 98.3\%$
- 802.11ax (HE160):** Duty cycle = $2.461 \text{ ms} / 2.503 \text{ ms} \times 100\% = 98.3\%$



3.6 Test Program Used and Operation Descriptions

Controlling software accessMTool_REL_3_1_0_3 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Adapter	Asian Power Devices Inc.	WB-12G12FU	004Q09N02	N/A	Supplied by applicant
B	Notebook	Lenovo	L440	R9-0GFJJK	N/A	Provided by Lab
C	Load	N/A	N/A	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	2	No	0	Supplied by applicant
2	RJ-45 Cable	1	10	No	0	Provided by Lab (for RF Setup)

4 Test Instruments

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

4.1 26 dB Bandwidth

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/13

4.2 RF Output Power

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/13

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

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

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/13

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC-LISN SCHWARZBECK MESS- ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH2-Z5	100100	2022/2/17	2023/2/16
	ESH3-Z5	100312	2021/9/17	2022/9/16
RF Coaxial Cable WORKEN	5D-FB	Cable-cond2-01	2021/9/4	2022/9/3
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver R&S	ESR3	102783	2021/12/20	2022/12/19
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2021/8/20	2022/8/19

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2022/8/10

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Bi_Log Antenna Schwarbeck	VULB9168	9168-160	2021/10/28	2022/10/27
Loop Antenna EMCI	EM-6879	269	2021/9/16	2022/9/15
Loop Antenna TESEQ	HLA 6121	45745	2021/7/21	2022/7/20
Pre-amplifier EMCI	EMC001340	980201	2021/9/15	2022/9/14
Preamplifier Agilent	8447D	2944A10638	2022/5/14	2023/5/13
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
RF Coaxial Cable WOKEN	8D-FB	Cable-CH9-01	2022/5/14	2023/5/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101867	2022/1/7	2023/1/6
Test Receiver Agilent	N9038A	MY51210203	2021/9/22	2022/9/21
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 4.
2. Tested Date: 2022/6/17

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	9120D	9120D-1169	2021/11/14	2022/11/13
	BBHA 9170	BBHA9170241	2021/10/26	2022/10/25
Pre-Amplifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Preamplifier Agilent	8449B	3008A02367	2022/2/16	2023/2/15
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2022/1/15	2023/1/14
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2022/1/15	2023/1/14
RF FLITER MICRO-TRONICS	BRM17690	004	2022/1/10	2023/1/9
	BRM50716	060	2022/1/10	2023/1/9
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101867	2022/1/7	2023/1/6
Test Receiver Agilent	N9038A	MY51210203	2021/9/22	2022/9/21
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 4.
2. Tested Date: 2022/8/5 ~ 2022/8/10

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.	

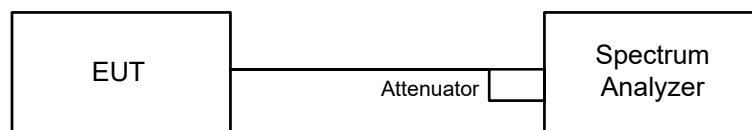
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

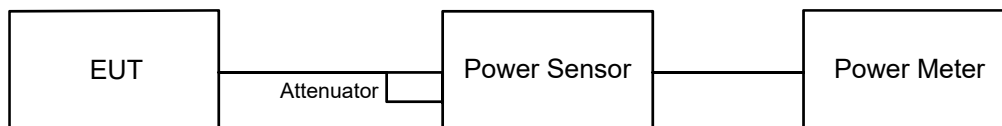


6.1.2 Test Procedure

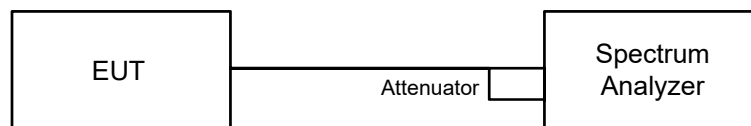
- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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

For channel straddling:

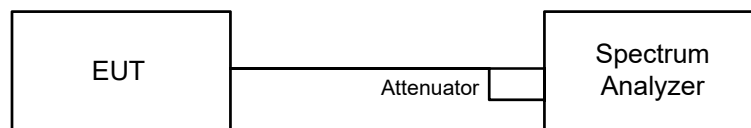
Method SA-1

- 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. Sweep time = auto, trigger set to "free run".
- e. Trace average at least 100 traces in power averaging mode.
- f. Record the max value

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

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

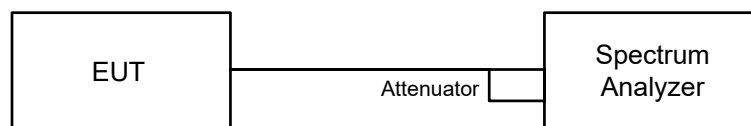
For specified measurement bandwidth 500 kHz:

Method SA-1

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

6.4 6 dB Bandwidth

6.4.1 Test Setup

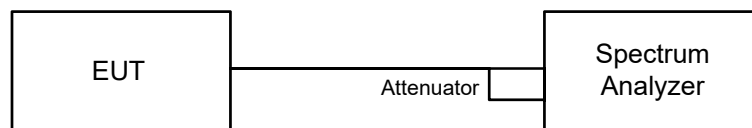


6.4.2 Test Procedure

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

6.5 Occupied Bandwidth

6.5.1 Test Setup

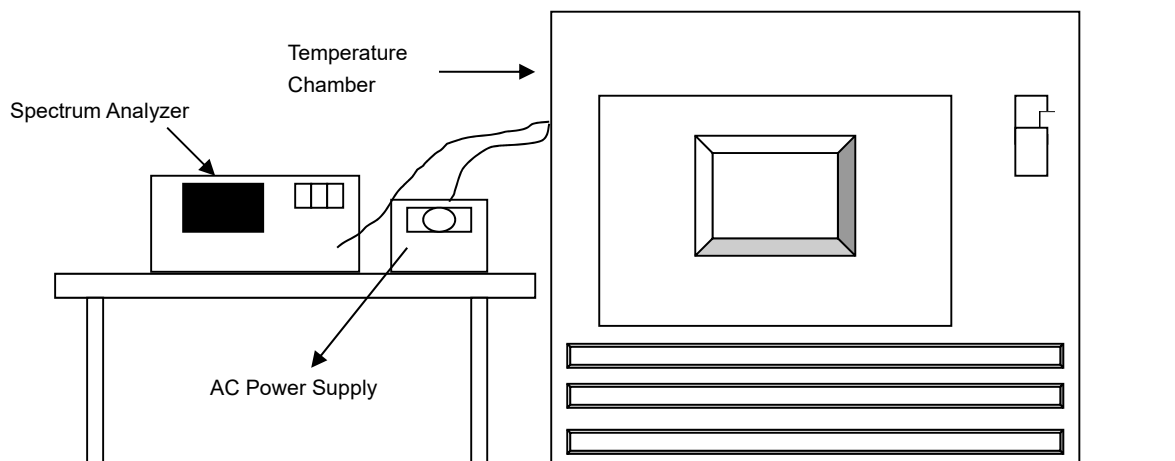


6.5.2 Test Procedure

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

6.6 Frequency Stability

6.6.1 Test Setup

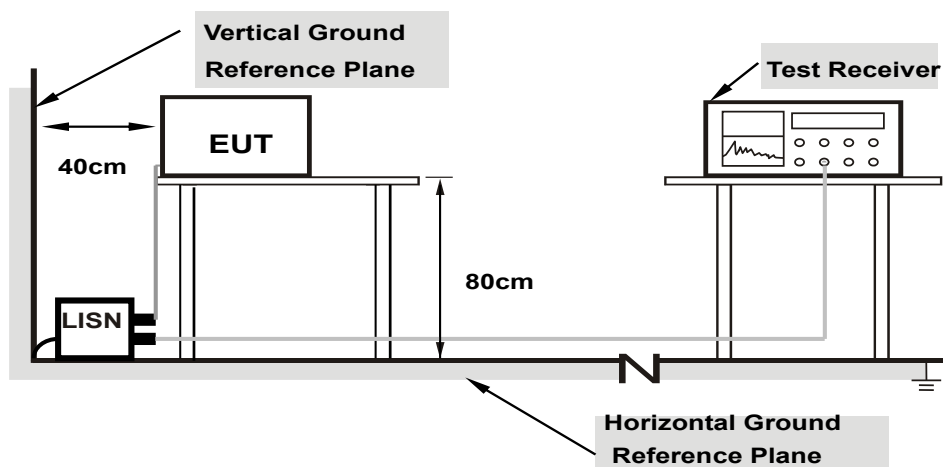


6.6.2 Test Procedure

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

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



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

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

6.7.2 Test Procedure

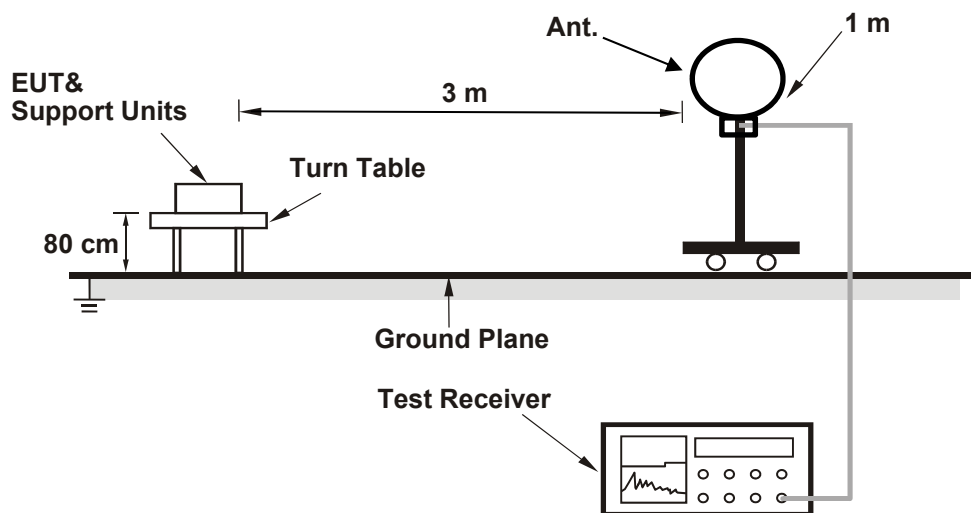
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

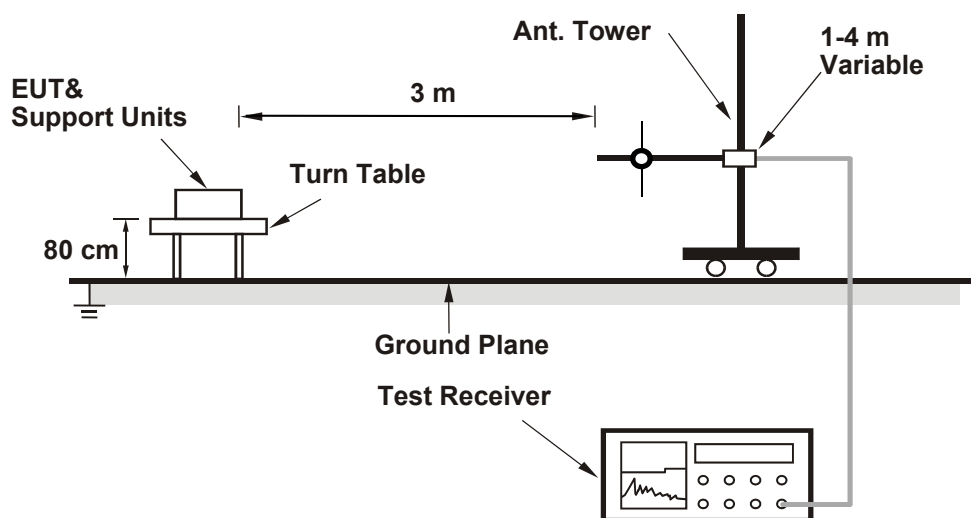
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.8.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

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

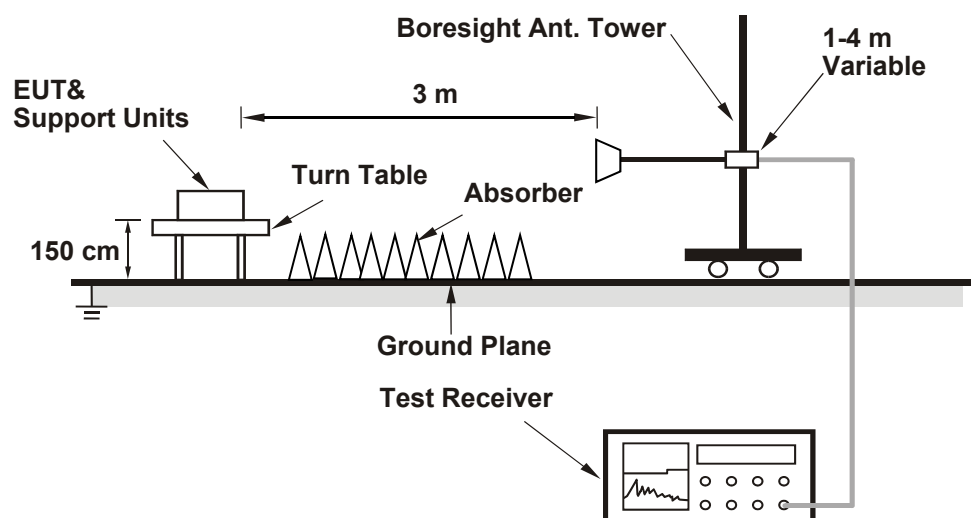
Notes:

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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup

For Radiated emission above 1 GHz



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	Chain 2	Chain 3
52	5260	21.95	21.89	21.92	21.85
60	5300	21.87	21.82	21.88	21.83
64	5320	21.89	21.88	21.87	21.92
100	5500	21.91	21.80	21.90	21.82
116	5580	21.85	21.84	22.02	21.95
140	5700	21.87	21.91	21.88	21.86
144 (U-NII-2C)	5720	16.00	15.92	15.94	15.91

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.85	24.39 > 24
60	5300	21.82	24.38 > 24
64	5320	21.87	24.39 > 24
100	5500	21.80	24.38 > 24
116	5580	21.84	24.39 > 24
140	5700	21.86	24.39 > 24
144 (U-NII-2C)	5720	15.91	23.01 < 24

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

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	22.04	22.09	22.05	22.16
60	5300	22.12	22.11	21.95	22.14
64	5320	22.25	22.11	21.85	22.20
100	5500	21.99	21.88	22.05	22.14
116	5580	22.05	22.18	22.15	22.23
140	5700	21.90	22.07	22.15	22.13
144 (U-NII-2C)	5720	16.09	16.17	16.09	16.14

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	22.04	24.43 > 24
60	5300	21.95	24.41 > 24
64	5320	21.85	24.39 > 24
100	5500	21.88	24.4 > 24
116	5580	22.05	24.43 > 24
140	5700	21.90	24.4 > 24
144 (U-NII-2C)	5720	16.09	23.06 < 24

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

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.85	41.86	42.01	42.17
62	5310	41.84	41.79	41.92	41.94
102	5510	42.07	41.69	42.28	41.95
110	5550	41.98	42.05	42.18	42.06
134	5670	41.80	41.81	42.10	42.08
142 (U-NII-2C)	5710	36.08	35.99	36.20	36.19

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	41.85	27.21 > 24
62	5310	41.79	27.21 > 24
102	5510	41.69	27.2 > 24
110	5550	41.98	27.23 > 24
134	5670	41.80	27.21 > 24
142 (U-NII-2C)	5710	35.99	26.56 > 24

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

802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.65	82.96	82.88	82.80
106	5530	83.26	83.08	83.30	82.85
122	5610	82.93	82.91	83.06	83.29
138 (U-NII-2C)	5690	76.55	76.57	76.62	76.43

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.65	30.17 > 24
106	5530	82.85	30.18 > 24
122	5610	82.91	30.18 > 24
138 (U-NII-2C)	5690	76.43	29.83 > 24

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

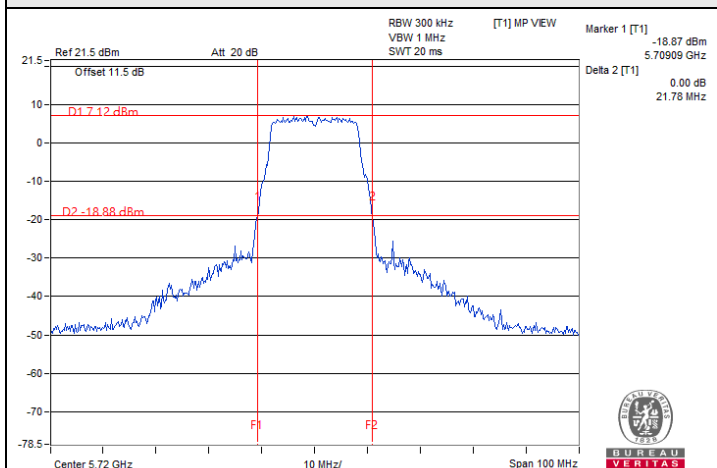
802.11ax (HE160)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-2A)	5250	84.82	84.79	84.62	84.21
114	5570	169.39	169.49	169.35	169.59

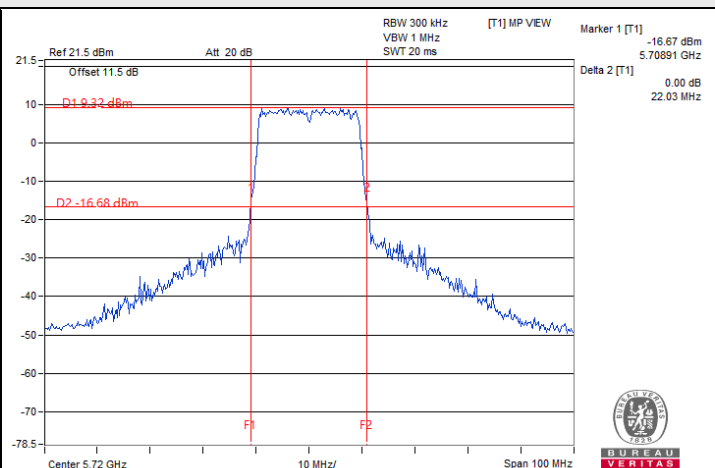
Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
50 (U-NII-2A)	5250	84.21	30.25 > 24
114	5570	169.35	33.28 > 24

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

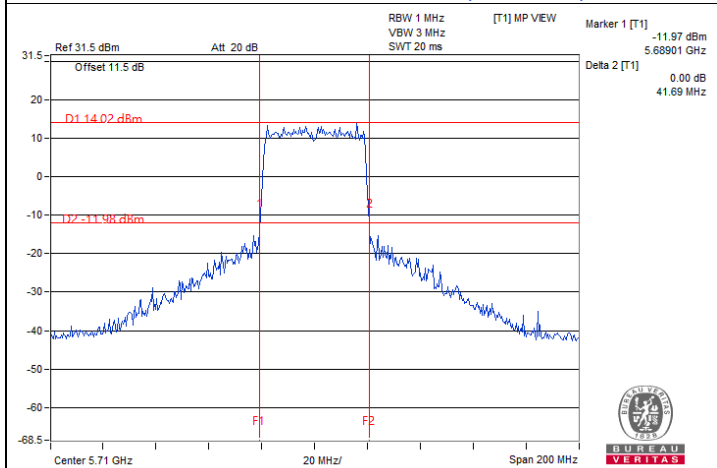
Spectrum Plot of Minimum Value



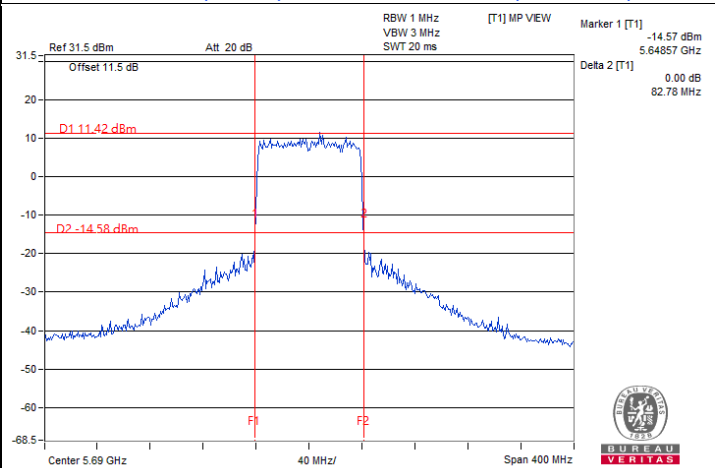
802.11a / Chain3 : CH 144 (U-NII-2C)



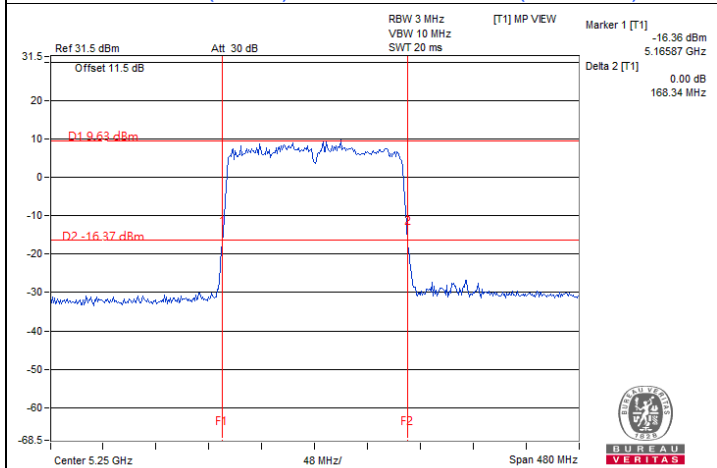
802.11ax (HE20) / Chain0 : CH 144 (U-NII-2C)



802.11ax (HE40) / Chain1 : CH 142 (U-NII-2C)



802.11ax (HE80) / Chain3 : CH 138 (U-NII-2C)



802.11ax (HE160) / Chain3 : CH 50 (U-NII-2A)

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

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	18.58	18.64	18.45	17.93	277.296	24.43	30	Pass
40	5200	21.61	21.69	21.64	21.44	577.645	27.62	30	Pass
48	5240	21.54	21.55	21.66	20.77	551.404	27.41	30	Pass
52	5260	16.71	16.70	16.82	16.72	188.728	22.76	24	Pass
60	5300	16.66	16.70	16.86	16.21	183.43	22.63	24	Pass
64	5320	16.52	16.72	16.87	16.77	188.038	22.74	24	Pass
100	5500	15.32	15.46	15.17	15.44	137.077	21.37	24	Pass
116	5580	16.11	16.54	16.43	15.59	166.092	22.20	24	Pass
140	5700	14.77	14.52	14.72	14.62	116.927	20.68	24	Pass
*144 (U-NII-2C)	5720	14.57	14.19	13.60	13.72	101.343	20.06	23.01	Pass
*144 (U-NII-3)	5720	8.30	7.93	7.38	7.49	24.05	13.81	30	Pass
149	5745	20.46	20.33	20.48	20.10	433.083	26.37	30	Pass
157	5785	20.52	20.36	20.48	20.14	436.325	26.40	30	Pass
165	5825	20.57	20.22	20.44	20.31	437.282	26.41	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the directional gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the directional gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.67	16.28	16.18	16.63	176.435	22.47	30	Pass
40	5200	21.08	21.11	21.10	20.52	498.9	26.98	30	Pass
48	5240	20.93	21.12	21.01	20.52	492.202	26.92	30	Pass
52	5260	16.89	17.00	17.10	16.41	194.022	22.88	24	Pass
60	5300	17.10	17.00	17.18	16.10	194.383	22.89	24	Pass
64	5320	16.91	17.10	17.18	16.41	196.369	22.93	24	Pass
100	5500	16.23	16.10	16.08	16.10	164.003	22.15	24	Pass
116	5580	17.01	17.21	17.10	16.52	198.997	22.99	24	Pass
140	5700	12.21	12.28	12.41	11.63	65.511	18.16	24	Pass
*144 (U-NII-2C)	5720	14.95	14.61	14.21	14.35	113.758	20.56	23.06	Pass
*144 (U-NII-3)	5720	9.71	9.20	8.80	8.90	33.02	15.19	30	Pass
149	5745	20.12	20.02	20.11	19.18	388.623	25.90	30	Pass
157	5785	20.08	20.10	20.21	19.41	396.44	25.98	30	Pass
165	5825	19.02	19.21	19.15	19.08	326.301	25.14	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the directional gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the directional gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the directional gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the directional gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	13.93	14.02	14.10	13.11	96.12	19.83	30	Pass
46	5230	19.89	20.12	20.08	19.21	385.528	25.86	30	Pass
54	5270	17.01	17.13	17.36	17.00	206.445	23.15	24	Pass
62	5310	14.20	14.13	14.28	13.41	100.905	20.04	24	Pass
102	5510	15.01	15.18	15.31	15.48	133.937	21.27	24	Pass
110	5550	16.34	17.10	17.02	16.15	185.899	22.69	24	Pass
134	5670	17.01	17.11	17.02	16.41	195.741	22.92	24	Pass
*142 (U-NII-2C)	5710	15.43	15.39	15.22	14.90	133.677	21.26	24	Pass
*142 (U-NII-3)	5710	5.61	5.58	5.40	5.10	13.957	11.45	30	Pass
151	5755	20.41	20.52	20.31	19.33	415.723	26.19	30	Pass
159	5795	20.52	20.10	20.63	20.21	435.615	26.39	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.71	16.41	16.22	16.72	179.502	22.54	30	Pass
40	5200	21.17	21.28	21.22	20.72	515.661	27.12	30	Pass
48	5240	21.03	21.25	21.15	20.63	505.899	27.04	30	Pass
52	5260	17.00	17.08	17.28	16.55	199.811	23.01	24	Pass
60	5300	17.15	17.13	17.22	16.21	198.028	22.97	24	Pass
64	5320	17.01	17.15	17.28	16.52	200.445	23.02	24	Pass
100	5500	16.41	16.21	16.18	16.22	168.91	22.28	24	Pass
116	5580	17.15	17.31	17.21	16.63	204.334	23.10	24	Pass
140	5700	12.41	12.31	12.52	11.71	67.13	18.27	24	Pass
*144 (U-NII-2C)	5720	15.11	14.75	14.36	14.45	117.439	20.70	23.06	Pass
*144 (U-NII-3)	5720	9.80	9.32	8.91	9.01	33.843	15.29	30	Pass
149	5745	20.31	20.15	20.22	19.31	401.419	26.04	30	Pass
157	5785	20.18	20.21	20.34	19.52	406.866	26.09	30	Pass
165	5825	19.12	19.33	19.25	19.18	334.296	25.24	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the directional gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the directional gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	14.02	14.15	14.28	13.21	98.969	19.95	30	Pass
46	5230	20.02	20.22	20.18	19.36	396.187	25.98	30	Pass
54	5270	17.10	17.42	17.41	17.10	212.861	23.28	24	Pass
62	5310	14.31	14.21	14.44	13.52	103.628	20.15	24	Pass
102	5510	15.15	15.31	15.41	14.52	129.764	21.13	24	Pass
110	5550	16.41	17.15	17.13	16.28	189.736	22.78	24	Pass
134	5670	17.08	17.21	17.10	16.52	199.813	23.01	24	Pass
*142 (U-NII-2C)	5710	15.52	15.50	15.31	15.01	136.785	21.36	24	Pass
*142 (U-NII-3)	5710	5.74	5.76	5.50	5.22	14.391	11.58	30	Pass
151	5755	20.52	20.63	20.41	19.41	425.529	26.29	30	Pass
159	5795	20.61	20.28	20.71	20.31	446.899	26.50	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	13.20	13.12	13.28	12.71	81.35	19.10	30	Pass
58	5290	15.00	15.08	15.21	15.02	128.792	21.10	24	Pass
106	5530	15.16	15.41	15.12	14.28	126.864	21.03	24	Pass
122	5610	16.52	17.01	17.28	16.21	190.348	22.80	24	Pass
*138 (U-NII-2C)	5690	16.60	16.70	16.52	16.49	181.922	22.60	24	Pass
*138 (U-NII-3)	5690	3.21	3.28	3.14	3.02	8.287	9.18	30	Pass
155	5775	20.10	20.18	20.18	19.41	398.09	26.00	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1)	5250	10.14	10.02	9.75	9.81	39.386	15.95	30	Pass
*50 (U-NII-2A)	5250	10.21	10.11	9.74	9.82	39.765	16.00	24	Pass
114	5570	15.10	15.18	15.20	14.82	128.772	21.10	24	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.82	16.52	16.36	16.81	184.183	22.65	30	Pass
40	5200	21.25	21.40	21.30	20.95	530.738	27.25	30	Pass
48	5240	21.12	21.33	21.21	20.84	518.719	27.15	30	Pass
52	5260	17.16	17.18	17.35	16.77	206.098	23.14	24	Pass
60	5300	17.26	17.21	17.34	16.43	203.967	23.10	24	Pass
64	5320	17.12	17.22	17.40	16.66	205.545	23.13	24	Pass
100	5500	16.52	16.36	16.41	16.33	174.832	22.43	24	Pass
116	5580	17.21	17.44	17.29	16.72	208.633	23.19	24	Pass
140	5700	12.53	12.52	12.61	11.87	69.391	18.41	24	Pass
*144 (U-NII-2C)	5720	15.26	14.87	14.42	14.56	120.509	20.81	23.06	Pass
*144 (U-NII-3)	5720	9.92	9.42	9.02	9.10	34.676	15.40	30	Pass
149	5745	20.45	20.31	20.41	19.52	417.753	26.21	30	Pass
157	5785	20.36	20.41	20.63	19.63	425.988	26.29	30	Pass
165	5825	19.36	19.47	19.52	19.31	349.656	25.44	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the directional gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the directional gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	14.18	14.26	14.63	13.58	104.694	20.20	30	Pass
46	5230	20.20	20.35	20.30	19.76	414.881	26.18	30	Pass
54	5270	17.21	17.66	17.56	17.13	219.604	23.42	24	Pass
62	5310	14.60	14.36	14.58	13.82	108.937	20.37	24	Pass
102	5510	15.30	15.52	15.60	14.93	136.954	21.37	24	Pass
110	5550	16.77	17.28	17.34	16.52	200.065	23.01	24	Pass
134	5670	17.10	17.34	17.14	16.70	204.02	23.10	24	Pass
*142 (U-NII-2C)	5710	15.66	15.66	15.49	15.17	141.911	21.52	24	Pass
*142 (U-NII-3)	5710	5.85	5.85	5.65	5.33	14.777	11.70	30	Pass
151	5755	20.72	20.72	20.80	19.64	448.336	26.52	30	Pass
159	5795	20.75	20.72	20.94	20.48	472.734	26.75	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	13.36	13.28	13.41	12.89	84.34	19.26	30	Pass
58	5290	15.10	15.16	15.40	15.10	132.202	21.21	24	Pass
106	5530	15.30	15.50	15.34	14.31	130.541	21.16	24	Pass
122	5610	16.81	17.06	17.35	16.38	196.565	22.94	24	Pass
*138 (U-NII-2C)	5690	16.79	16.82	16.69	16.61	188.317	22.75	24	Pass
*138 (U-NII-3)	5690	3.39	3.39	3.26	3.18	8.564	9.33	30	Pass
155	5775	20.42	20.26	20.26	19.55	412.65	26.16	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 4.44 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1)	5250	10.25	10.17	9.86	9.88	40.402	16.06	30	Pass
*50 (U-NII-2A)	5250	10.30	10.21	9.89	9.95	40.846	16.11	24	Pass
114	5570	15.33	15.28	15.24	14.98	132.745	21.23	24	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 3.95 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 4.35 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 4.62 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.67	16.28	16.18	16.63	176.435	22.47	28.84	Pass
40	5200	21.08	21.11	21.10	20.52	498.9	26.98	28.84	Pass
48	5240	20.93	21.12	21.01	20.52	492.202	26.92	28.84	Pass
52	5260	16.28	16.37	16.50	15.97	170.018	22.30	22.61	Pass
60	5300	16.33	16.38	16.48	15.62	167.343	22.24	22.61	Pass
64	5320	16.29	16.40	16.57	15.78	169.45	22.29	22.61	Pass
100	5500	16.23	16.10	16.08	16.10	164.003	22.15	22.89	Pass
116	5580	16.38	16.59	16.43	15.88	171.735	22.35	22.89	Pass
140	5700	12.21	12.28	12.41	11.63	65.511	18.16	22.89	Pass
*144 (U-NII-2C)	5720	14.95	14.61	14.21	14.35	113.758	20.56	21.95	Pass
*144 (U-NII-3)	5720	9.71	9.20	8.80	8.90	33.02	15.19	29.29	Pass
149	5745	20.12	20.02	20.11	19.18	388.623	25.90	29.29	Pass
157	5785	20.08	20.10	20.21	19.41	396.44	25.98	29.29	Pass
165	5825	19.02	19.21	19.15	19.08	326.301	25.14	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.16 - 6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.39 - 6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.11 - 6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.71 - 6) = 29.29$ dBm.

802.11n (HT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	13.93	14.02	14.10	13.11	96.12	19.83	28.84	Pass
46	5230	19.89	20.12	20.08	19.21	385.528	25.86	28.84	Pass
54	5270	16.09	16.55	16.46	16.01	169.991	22.30	22.61	Pass
62	5310	14.20	14.13	14.28	13.41	100.905	20.04	22.61	Pass
102	5510	15.01	15.18	15.31	15.48	133.937	21.27	22.89	Pass
110	5550	16.18	16.69	16.74	15.93	174.542	22.42	22.89	Pass
134	5670	16.49	16.77	16.55	16.09	177.929	22.50	22.89	Pass
*142 (U-NII-2C)	5710	14.18	14.14	13.97	13.65	100.244	20.01	22.89	Pass
*142 (U-NII-3)	5710	4.36	4.33	4.15	3.85	10.466	10.20	29.29	Pass
151	5755	20.41	20.52	20.31	19.33	415.723	26.19	29.29	Pass
159	5795	20.52	20.10	20.63	20.21	435.615	26.39	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.16 - 6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.39 - 6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.11 - 6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.71 - 6) = 29.29$ dBm.

802.11ac (VHT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.71	16.41	16.22	16.72	179.502	22.54	28.84	Pass
40	5200	21.17	21.28	21.22	20.72	515.661	27.12	28.84	Pass
48	5240	21.03	21.25	21.15	20.63	505.899	27.04	28.84	Pass
52	5260	16.33	16.40	16.56	15.98	171.523	22.34	22.61	Pass
60	5300	16.42	16.42	16.52	15.66	169.394	22.29	22.61	Pass
64	5320	16.33	16.44	16.61	15.87	171.46	22.34	22.61	Pass
100	5500	16.41	16.21	16.18	16.22	168.91	22.28	22.89	Pass
116	5580	16.42	16.64	16.48	15.93	173.622	22.40	22.89	Pass
140	5700	12.41	12.31	12.52	11.71	67.13	18.27	22.89	Pass
*144 (U-NII-2C)	5720	14.61	14.25	13.86	13.95	104.667	20.20	21.95	Pass
*144 (U-NII-3)	5720	9.30	8.82	8.41	8.51	30.162	14.79	29.29	Pass
149	5745	20.31	20.15	20.22	19.31	401.419	26.04	29.29	Pass
157	5785	20.18	20.21	20.34	19.52	406.866	26.09	29.29	Pass
165	5825	19.12	19.33	19.25	19.18	334.296	25.24	29.29	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
2. Directional gain is determined by client
3. For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
4. For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
5. For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].
6. For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.71-6) = 29.29$ dBm.

802.11ac (VHT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	14.02	14.15	14.28	13.21	98.969	19.95	28.84	Pass
46	5230	20.02	20.22	20.18	19.36	396.187	25.98	28.84	Pass
54	5270	16.18	16.62	16.50	16.09	172.728	22.37	22.61	Pass
62	5310	14.31	14.21	14.44	13.52	103.628	20.15	22.61	Pass
102	5510	15.15	15.31	15.41	14.52	129.764	21.13	22.89	Pass
110	5550	16.22	16.73	16.79	15.98	176.358	22.46	22.89	Pass
134	5670	16.57	16.78	16.60	16.13	179.766	22.55	22.89	Pass
*142 (U-NII-2C)	5710	14.27	14.25	14.06	13.76	102.574	20.11	22.89	Pass
*142 (U-NII-3)	5710	4.49	4.51	4.25	3.97	10.792	10.33	29.29	Pass
151	5755	20.52	20.63	20.41	19.41	425.529	26.29	29.29	Pass
159	5795	20.61	20.28	20.71	20.31	446.899	26.50	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (7.16 - 6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.39 - 6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit - (7.11 - 6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.71 - 6) = 29.29$ dBm.

802.11ac (VHT80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	13.20	13.12	13.28	12.71	81.35	19.10	28.84	Pass
58	5290	15.00	15.08	15.21	14.28	123.815	20.93	22.61	Pass
106	5530	15.34	15.65	15.33	14.44	132.843	21.23	22.89	Pass
122	5610	16.27	16.52	16.79	15.84	173.362	22.39	22.89	Pass
*138 (U-NII-2C)	5690	15.60	15.70	15.52	15.49	144.506	21.60	22.89	Pass
*138 (U-NII-3)	5690	2.21	2.28	2.14	2.02	6.583	8.18	29.29	Pass
155	5775	20.10	20.18	20.18	19.41	398.09	26.00	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.71-6) = 29.29$ dBm.

802.11ac (VHT160) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1)	5250	10.14	10.02	9.75	9.81	39.386	15.95	28.84	Pass
*50 (U-NII-2A)	5250	10.21	10.11	9.74	9.82	39.765	16.00	22.61	Pass
114	5570	15.10	15.18	15.20	14.82	128.772	21.10	22.89	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	16.82	16.52	16.36	16.81	184.183	22.65	28.84	Pass
40	5200	21.25	21.40	21.30	20.95	530.738	27.25	28.84	Pass
48	5240	21.12	21.33	21.21	20.84	518.719	27.15	28.84	Pass
52	5260	16.41	16.43	16.60	16.02	173.41	22.39	22.61	Pass
60	5300	16.51	16.46	16.59	15.68	171.617	22.35	22.61	Pass
64	5320	16.37	16.47	16.65	15.91	172.944	22.38	22.61	Pass
100	5500	16.52	16.36	16.41	16.33	174.832	22.43	22.89	Pass
116	5580	16.46	16.69	16.54	15.97	175.543	22.44	22.89	Pass
140	5700	12.53	12.52	12.61	11.87	69.391	18.41	22.89	Pass
*144 (U-NII-2C)	5720	14.76	14.37	13.92	14.06	107.404	20.31	21.95	Pass
*144 (U-NII-3)	5720	9.42	8.92	8.52	8.60	30.905	14.90	29.29	Pass
149	5745	20.45	20.31	20.41	19.52	417.753	26.21	29.29	Pass
157	5785	20.36	20.41	20.63	19.63	425.988	26.29	29.29	Pass
165	5825	19.36	19.47	19.52	19.31	349.656	25.44	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.71-6) = 29.29$ dBm.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	14.18	14.26	14.63	13.58	104.694	20.20	28.84	Pass
46	5230	20.20	20.35	20.30	19.76	414.881	26.18	28.84	Pass
54	5270	16.23	16.68	16.58	16.15	175.243	22.44	22.61	Pass
62	5310	14.60	14.36	14.58	13.82	108.937	20.37	22.61	Pass
102	5510	15.30	15.52	15.60	14.93	136.954	21.37	22.89	Pass
110	5550	16.27	16.78	16.84	16.02	178.308	22.51	22.89	Pass
134	5670	16.60	16.84	16.64	16.20	181.833	22.60	22.89	Pass
*142 (U-NII-2C)	5710	14.41	14.41	14.24	13.92	106.418	20.27	22.89	Pass
*142 (U-NII-3)	5710	4.60	4.60	4.40	4.08	11.081	10.45	29.29	Pass
151	5755	20.72	20.72	20.80	19.64	448.336	26.52	29.29	Pass
159	5795	20.75	20.72	20.94	20.48	472.734	26.75	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.71-6) = 29.29$ dBm.

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	13.36	13.28	13.41	12.89	84.34	19.26	28.84	Pass
58	5290	15.10	15.16	15.40	15.10	132.202	21.21	22.61	Pass
106	5530	15.53	15.78	15.63	14.54	138.576	21.42	22.89	Pass
122	5610	16.31	16.56	16.85	15.88	175.189	22.44	22.89	Pass
*138 (U-NII-2C)	5690	15.54	15.57	15.44	15.36	141.218	21.50	22.89	Pass
*138 (U-NII-3)	5690	2.14	2.14	2.01	1.93	6.422	8.08	29.29	Pass
155	5775	20.42	20.26	20.26	19.55	412.65	26.16	29.29	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.71-6) = 29.29$ dBm.

802.11ax (HE160) Beamforming

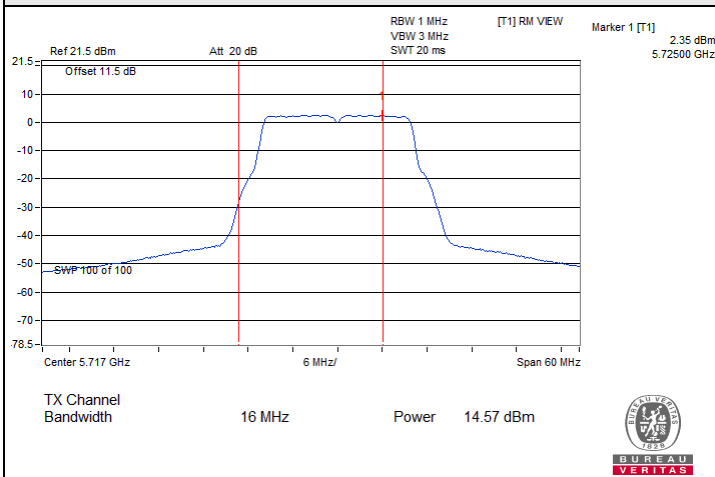
Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
*50 (U-NII-1)	5250	9.25	9.17	8.86	8.88	32.092	15.06	28.84	Pass
*50 (U-NII-2A)	5250	9.30	9.21	8.89	8.95	32.445	15.11	22.61	Pass
114	5570	15.33	15.28	15.24	14.98	132.745	21.23	22.89	Pass

Notes:

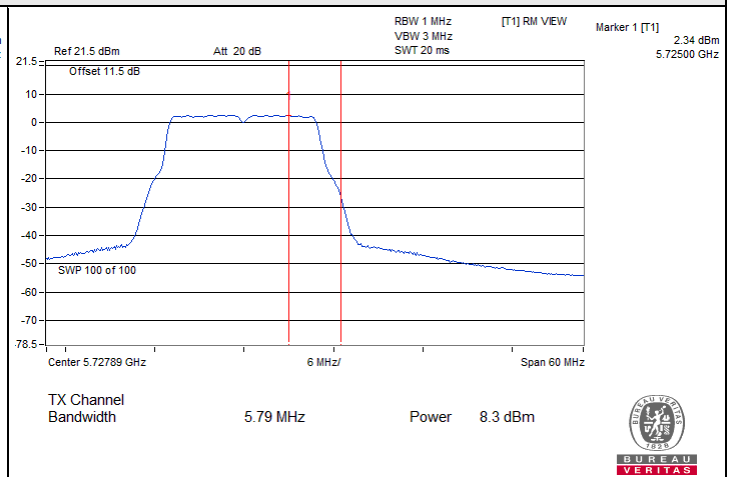
- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is determined by client
- For U-NII-1, the directional gain is 7.16 dBi > 6 dBi, so the output power limit shall be reduced to $30-(7.16-6) = 28.84$ dBm.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.39-6)].
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.11-6)].



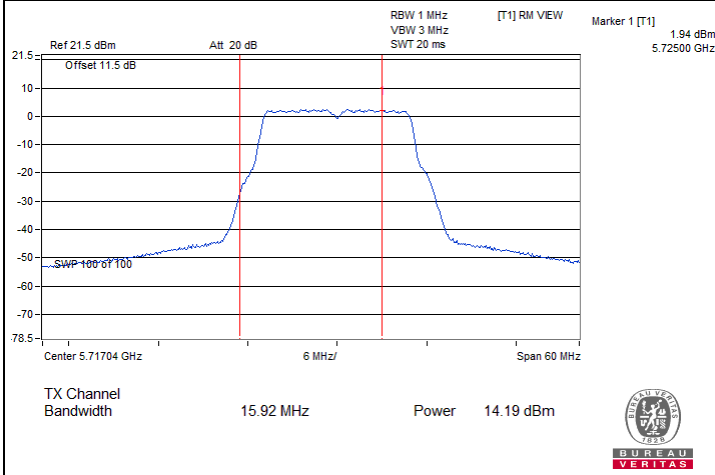
Spectrum Plot for channel straddling



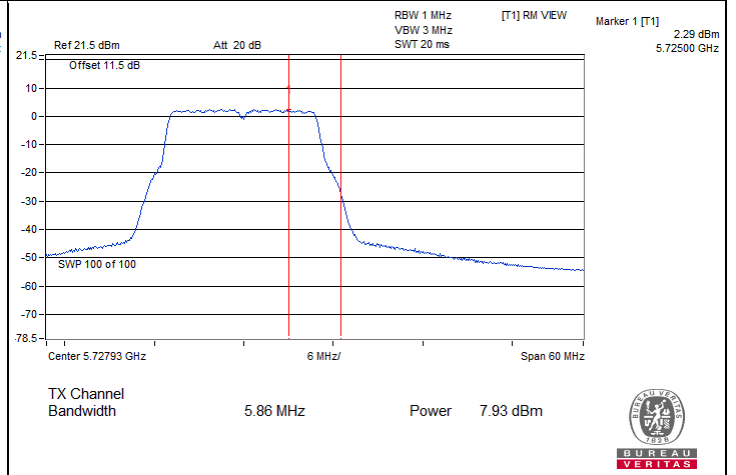
802.11a / Chain 0 : CH 144 (U-NII-2C)



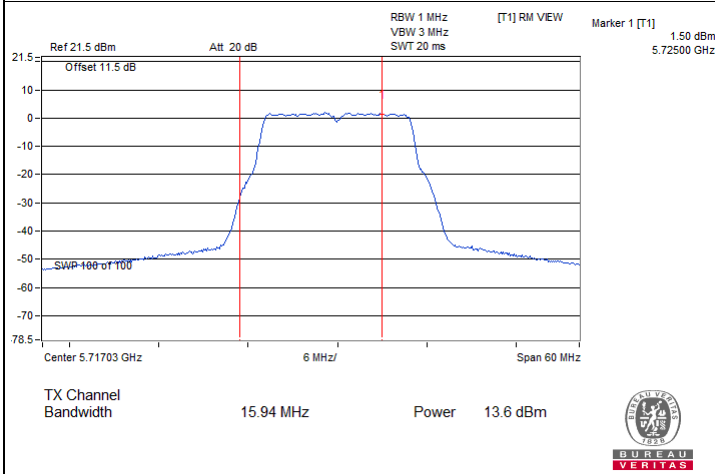
802.11a / Chain 0 : CH 144 (U-NII-3)



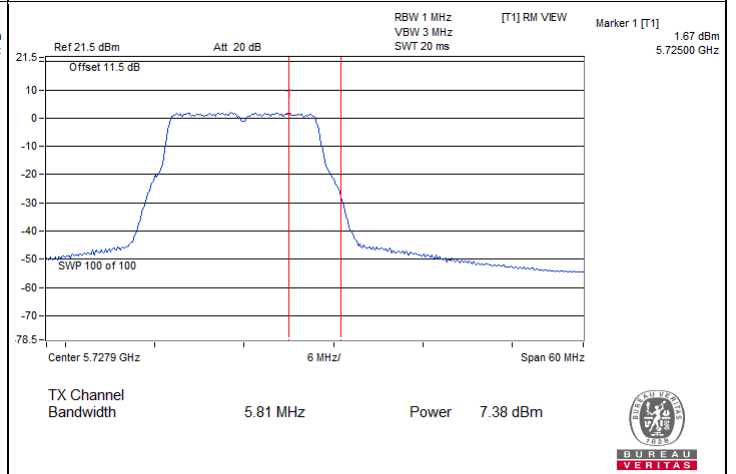
802.11a / Chain 1 : CH 144 (U-NII-2C)



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



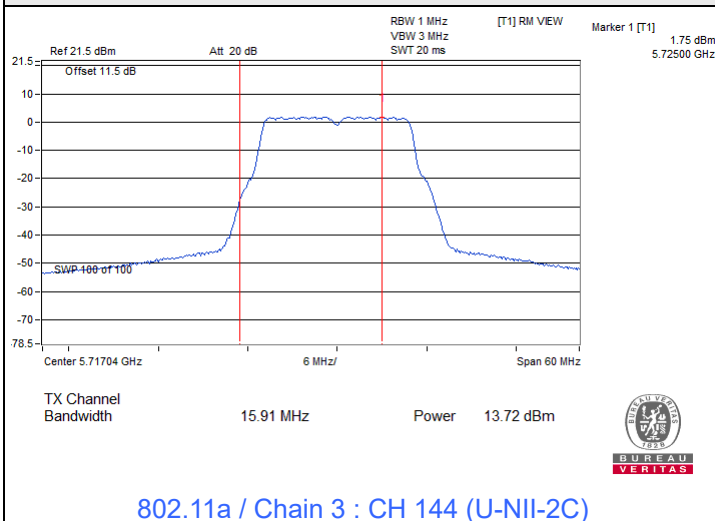
802.11a / Chain 2 : CH 144 (U-NII-2C)



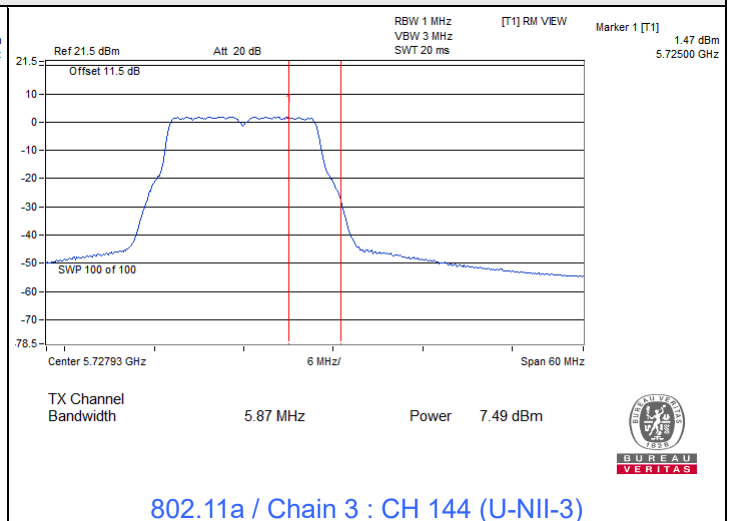
802.11a / Chain 2 : CH 144 (U-NII-3)



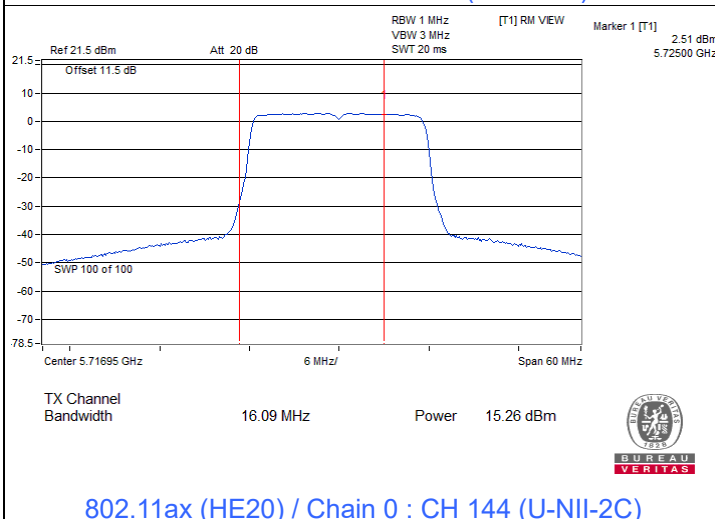
Spectrum Plot for channel straddling



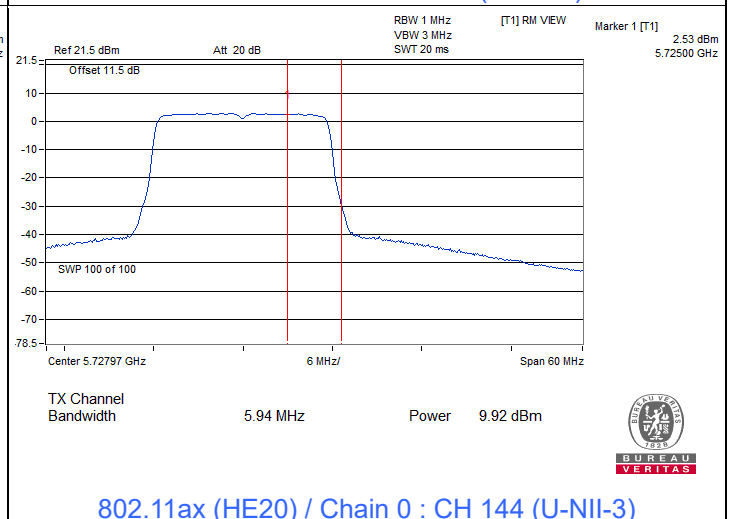
802.11a / Chain 3 : CH 144 (U-NII-2C)



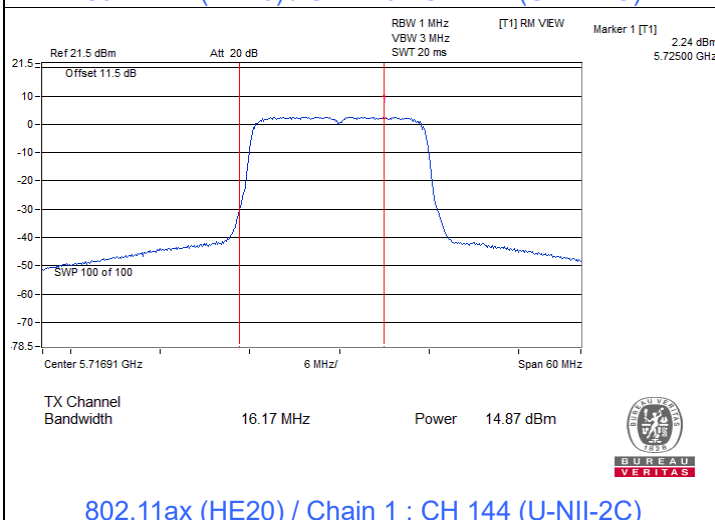
802.11a / Chain 3 : CH 144 (U-NII-3)



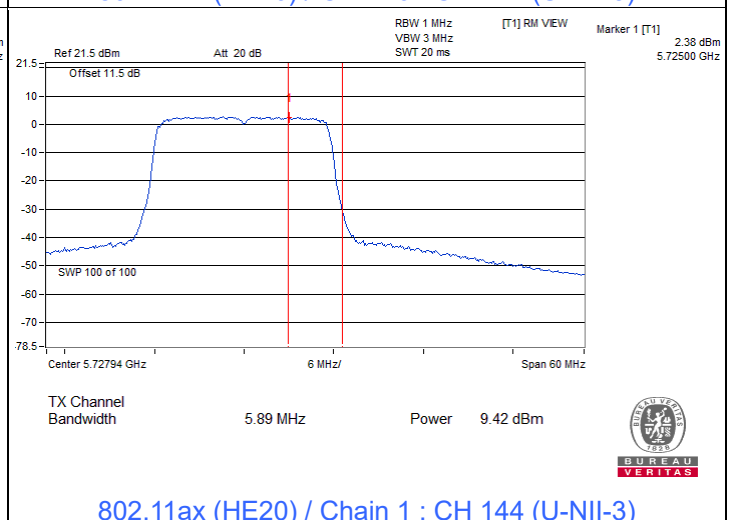
802.11ax (HE20) / Chain 0 : CH 144 (U-NII-2C)



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



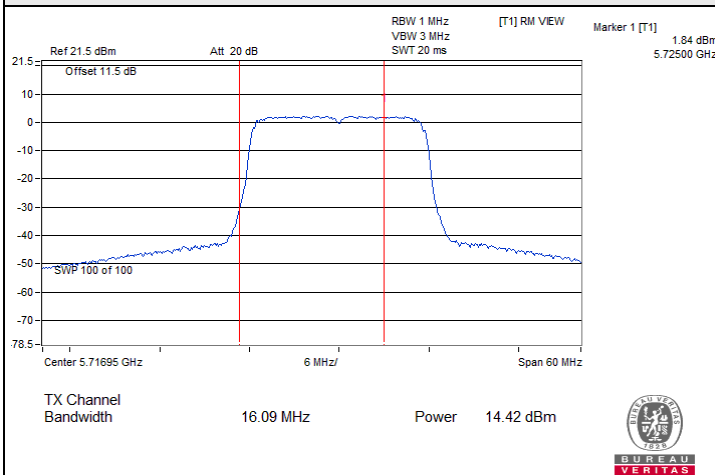
802.11ax (HE20) / Chain 1 : CH 144 (U-NII-2C)



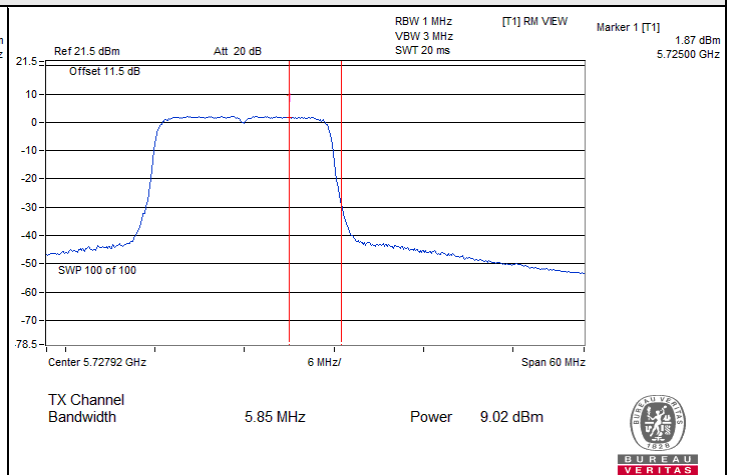
802.11ax (HE20) / Chain 1 : CH 144 (U-NII-3)



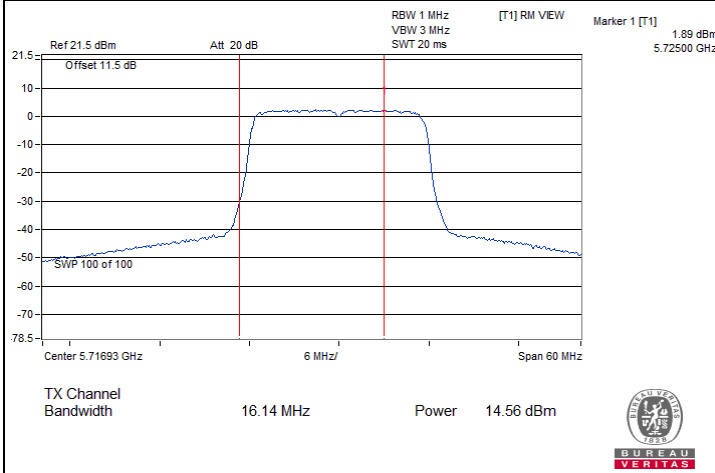
Spectrum Plot for channel straddling



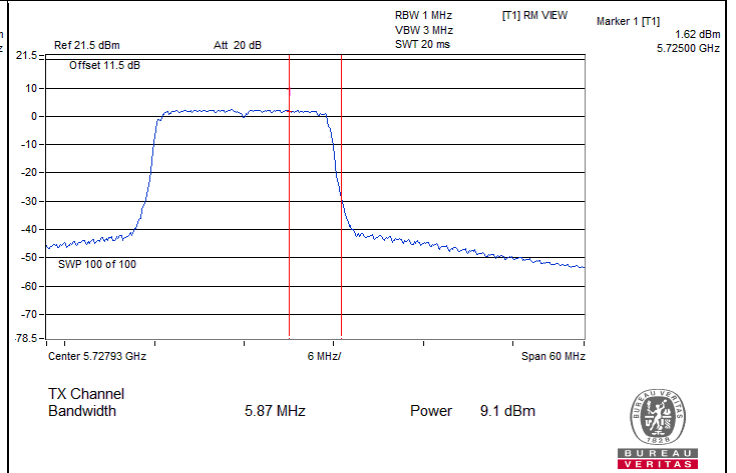
802.11ax (HE20) / Chain 2 : CH 144 (U-NII-2C)



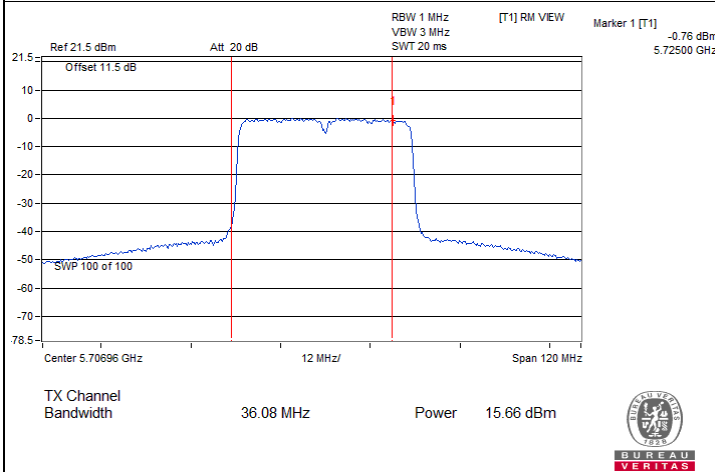
802.11ax (HE20) / Chain 2 : CH 144 (U-NII-3)



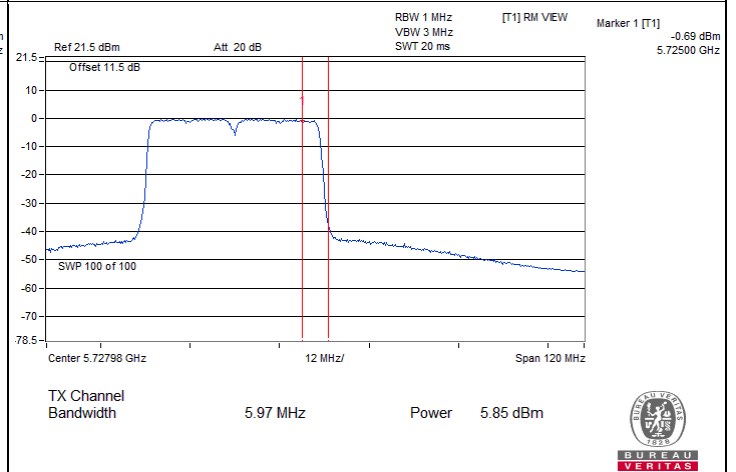
802.11ax (HE20) / Chain 3 : CH 144 (U-NII-2C)



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



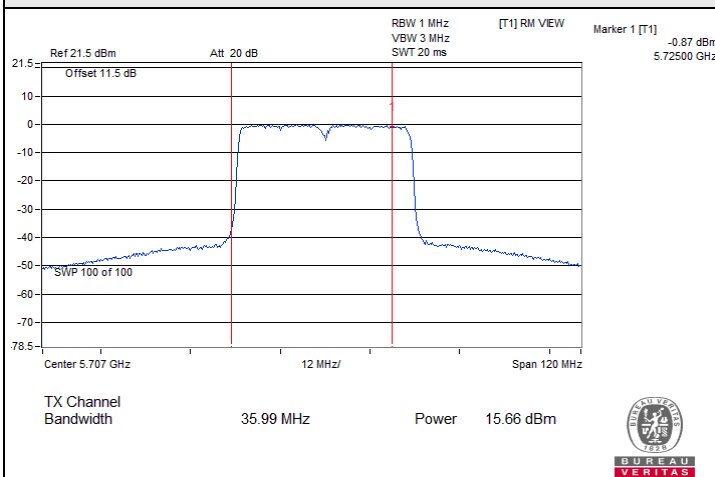
802.11ax (HE40) / Chain 0 : CH 142 (U-NII-2C)



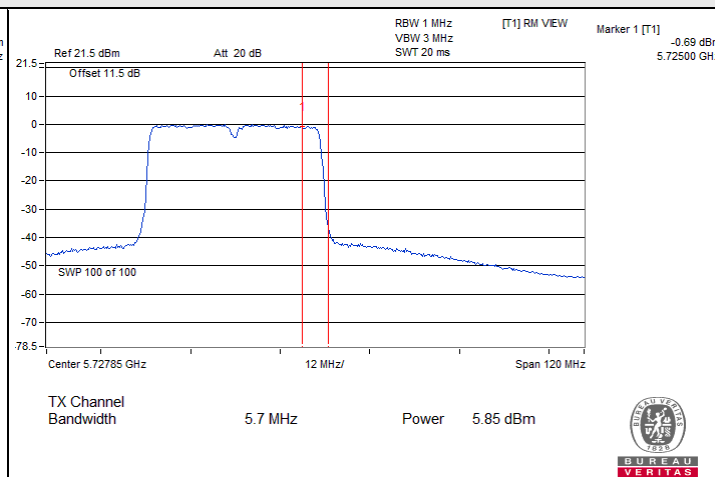
802.11ax (HE40) / Chain 0 : CH 142 (U-NII-3)



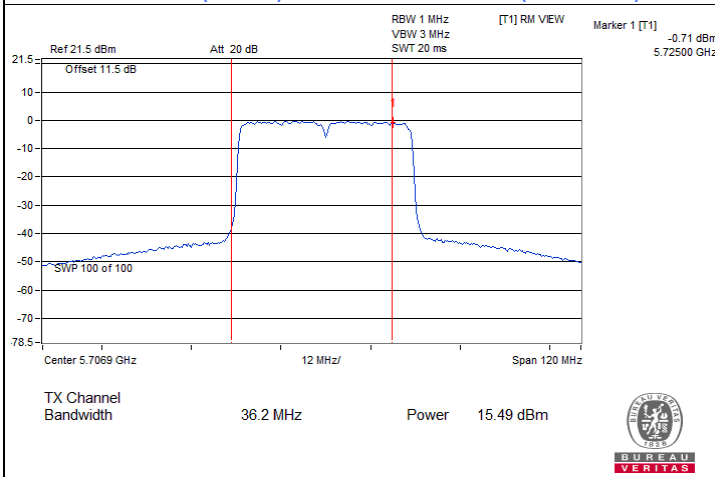
Spectrum Plot for channel straddling



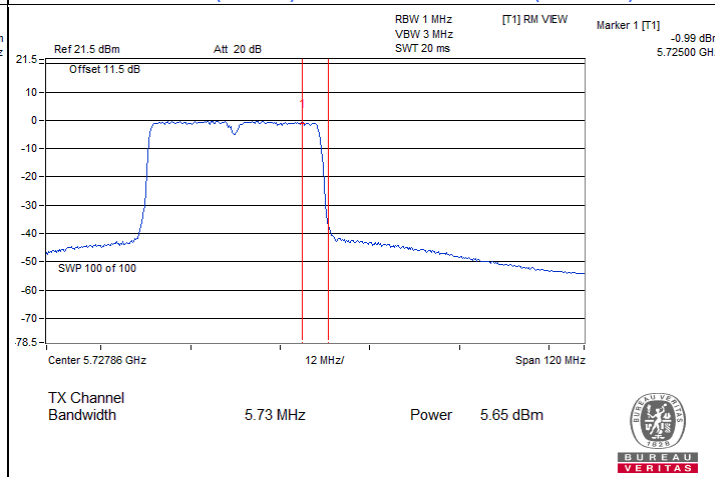
802.11ax (HE40) / Chain 1 : CH 142 (U-NII-2C)



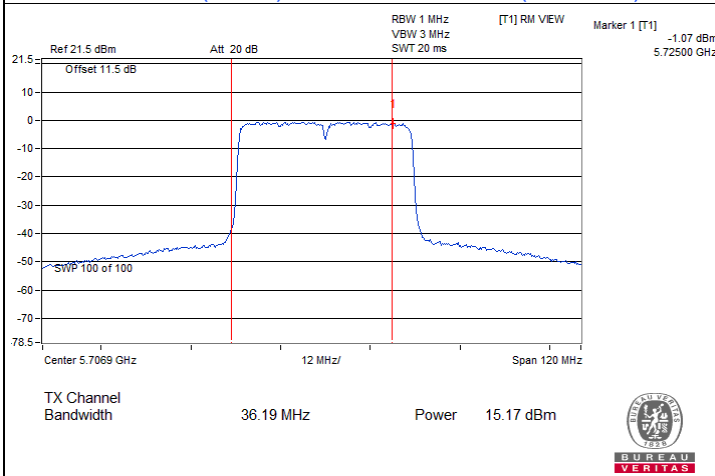
802.11ax (HE40) / Chain 1 : CH 142 (U-NII-3)



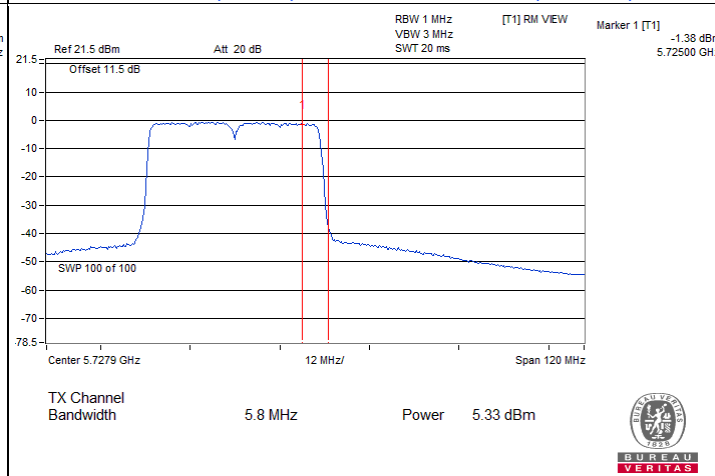
802.11ax (HE40) / Chain 2 : CH 142 (U-NII-2C)



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



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

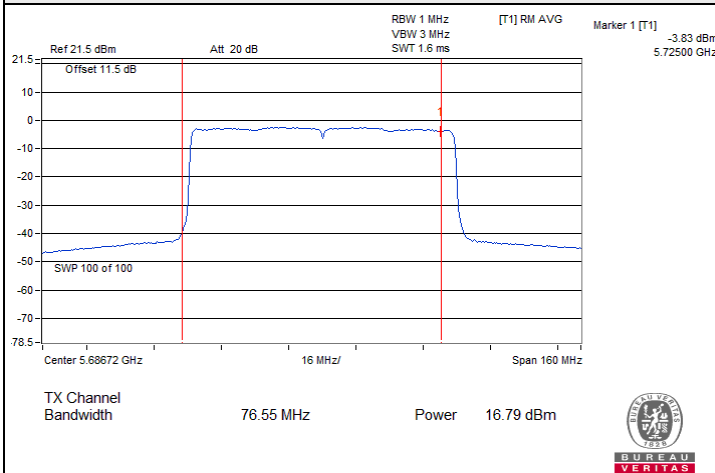


802.11ax (HE40) / Chain 3 : CH 142 (U-NII-3)

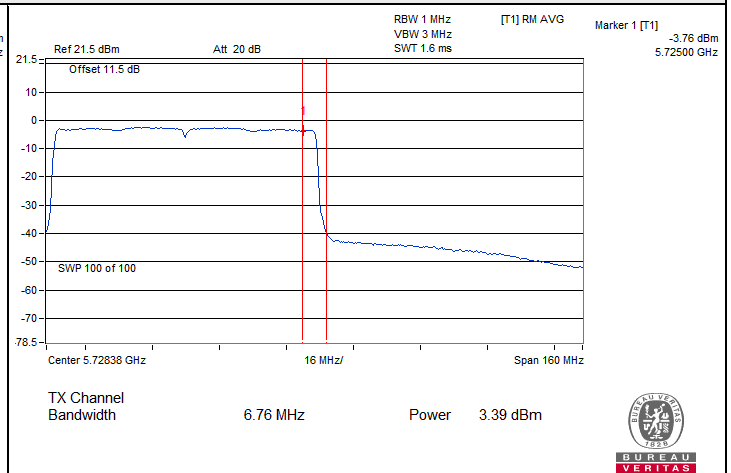


BUREAU VERITAS

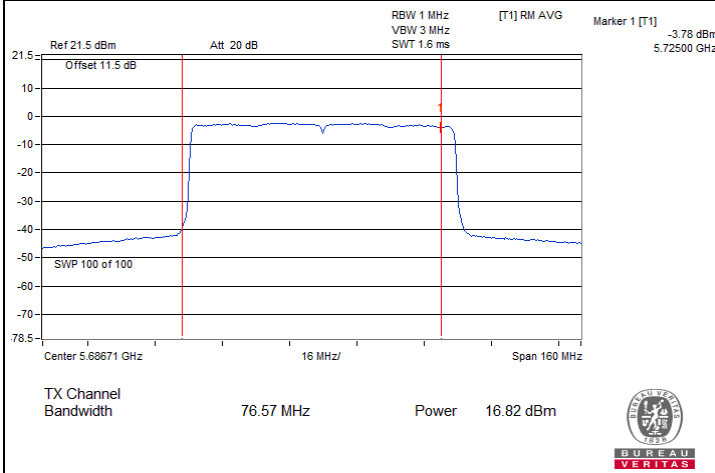
Spectrum Plot for channel straddling



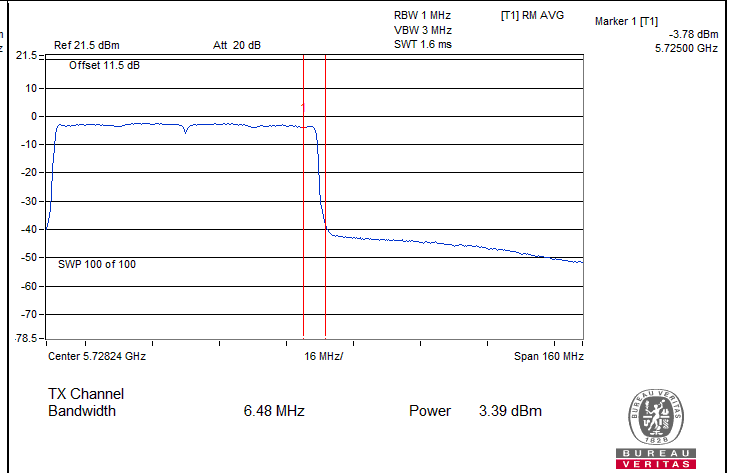
802.11ax (HE80) / Chain 0 : CH 138 (U-NII-2C)



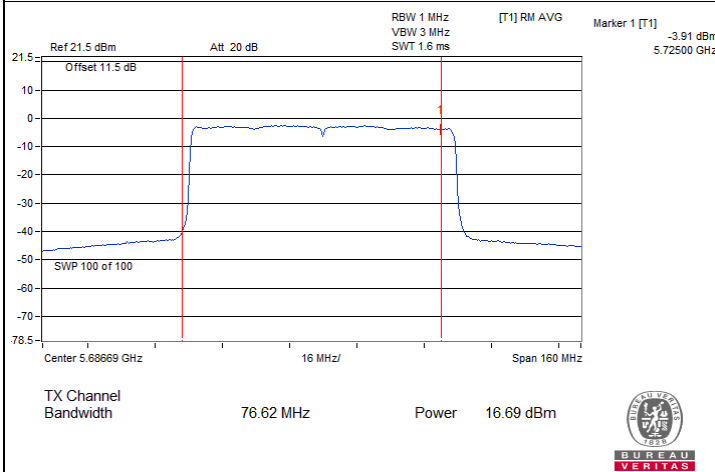
802.11ax (HE80) / Chain 0 : CH 138 (U-NII-3)



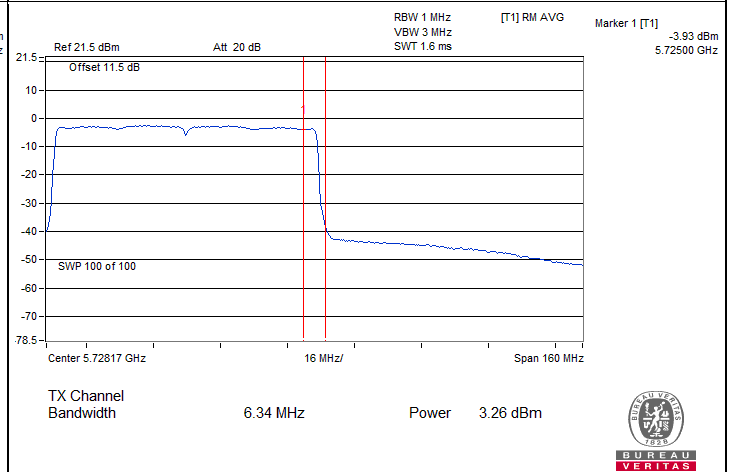
802.11ax (HE80) / Chain 1 : CH 138 (U-NII-2C)



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



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

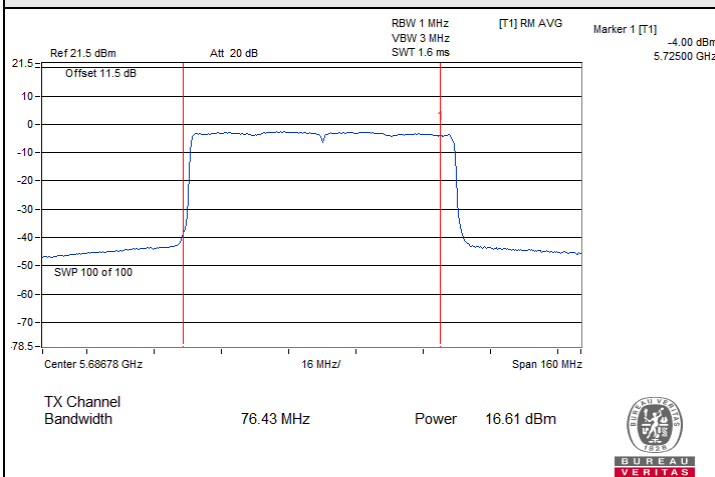


802.11ax (HE80) / Chain 2 : CH 138 (U-NII-3)

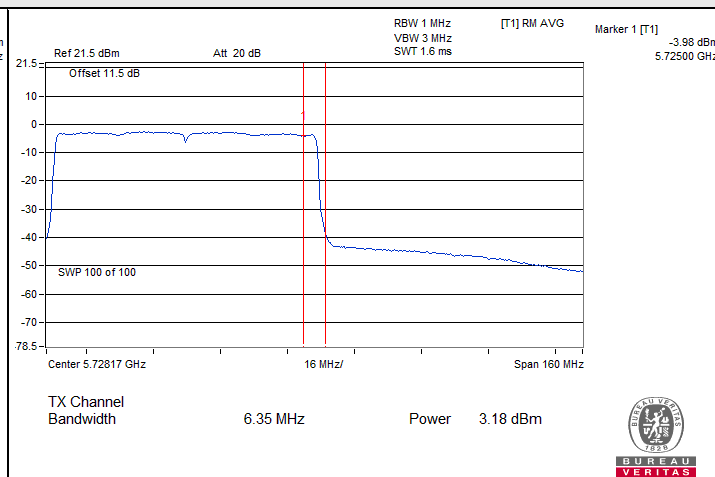


BUREAU VERITAS

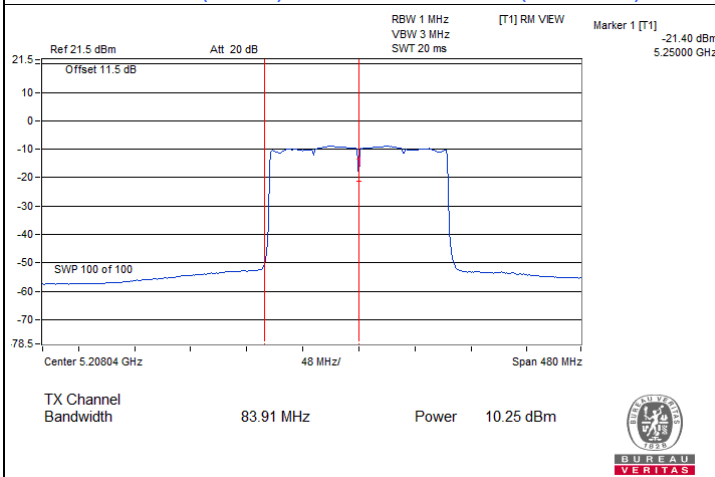
Spectrum Plot for channel straddling



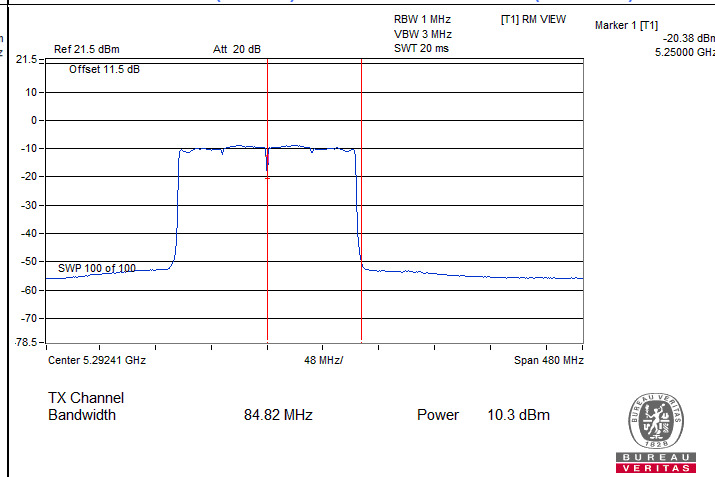
802.11ax (HE80) / Chain 3 : CH 138 (U-NII-2C)



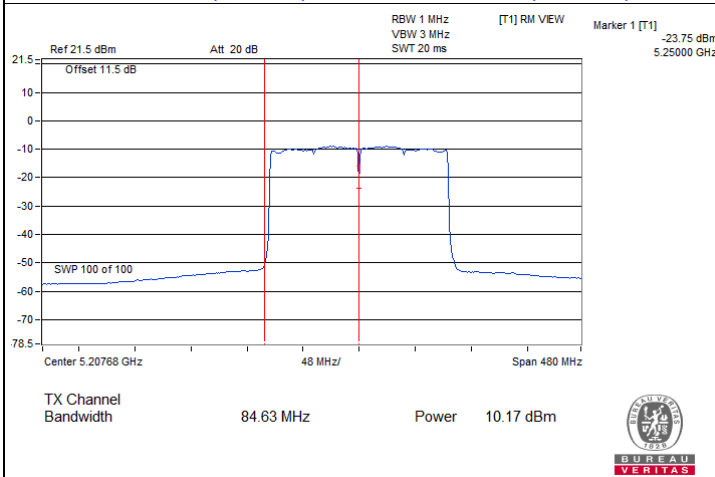
802.11ax (HE80) / Chain 3 : CH 138 (U-NII-3)



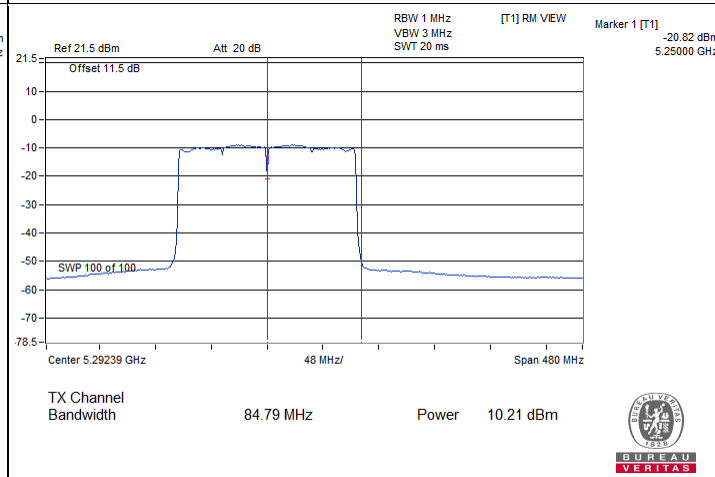
802.11ax (HE160) / Chain 0 : CH 50 (U-NII-1)



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



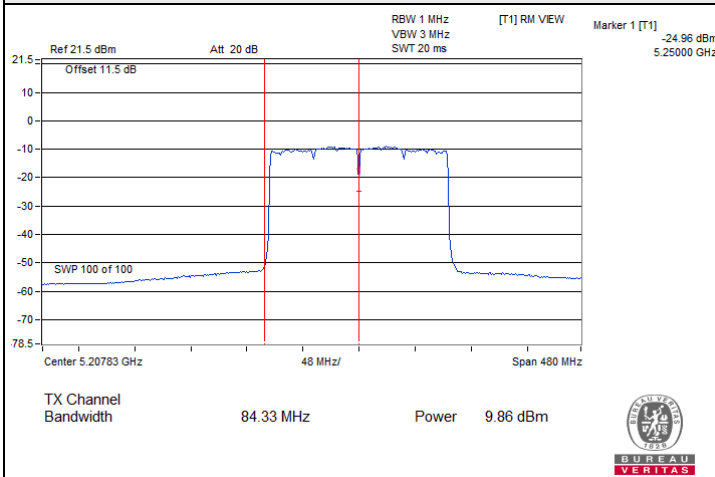
802.11ax (HE160) / Chain 1 : CH 50 (U-NII-1)



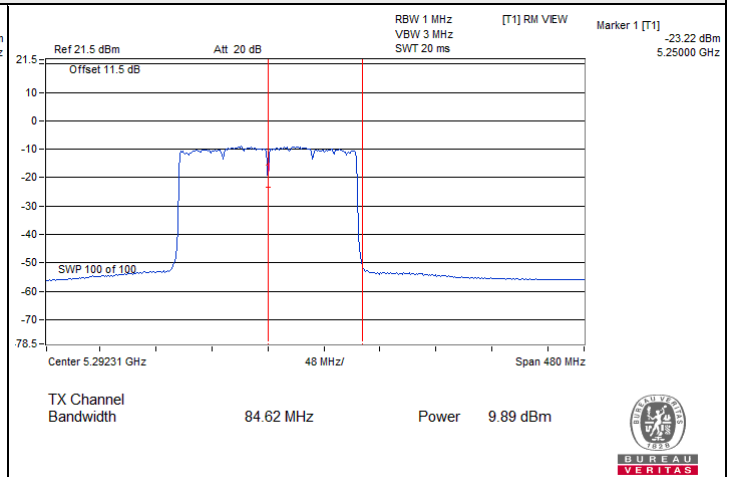
802.11ax (HE160) / Chain 1 : CH 50 (U-NII-2A)



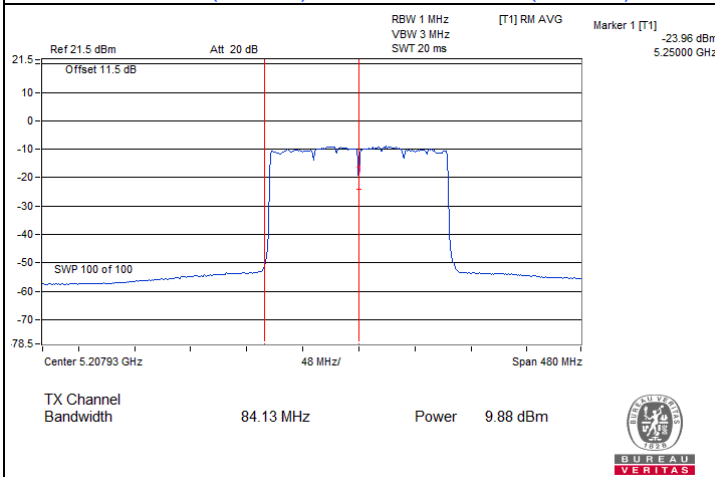
Spectrum Plot for channel straddling



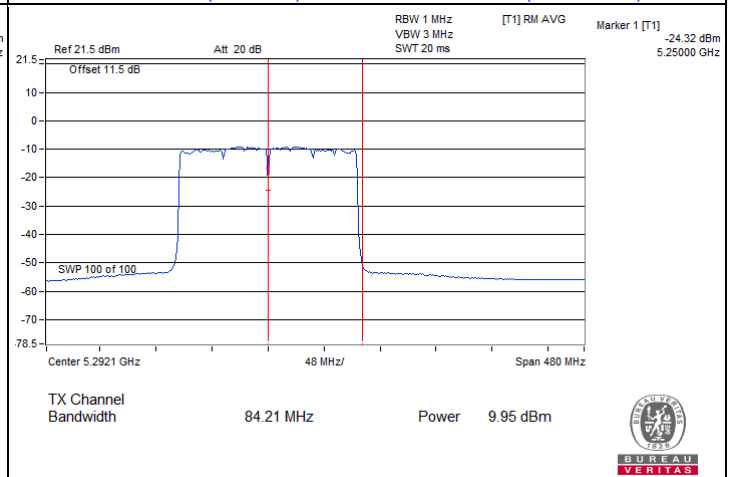
802.11ax (HE160) / Chain 2 : CH 50 (U-NII-1)



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



802.11ax (HE160) / Chain 3 : CH 50 (U-NII-1)



802.11ax (HE160) / Chain 3 : CH 50 (U-NII-2A)

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 (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	5.71	5.34	5.27	4.71	11.29	15.84	Pass
40	5200	8.61	8.55	8.43	8.43	14.53	15.84	Pass
48	5240	8.59	8.60	8.37	7.86	14.39	15.84	Pass
52	5260	3.31	3.41	3.25	3.49	9.39	9.61	Pass
60	5300	3.57	3.50	3.40	3.29	9.46	9.61	Pass
64	5320	3.32	3.39	3.36	3.49	9.41	9.61	Pass
100	5500	2.26	2.18	2.05	2.32	8.22	9.89	Pass
116	5580	3.14	3.55	3.72	2.56	9.29	9.89	Pass
140	5700	1.70	1.44	1.75	1.60	7.64	9.89	Pass
144 (U-NII-2C)	5720	3.65	3.64	3.70	3.10	9.55	9.89	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.
- For U-NII-1, the directional gain is 7.16 dBi > 6dBi, so the power density limit shall be reduced to $17-(7.16-6) = 15.84$ dBm/MHz.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.39-6) = 9.61$ dBm/MHz.
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.11-6) = 9.89$ dBm/MHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	3.60	3.39	3.43	3.41	9.48	15.84	Pass
40	5200	8.15	8.46	8.14	7.54	14.11	15.84	Pass
48	5240	7.96	8.30	8.31	7.32	14.01	15.84	Pass
52	5260	3.48	3.41	3.40	3.30	9.42	9.61	Pass
60	5300	3.38	3.36	3.30	3.09	9.30	9.61	Pass
64	5320	3.49	3.49	3.65	3.57	9.57	9.61	Pass
100	5500	3.38	3.17	3.29	3.13	9.26	9.89	Pass
116	5580	3.74	3.75	3.57	3.55	9.67	9.89	Pass
140	5700	-0.54	-0.41	-0.27	-1.15	5.44	9.89	Pass
144 (U-NII-2C)	5720	3.66	3.53	3.95	3.34	9.65	9.89	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.
- For U-NII-1, the directional gain is 7.16 dBi > 6dBi, so the power density limit shall be reduced to $17-(7.16-6) = 15.84$ dBm/MHz.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.39-6) = 9.61$ dBm/MHz.
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.11-6) = 9.89$ dBm/MHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
38	5190	-1.79	-1.41	-1.30	-2.44	4.31	15.84	Pass
46	5230	4.08	4.37	4.38	3.76	10.18	15.84	Pass
54	5270	1.12	1.65	1.41	1.06	7.34	9.61	Pass
62	5310	-1.43	-1.60	-1.44	-2.23	4.36	9.61	Pass
102	5510	-0.56	-0.51	-0.41	-0.91	5.43	9.89	Pass
110	5550	-0.33	1.15	1.26	0.84	6.79	9.89	Pass
134	5670	1.07	-0.69	1.05	0.77	6.63	9.89	Pass
142 (U-NII-2C)	5710	1.22	1.50	1.14	1.19	7.29	9.89	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.
- For U-NII-1, the directional gain is 7.16 dBi > 6dBi, so the power density limit shall be reduced to $17-(7.16-6) = 15.84$ dBm/MHz.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.39-6) = 9.61$ dBm/MHz.
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.11-6) = 9.89$ dBm/MHz.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
42	5210	-5.56	-5.19	-5.41	-6.21	0.44	15.84	Pass
58	5290	-3.44	-3.50	-3.66	-3.61	2.47	9.61	Pass
106	5530	-3.48	-3.14	-3.56	-4.70	2.34	9.89	Pass
122	5610	-1.83	-1.60	-1.30	-2.44	4.25	9.89	Pass
138 (U-NII-2C)	5690	-1.43	-1.74	-1.14	-1.40	4.60	9.89	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.
- For U-NII-1, the directional gain is 7.16 dBi > 6dBi, so the power density limit shall be reduced to $17-(7.16-6) = 15.84$ dBm/MHz.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.39-6) = 9.61$ dBm/MHz.
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.11-6) = 9.89$ dBm/MHz.

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
50 (U-NII-1)	5250	-6.47	-6.78	-6.35	-6.65	-0.54	15.84	Pass
50 (U-NII-2A)	5250	-6.48	-6.81	-6.38	-6.64	-0.55	9.61	Pass
114	5570	-6.21	-6.13	-6.33	-6.78	-0.33	9.89	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.
- For U-NII-1, the directional gain is 7.16 dBi > 6dBi, so the power density limit shall be reduced to $17-(7.16-6) = 15.84$ dBm/MHz.
- For U-NII-2A, the directional gain is 7.39 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.39-6) = 9.61$ dBm/MHz.
- For U-NII-2C, the directional gain is 7.11 dBi > 6 dBi, so the power density limit shall be reduced to $11-(7.11-6) = 9.89$ dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
144 (U-NII-3)	5720	-4.92	-4.97	-5.61	-5.51	0.78	3.00	29.29	Pass
149	5745	-0.51	-0.52	-1.05	-0.72	5.33	7.55	29.29	Pass
157	5785	-0.71	-0.68	-1.36	-1.07	5.07	7.29	29.29	Pass
165	5825	-0.97	-0.98	-1.49	-1.60	4.77	6.99	29.29	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.71-6) = 29.29$ dBm/500kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
144 (U-NII-3)	5720	-5.98	-6.17	-6.45	-6.33	-0.21	2.01	29.29	Pass
149	5745	-2.07	-1.95	-2.51	-2.42	3.79	6.01	29.29	Pass
157	5785	-2.09	-1.79	-2.68	-2.71	3.72	5.94	29.29	Pass
165	5825	-2.91	-2.30	-2.63	-3.54	3.2	5.42	29.29	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.71-6) = 29.29$ dBm/500kHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
142 (U-NII-3)	5710	-9.36	-9.64	-9.80	-10.18	-3.71	-1.49	29.29	Pass
151	5755	-5.60	-5.86	-5.47	-6.11	0.27	2.49	29.29	Pass
159	5795	-5.18	-5.54	-5.36	-5.85	0.55	2.77	29.29	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.71-6) = 29.29$ dBm/500kHz.

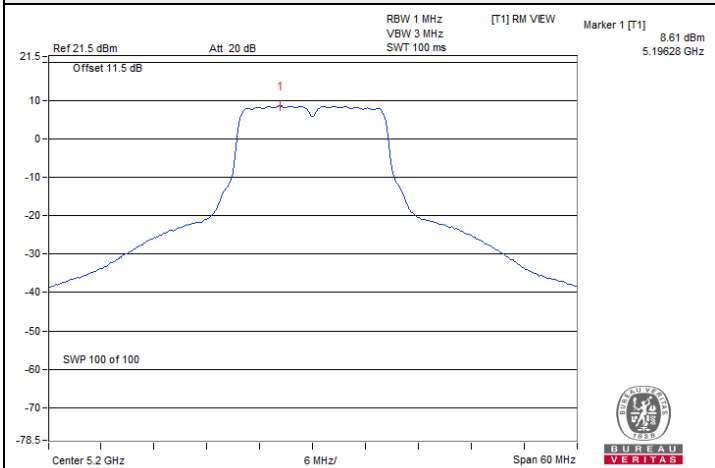
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
138 (U-NII-3)	5690	-12.29	-12.35	-12.46	-12.71	-6.43	-4.21	29.29	Pass
155	5775	-8.77	-8.87	-9.14	-9.14	-2.96	-0.74	29.29	Pass

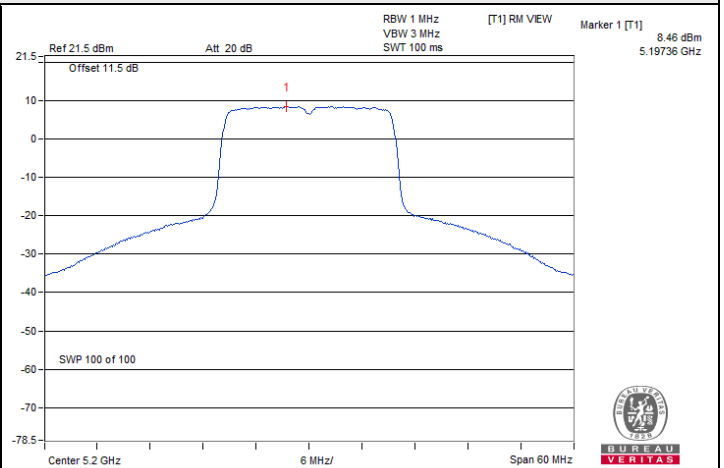
Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- For U-NII-3, the directional gain is 6.71 dBi > 6 dBi, so the power density limit shall be reduced to $30-(6.71-6) = 29.29$ dBm/500kHz.

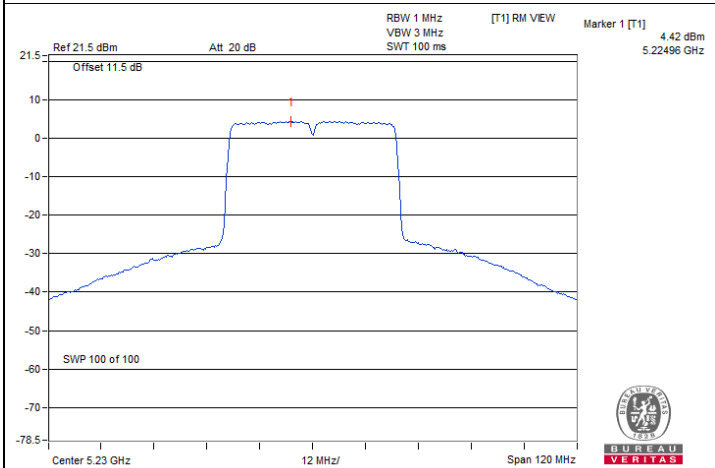
Spectrum Plot of Maximum Value



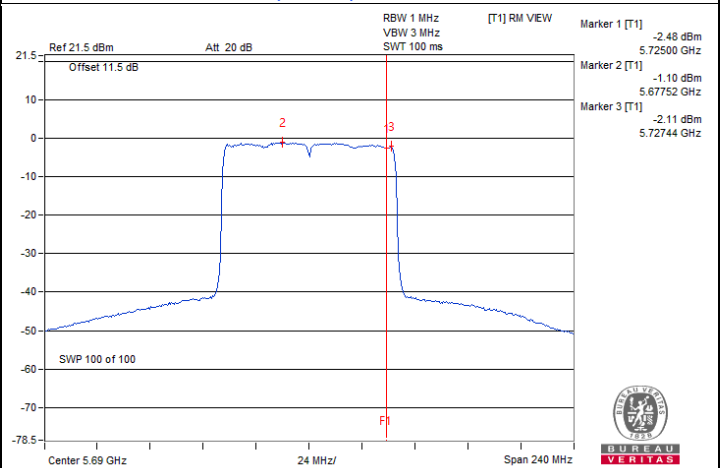
802.11a / Chain0 : CH 40



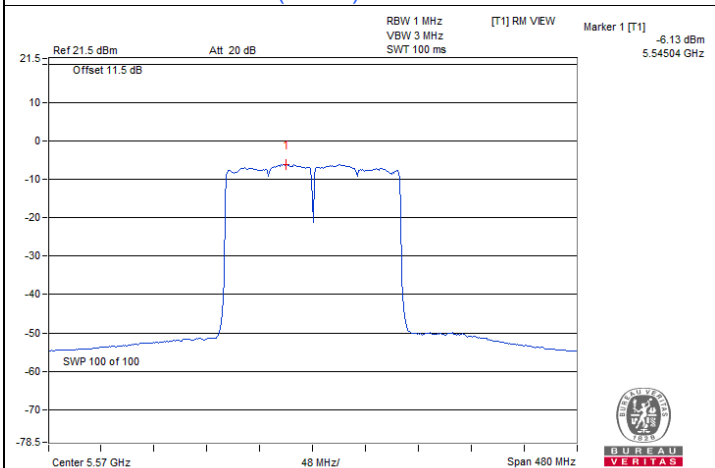
802.11ax (HE20) / Chain1 : CH 40



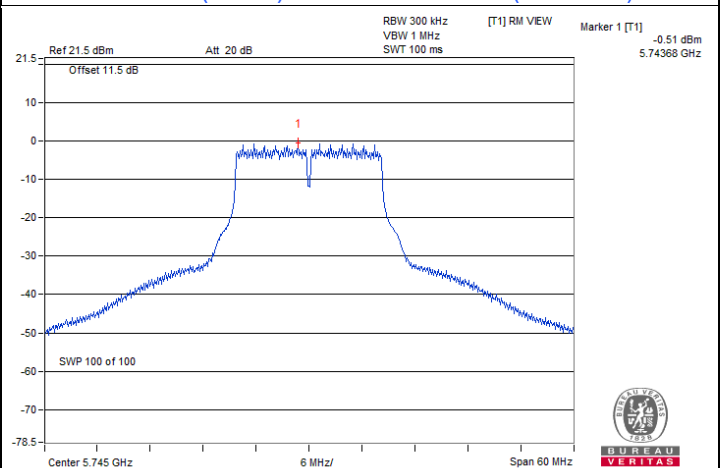
802.11ax (HE40) / Chain2 : CH 46



802.11ax (HE80) / Chain2 : CH 138 (U-NII-2C)

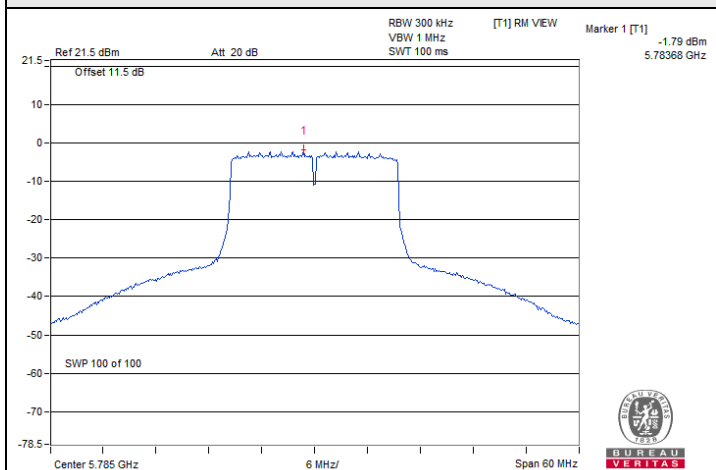


802.11ax (HE160) / Chain1 : CH 114

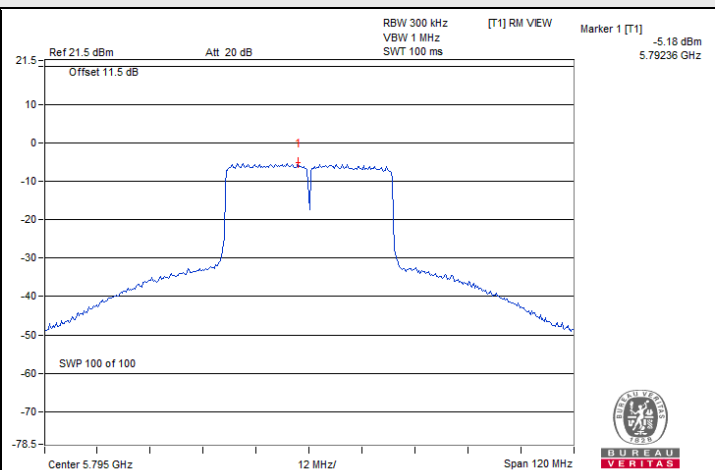


802.11a / Chain0 : CH 149

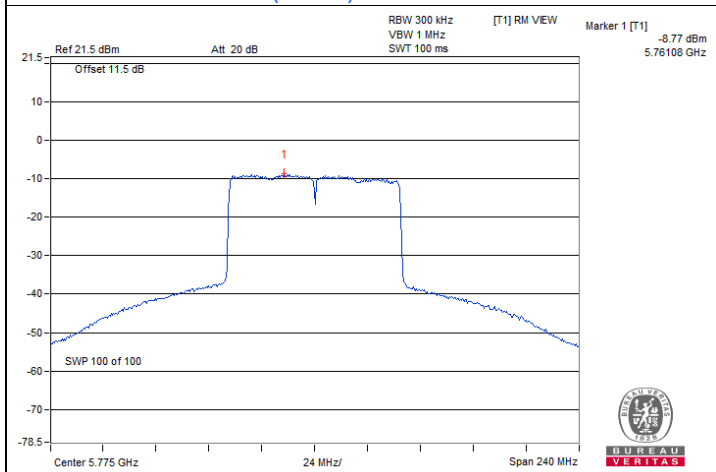
Spectrum Plot of Maximum Value



802.11ax (HE20) / Chain1 : CH 157



802.11ax (HE40) / Chain0 : CH 159



802.11ax (HE80) / Chain0 : CH 155

7.4 6 dB Bandwidth

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	3.13	3.13	3.13	3.14	0.5	Pass
149	5745	16.41	16.40	16.40	16.41	0.5	Pass
157	5785	16.42	16.40	16.40	16.39	0.5	Pass
165	5825	16.40	16.40	16.40	16.40	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	4.48	4.47	4.50	4.47	0.5	Pass
149	5745	19.06	19.07	19.06	19.09	0.5	Pass
157	5785	19.08	19.13	19.08	19.14	0.5	Pass
165	5825	19.08	19.09	19.07	19.12	0.5	Pass

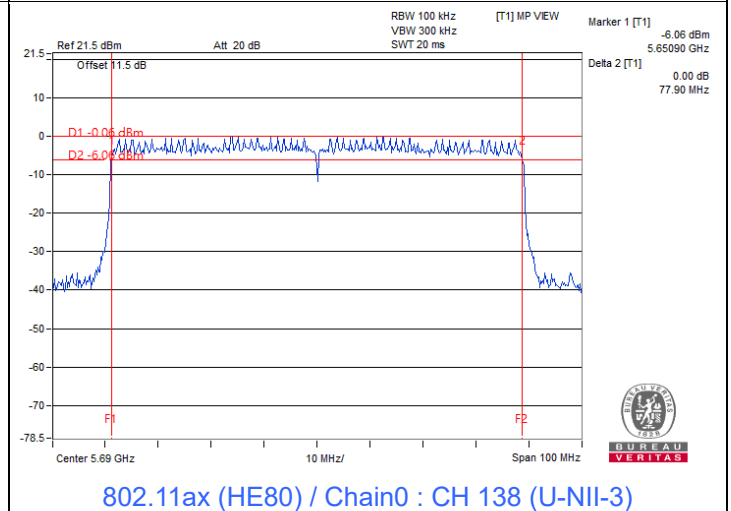
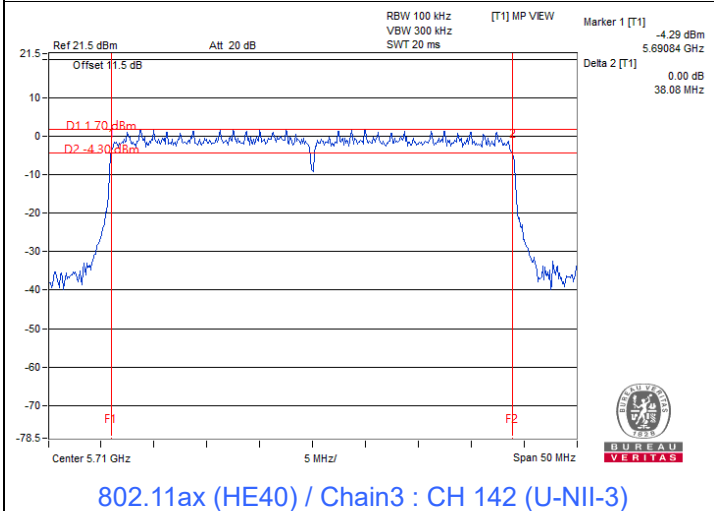
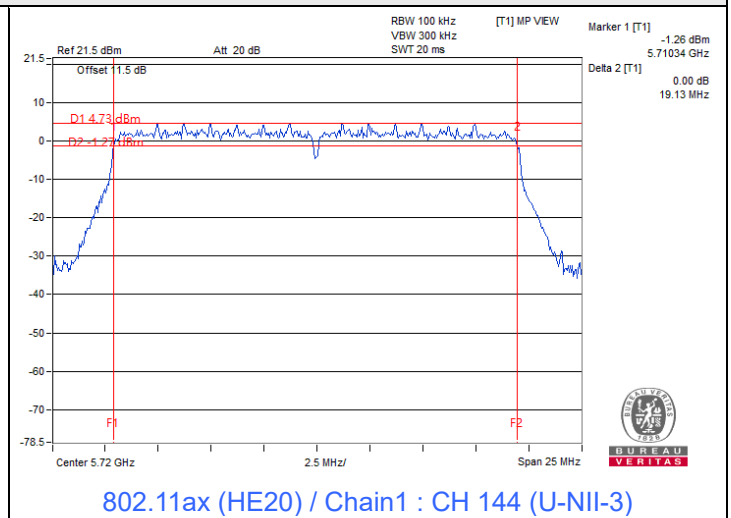
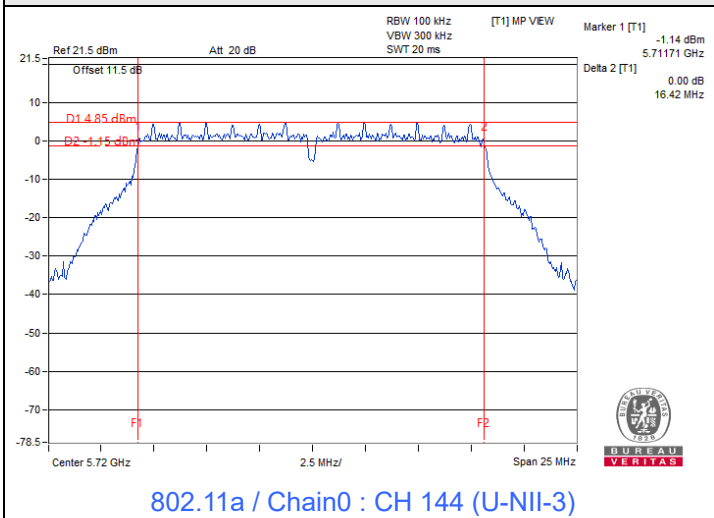
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
142 (U-NII-3)	5710	3.97	3.94	3.96	3.92	0.5	Pass
151	5755	38.07	38.09	38.08	38.06	0.5	Pass
159	5795	37.96	38.11	37.96	38.03	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
138 (U-NII-3)	5690	3.80	3.83	3.84	4.00	0.5	Pass
155	5775	77.84	77.84	77.93	77.79	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	Chain 2	Chain 3
36	5180	17.16	17.16	17.16	17.28
40	5200	17.76	17.76	18.00	17.76
48	5240	17.64	17.76	17.76	17.76
52	5260	17.16	17.16	17.16	17.16
60	5300	17.16	17.16	17.16	17.16
64	5320	17.16	17.16	17.16	17.16
100	5500	17.16	17.16	17.16	17.16
116	5580	17.16	17.16	17.16	17.16
140	5700	17.16	17.16	17.16	17.16
144 (U-NII-2C)	5720	13.64	13.76	13.76	13.64
144 (U-NII-3)	5720	3.52	3.52	3.52	3.52
149	5745	17.76	17.76	17.88	17.76
157	5785	17.64	17.64	17.64	17.64
165	5825	17.64	17.52	17.76	17.64

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.20	19.08	19.20	19.20
40	5200	19.32	19.32	19.20	19.32
48	5240	19.32	19.32	19.32	19.32
52	5260	19.20	19.20	19.20	19.20
60	5300	19.20	19.20	19.20	19.20
64	5320	19.20	19.20	19.20	19.20
100	5500	19.20	19.20	19.20	19.20
116	5580	19.20	19.20	19.08	19.20
140	5700	19.20	19.20	19.20	19.20
144 (U-NII-2C)	5720	14.72	14.72	14.72	14.72
144 (U-NII-3)	5720	4.48	4.48	4.48	4.48
149	5745	19.44	19.32	19.44	19.32
157	5785	19.32	19.32	19.20	19.32
165	5825	19.20	19.32	19.32	19.32

802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	38.16	38.16	38.16	37.92
46	5230	38.16	38.16	38.16	38.16
54	5270	37.92	37.92	38.16	38.16
62	5310	38.16	38.16	37.92	38.16
102	5510	38.16	37.92	38.16	38.16
110	5550	37.92	38.16	38.16	38.16
134	5670	38.16	38.16	38.16	38.16
142 (U-NII-2C)	5710	34.20	34.20	34.20	34.20
142 (U-NII-3)	5710	3.72	3.72	3.72	3.96
151	5755	38.64	38.40	38.64	38.40
159	5795	38.40	38.40	38.64	38.40

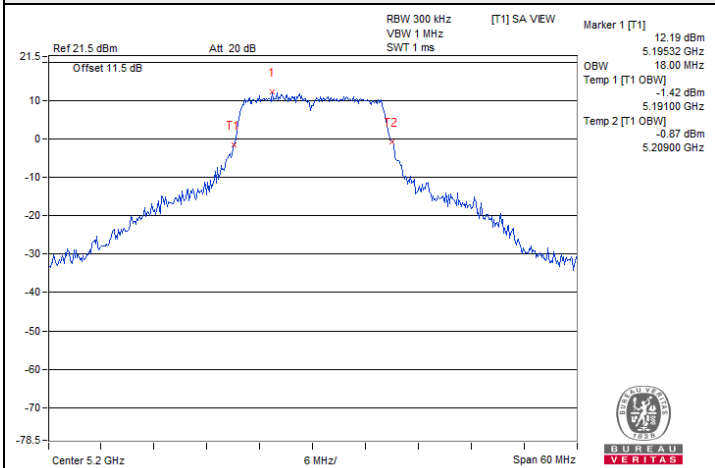
802.11ax (HE80)

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

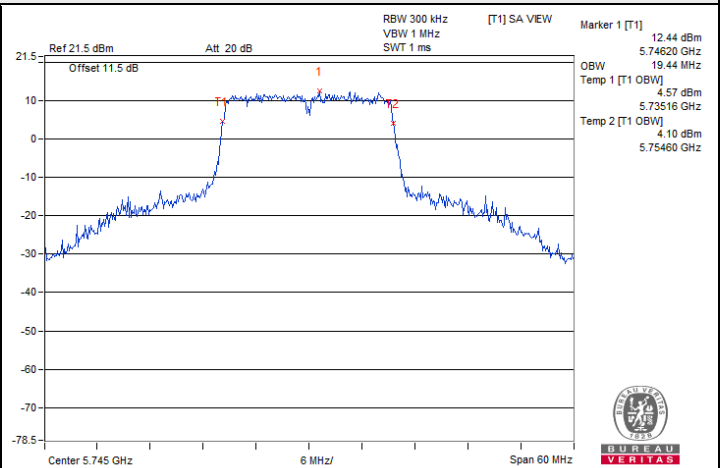
802.11ax (HE160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-1)	5250	78.72	78.72	78.72	78.72
50 (U-NII-2A)	5250	77.76	77.76	77.76	77.76
114	5570	156.48	156.48	156.48	156.48

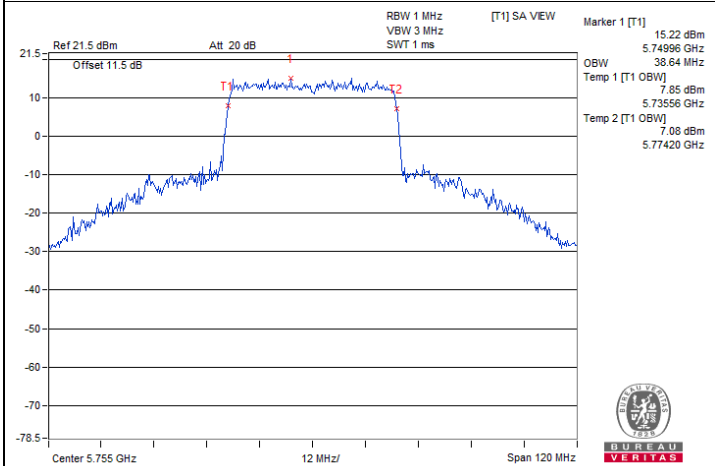
Spectrum Plot of Maximum Value



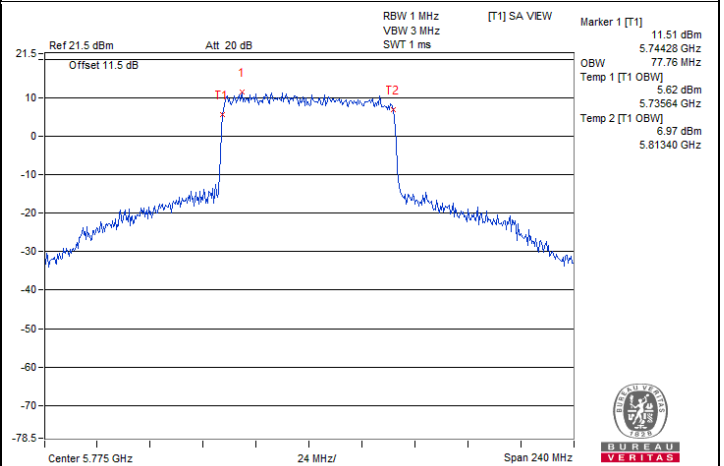
802.11a / Chain2 : CH 40



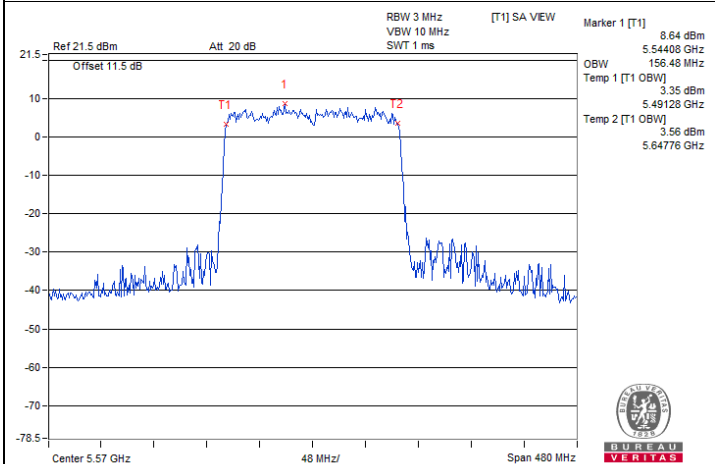
802.11ax (HE20) / Chain0 : CH 149



802.11ax (HE40) / Chain0 : CH 151

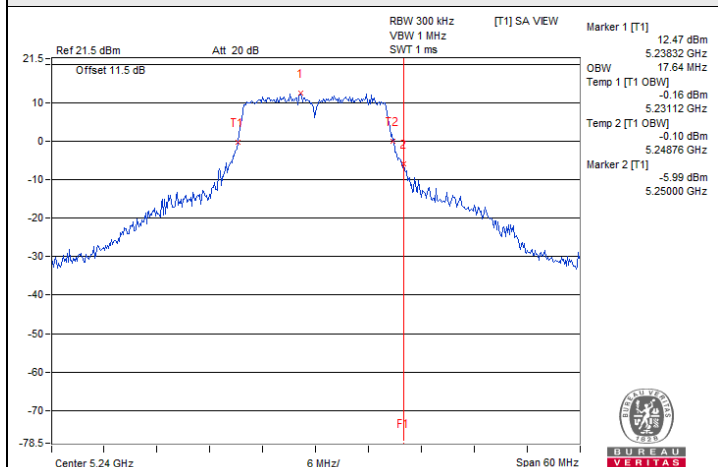
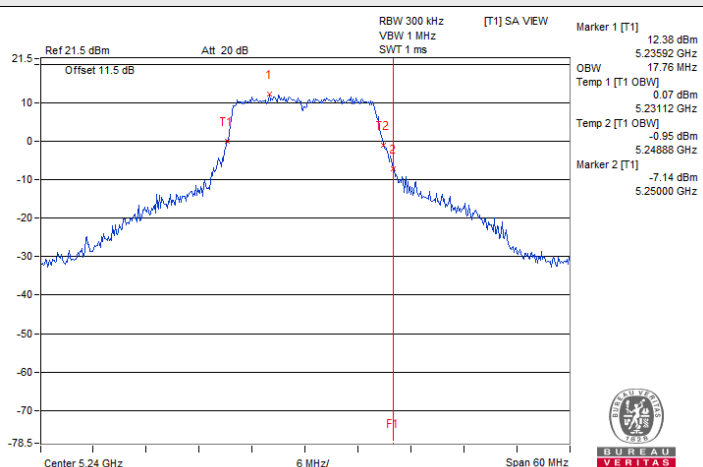
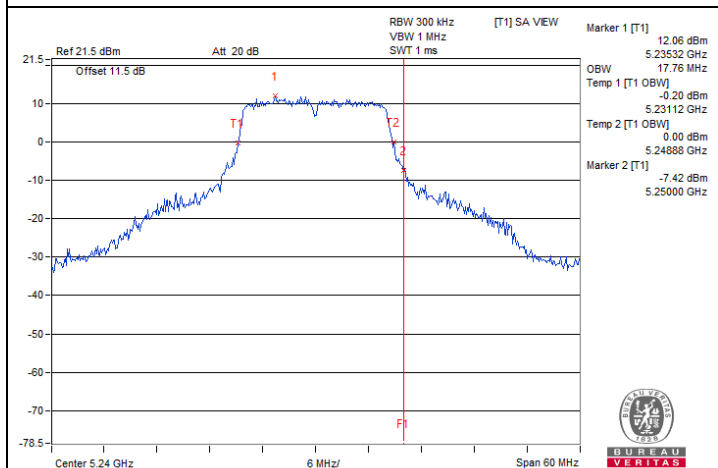
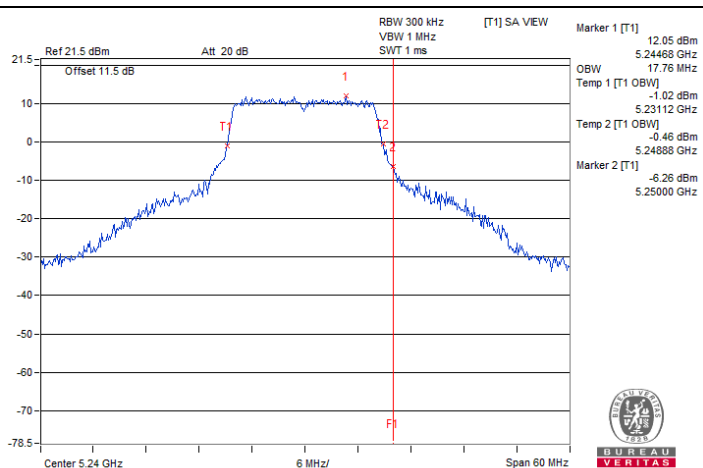
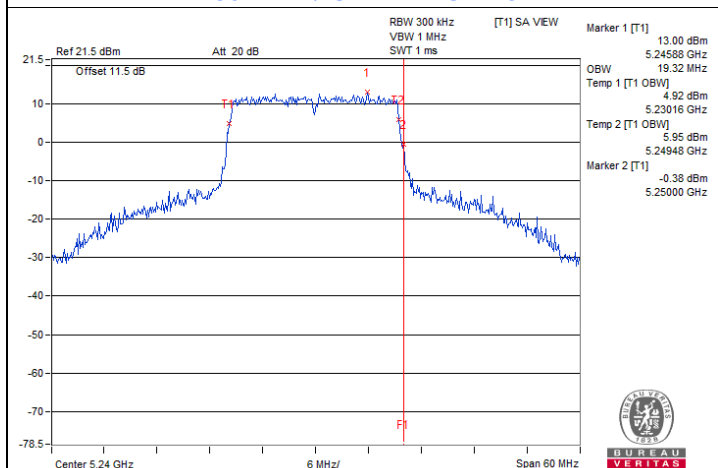
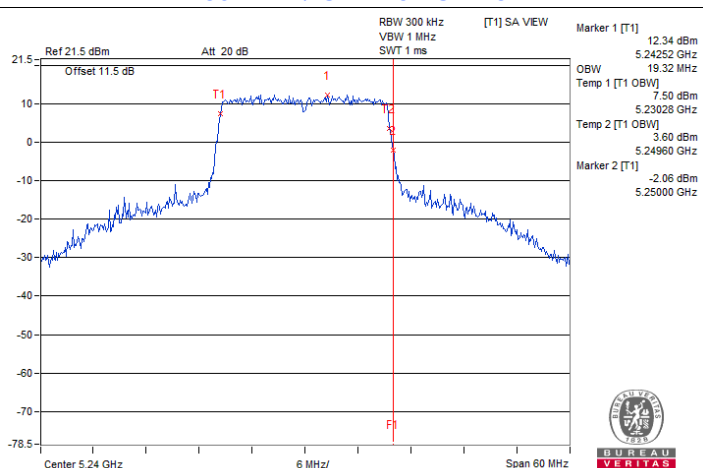


802.11ax (HE80) / Chain2 : CH 155



802.11ax (HE160) / Chain0 : CH 114

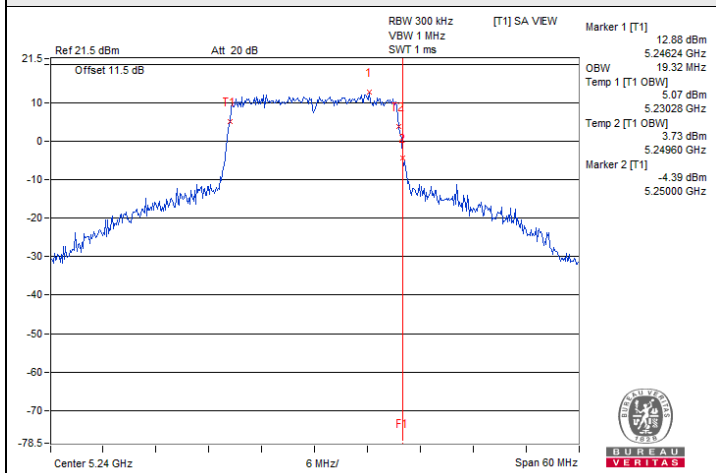
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)

**802.11a / Chain 0 : CH 48****802.11a / Chain 1 : CH 48****802.11a / Chain 2 : CH 48****802.11a / Chain 3 : CH 48****802.11ax (HE20) / Chain 0 : CH 48****802.11ax (HE20) / Chain 1 : CH 48**

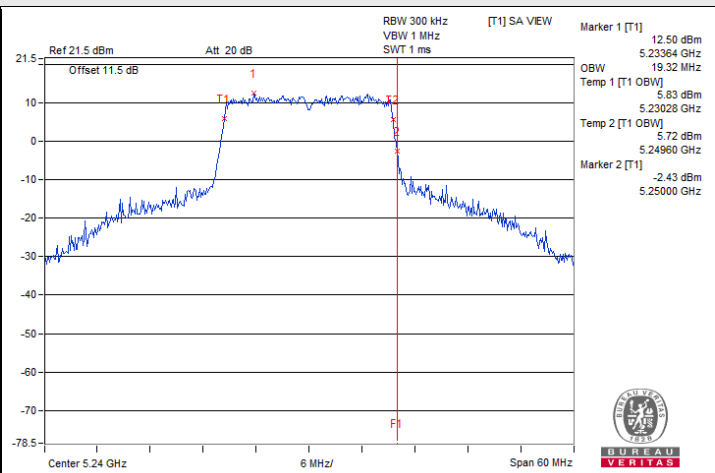


Spectrum Plot for nearby DFS band

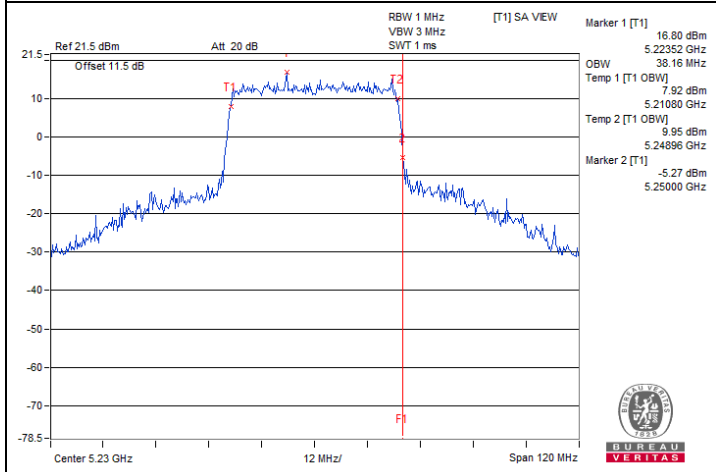
(DFS is required, if 99% OCP straddle into U-NII-2A band)



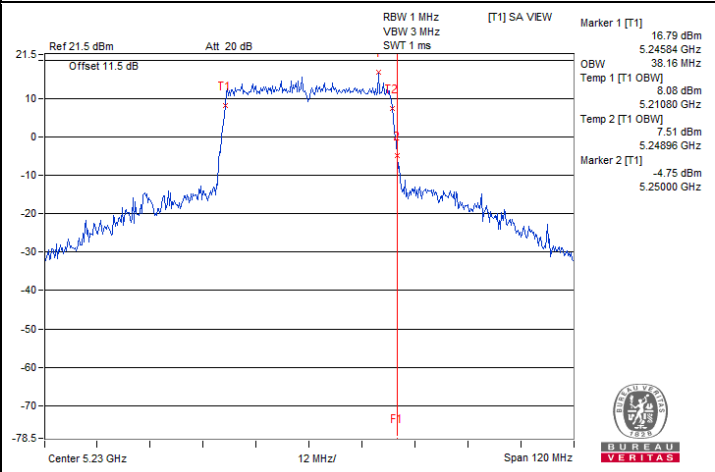
802.11ax (HE20) / Chain 2 : CH 48



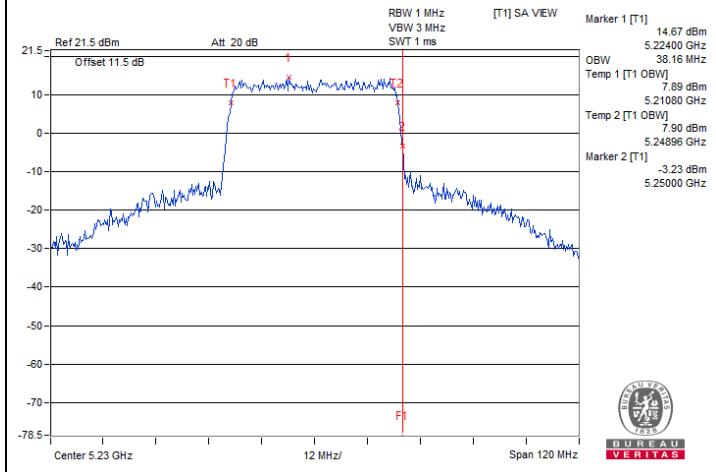
802.11ax (HE20) / Chain 3 : CH 48



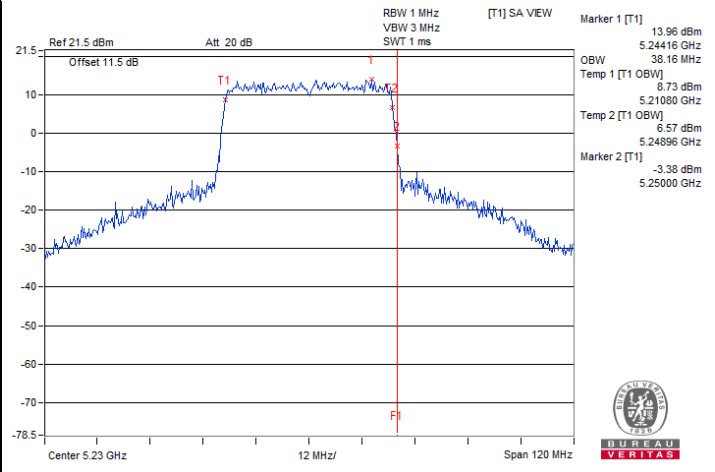
802.11ax (HE40) / Chain 0 : CH 46



802.11ax (HE40) / Chain 1 : CH 46

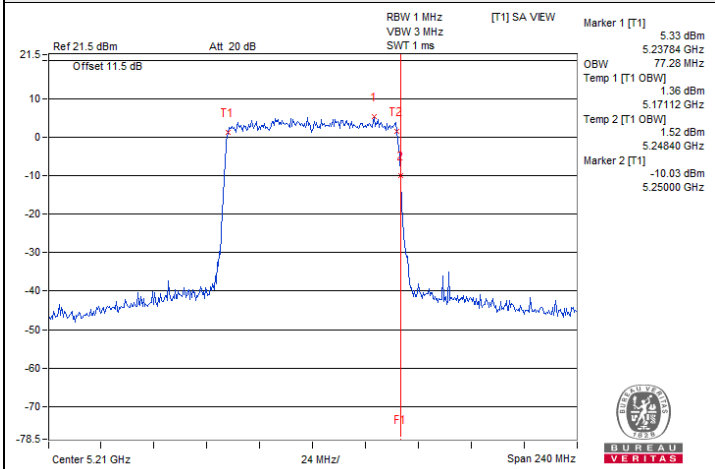


802.11ax (HE40) / Chain 2 : CH 46

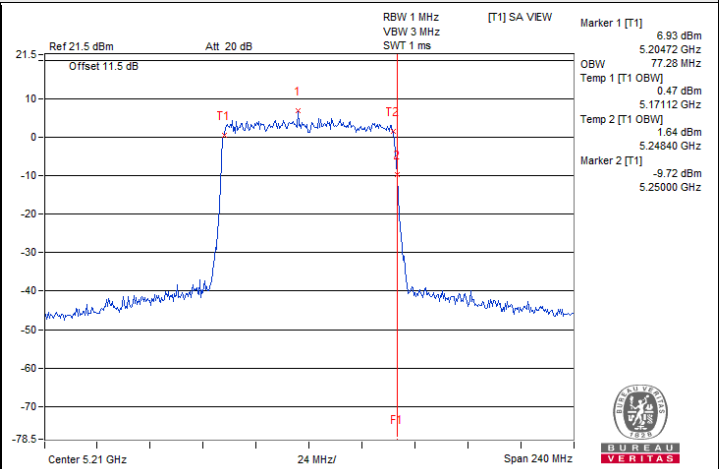


802.11ax (HE40) / Chain 3 : CH 46

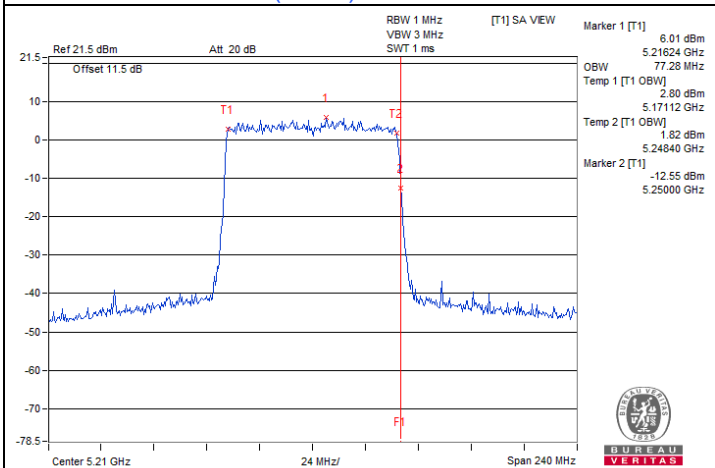
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



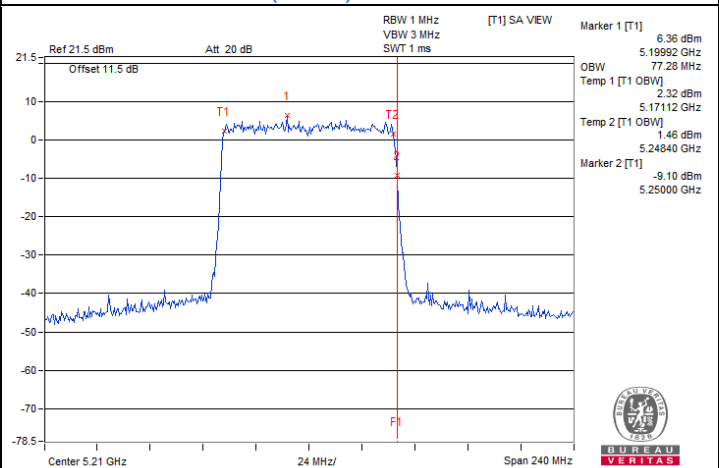
802.11ax (HE80) / Chain 0 : CH 42



802.11ax (HE80) / Chain 1 : CH 42



802.11ax (HE80) / Chain 2 : CH 42

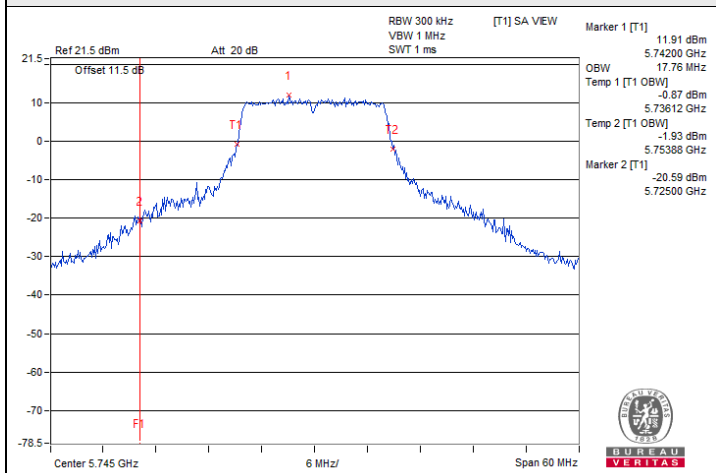


802.11ax (HE80) / Chain 3 : CH 42

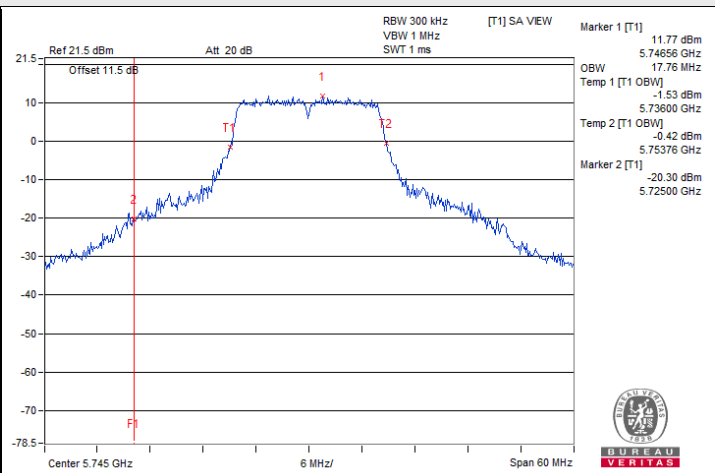


Spectrum Plot for nearby DFS band

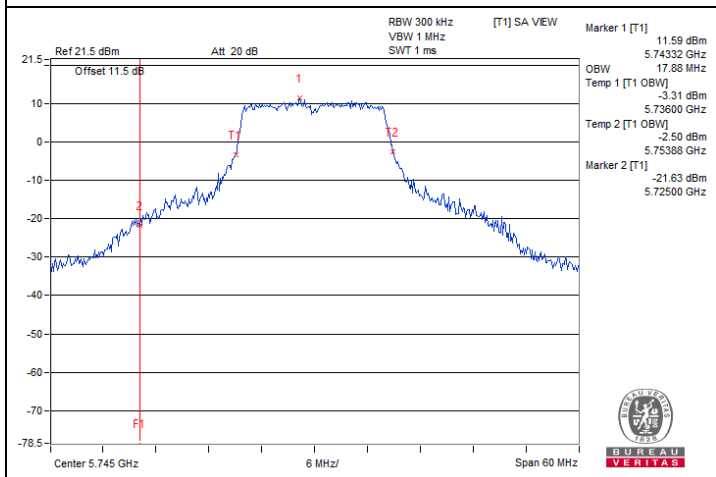
(DFS is required, if 99% OCP straddle into U-NII-2C band)



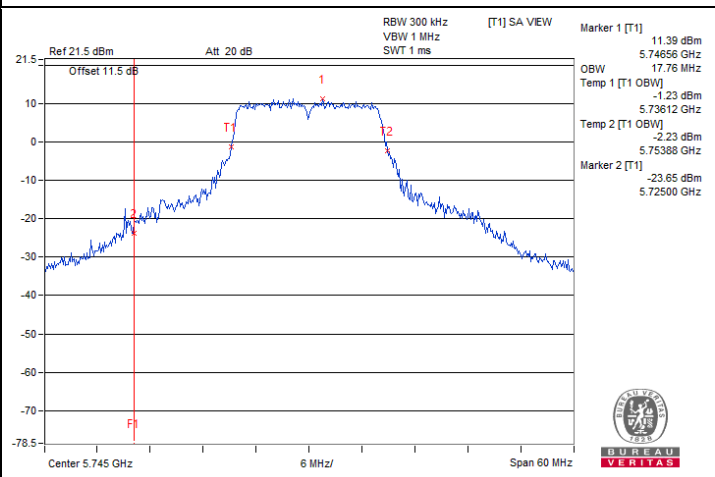
802.11a / Chain 0 : CH 149



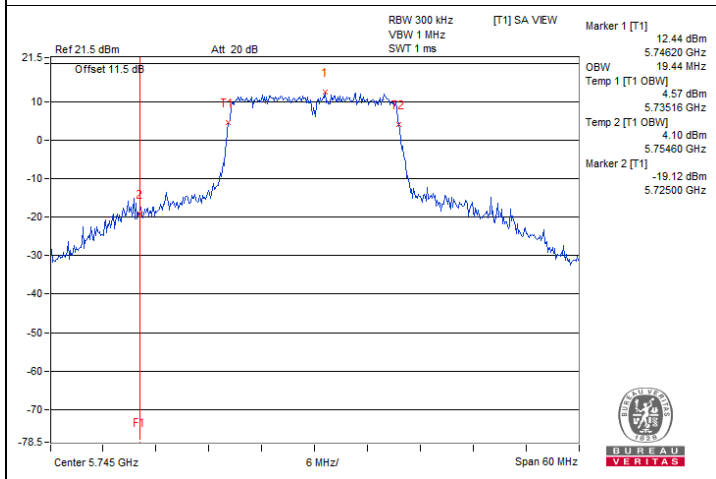
802.11a / Chain 1 : CH 149



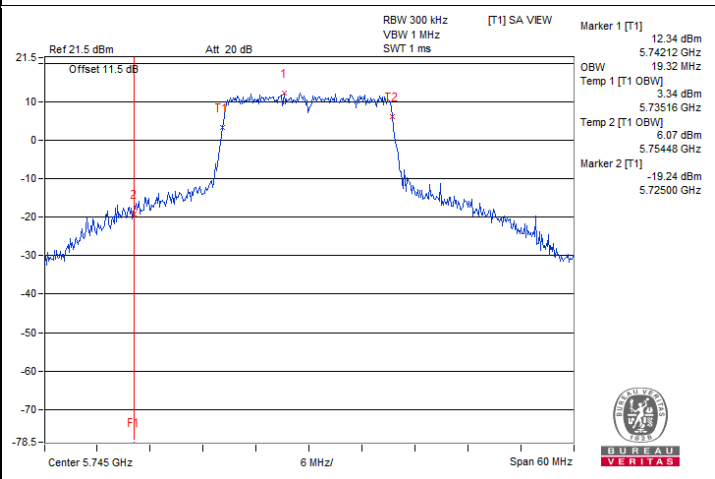
802.11a / Chain 2 : CH 149



802.11a / Chain 3 : CH 149



802.11ax (HE20) / Chain 0 : CH 149

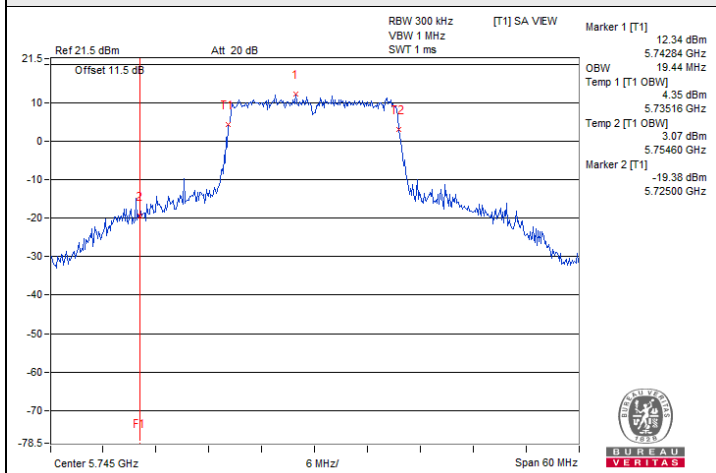


802.11ax (HE20) / Chain 1 : CH 149

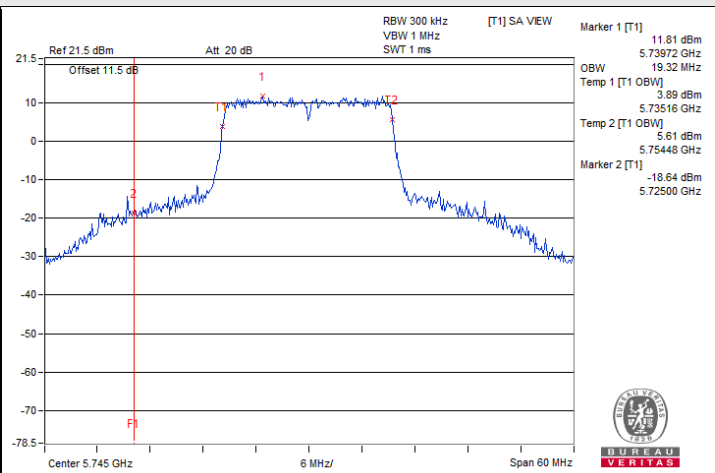


Spectrum Plot for nearby DFS band

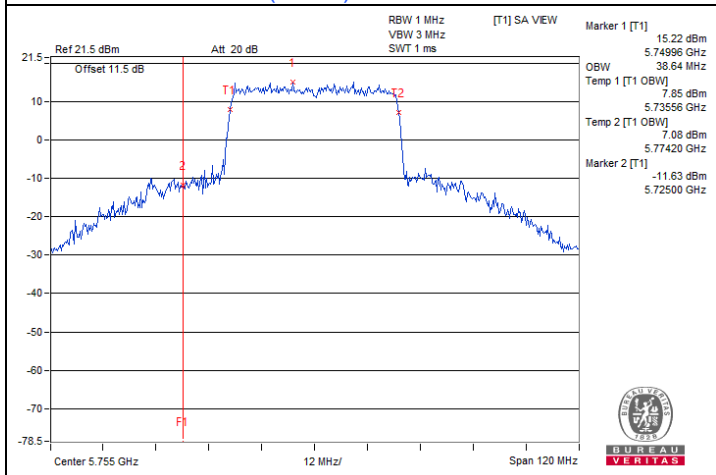
(DFS is required, if 99% OCP straddle into U-NII-2C band)



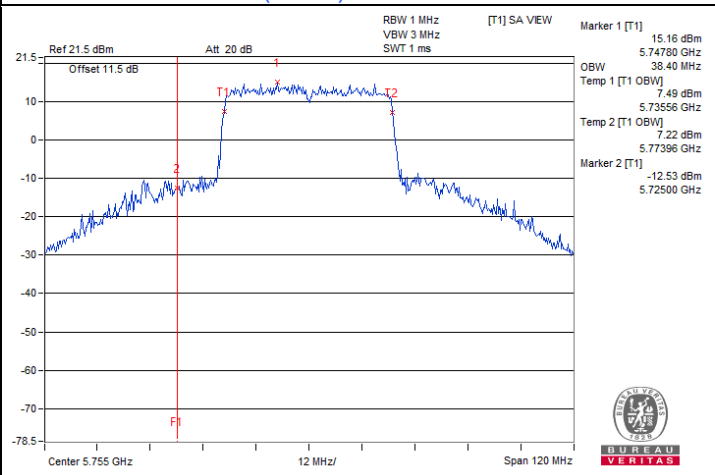
802.11ax (HE20) / Chain 2 : CH 149



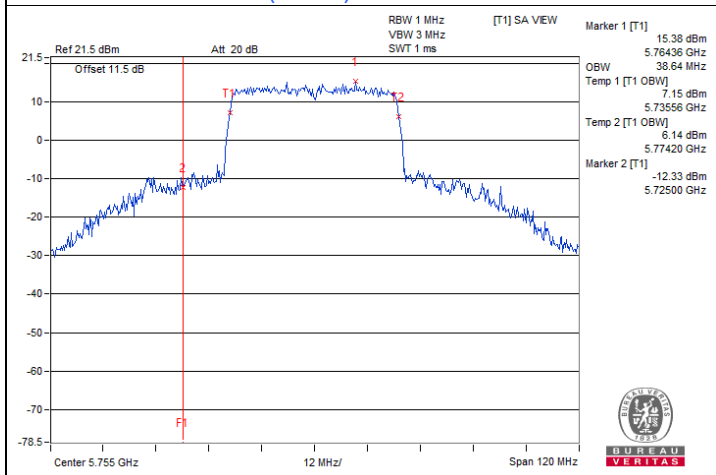
802.11ax (HE20) / Chain 3 : CH 149



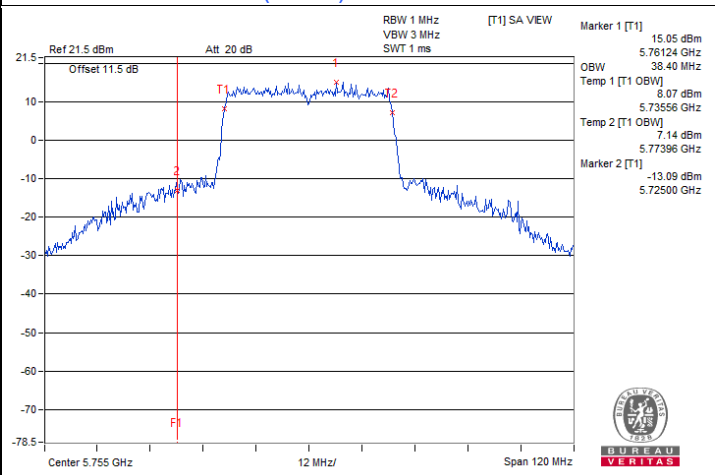
802.11ax (HE40) / Chain 0 : CH 151



802.11ax (HE40) / Chain 1 : CH 151

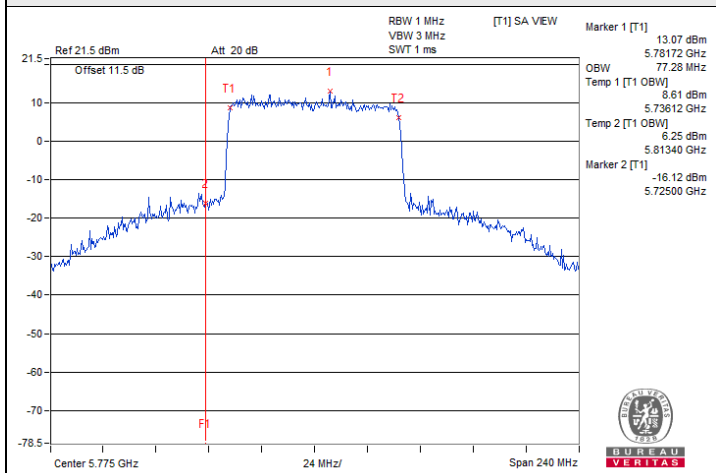


802.11ax (HE40) / Chain 2 : CH 151

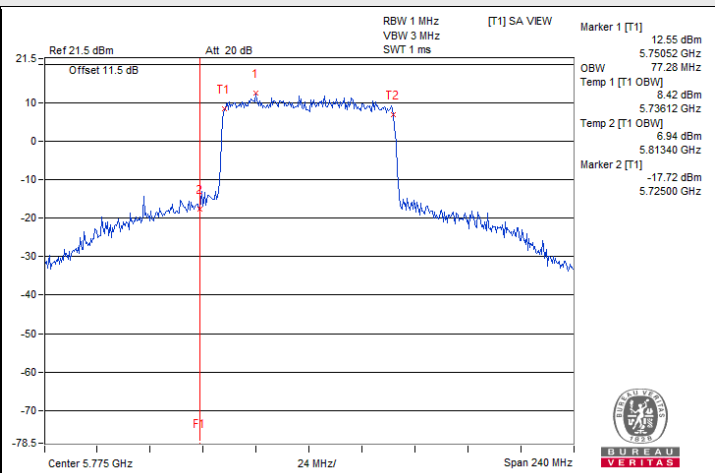


802.11ax (HE40) / Chain 3 : CH 151

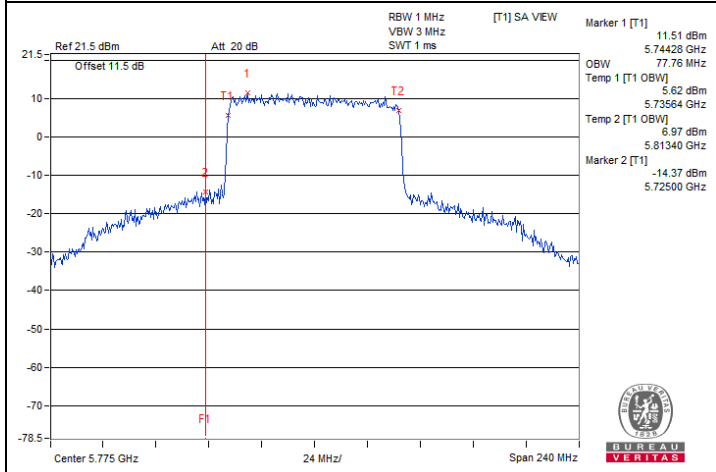
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C band)



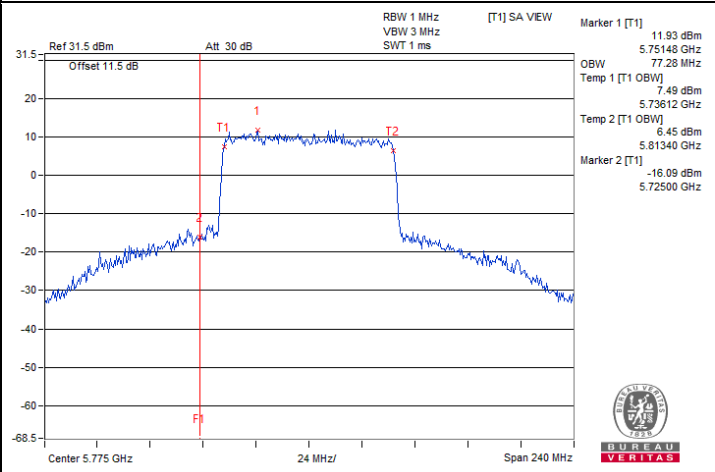
802.11ax (HE80) / Chain 0 : CH 155



802.11ax (HE80) / Chain 1 : CH 155



802.11ax (HE80) / Chain 2 : CH 155



802.11ax (HE80) / Chain 3 : CH 155

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	5179.9774	Pass	5179.9814	Pass	5179.9783	Pass	5179.9773	Pass
30	120	5180.0156	Pass	5180.0166	Pass	5180.0201	Pass	5180.0165	Pass
20	120	5179.9782	Pass	5179.9757	Pass	5179.9779	Pass	5179.9754	Pass
10	120	5179.9994	Pass	5180.0011	Pass	5179.9997	Pass	5180.0001	Pass
0	120	5180.0163	Pass	5180.016	Pass	5180.0154	Pass	5180.0173	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	5179.9859	Pass	5179.9881	Pass	5179.9854	Pass	5179.9859	Pass
	120	5179.9782	Pass	5179.9757	Pass	5179.9779	Pass	5179.9754	Pass
	102	5179.9736	Pass	5179.9739	Pass	5179.9754	Pass	5179.9724	Pass

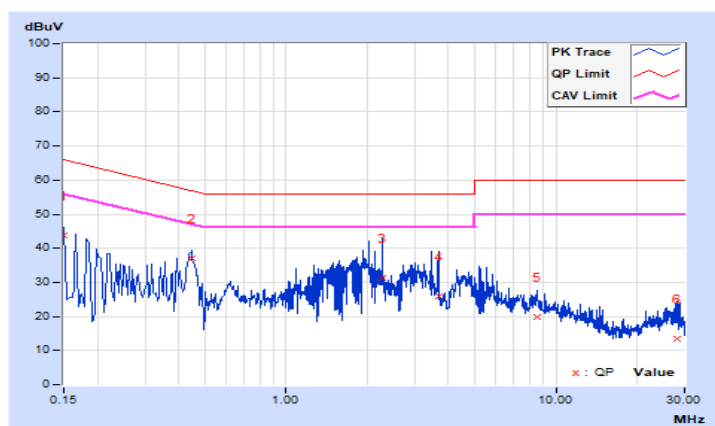
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11a	Channel	CH 40 : 5200 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	25°C, 75% RH
Tested By	Randy Wu		

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	10.13	33.49	18.04	43.62	28.17	66.00	56.00	-22.38	-27.83
2	0.44600	10.16	26.92	21.57	37.08	31.73	56.95	46.95	-19.87	-15.22
3	2.27000	10.22	21.09	10.22	31.31	20.44	56.00	46.00	-24.69	-25.56
4	3.67400	10.25	15.55	6.86	25.80	17.11	56.00	46.00	-30.20	-28.89
5	8.47800	10.28	9.50	4.02	19.78	14.30	60.00	50.00	-40.22	-35.70
6	28.10200	10.12	3.38	-3.55	13.50	6.57	60.00	50.00	-46.50	-43.43

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

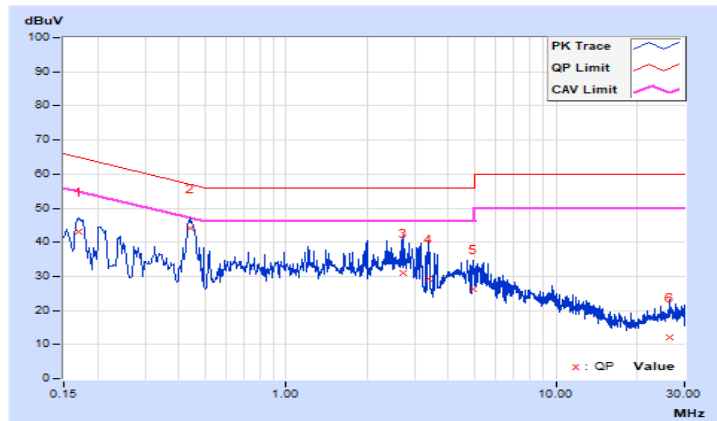


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Randy Wu		

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	0.16977	10.14	32.96	17.30	43.10	27.44	64.97	54.97	-21.87	-27.53
2	0.44177	10.17	34.00	29.06	44.17	39.23	57.03	47.03	-12.86	-7.80
3	2.73400	10.24	20.66	13.52	30.90	23.76	56.00	46.00	-25.10	-22.24
4	3.39000	10.26	19.20	6.94	29.46	17.20	56.00	46.00	-26.54	-28.80
5	4.91800	10.28	15.84	4.63	26.12	14.91	56.00	46.00	-29.88	-31.09
6	26.51000	10.32	1.84	-4.21	12.16	6.11	60.00	50.00	-47.84	-43.89

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



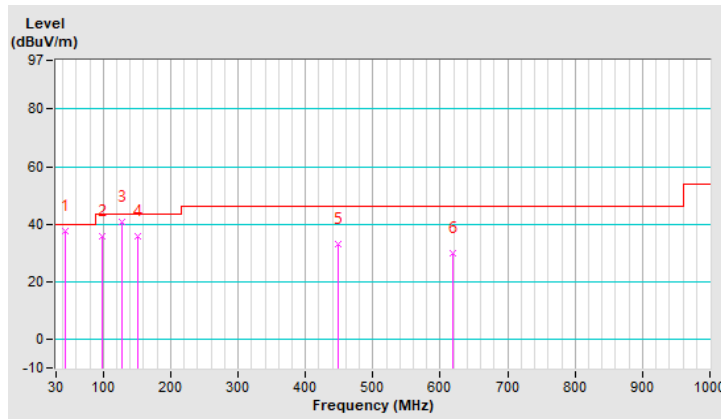
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Randy Wu		

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	43.58	37.8 QP	40.0	-2.2	1.00 H	18	47.2	-9.4
2	98.87	35.9 QP	43.5	-7.6	1.00 H	238	49.8	-13.9
3	127.97	40.8 QP	43.5	-2.7	1.99 H	55	51.2	-10.4
4	151.25	35.6 QP	43.5	-7.9	1.99 H	249	44.5	-8.9
5	448.07	33.1 QP	46.0	-12.9	1.00 H	357	36.6	-3.5
6	618.79	29.8 QP	46.0	-16.2	1.00 H	68	29.9	-0.1

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 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.

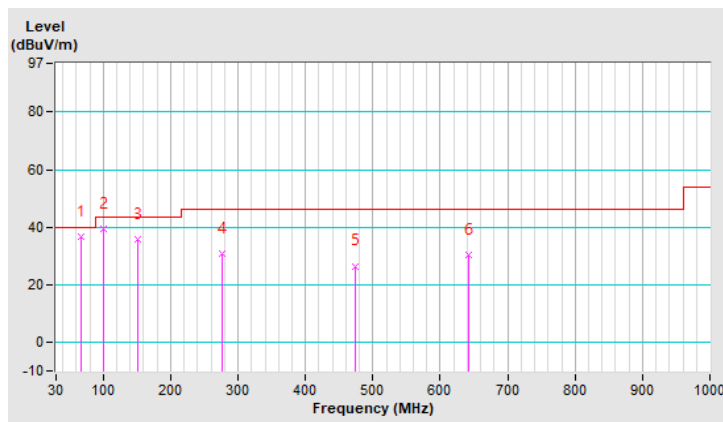


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Randy Wu		

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	66.86	36.9 QP	40.0	-3.1	1.51 V	71	47.2	-10.3
2	99.84	39.6 QP	43.5	-3.9	2.00 V	185	53.3	-13.7
3	151.25	36.0 QP	43.5	-7.5	2.00 V	166	44.9	-8.9
4	276.38	31.0 QP	46.0	-15.0	1.01 V	189	38.6	-7.6
5	474.26	26.5 QP	46.0	-19.5	1.01 V	286	29.5	-3.0
6	643.04	30.4 QP	46.0	-15.6	2.00 V	269	30.0	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 = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.3 PK	74.0	-11.7	1.11 H	18	59.4	2.9
2	5150.00	52.6 AV	54.0	-1.4	1.11 H	18	49.7	2.9
3	*5180.00	114.6 PK			1.11 H	18	74.2	40.4
4	*5180.00	107.9 AV			1.11 H	18	67.5	40.4
5	#10360.00	56.3 PK	68.2	-11.9	1.11 H	28	48.3	8.0

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	5150.00	64.0 PK	74.0	-10.0	1.84 V	143	61.1	2.9
2	5150.00	53.2 AV	54.0	-0.8	1.84 V	143	50.3	2.9
3	*5180.00	116.2 PK			1.84 V	143	75.8	40.4
4	*5180.00	109.8 AV			1.84 V	143	69.4	40.4
5	#10360.00	56.6 PK	68.2	-11.6	1.84 V	164	48.6	8.0

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 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.0 PK	74.0	-12.0	1.11 H	18	59.1	2.9
2	5150.00	51.2 AV	54.0	-2.8	1.11 H	18	48.3	2.9
3	*5200.00	117.3 PK			1.11 H	18	77.0	40.3
4	*5200.00	110.4 AV			1.11 H	18	70.1	40.3
5	#10400.00	56.4 PK	68.2	-11.8	1.23 H	314	48.5	7.9

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	5150.00	59.8 PK	74.0	-14.2	1.84 V	145	56.9	2.9
2	5150.00	53.2 AV	54.0	-0.8	1.84 V	145	50.3	2.9
3	*5200.00	118.2 PK			1.84 V	145	77.9	40.3
4	*5200.00	111.8 AV			1.84 V	145	71.5	40.3
5	#10480.00	56.3 PK	68.2	-11.9	1.77 V	164	48.5	7.8

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 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	58.5 PK	74.0	-15.5	1.11 H	18	55.6	2.9
2	5150.00	50.0 AV	54.0	-4.0	1.11 H	18	47.1	2.9
3	*5240.00	117.1 PK			1.11 H	18	76.9	40.2
4	*5240.00	110.4 AV			1.11 H	18	70.2	40.2
5	#10480.00	56.1 PK	68.2	-12.1	1.31 H	25	48.3	7.8

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	59.5 PK	74.0	-14.5	1.84 V	145	56.6	2.9
2	5150.00	51.2 AV	54.0	-2.8	1.84 V	145	48.3	2.9
3	*5240.00	118.3 PK			1.84 V	145	78.1	40.2
4	*5240.00	111.8 AV			1.84 V	145	71.6	40.2
5	#10480.00	56.2 PK	68.2	-12.0	1.77 V	164	48.4	7.8

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 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	112.1 PK			1.39 H	23	72.0	40.1
2	*5260.00	105.8 AV			1.39 H	23	65.7	40.1
3	5350.00	57.5 PK	74.0	-16.5	1.39 H	23	55.1	2.4
4	5350.00	48.6 AV	54.0	-5.4	1.39 H	23	46.2	2.4
5	#10520.00	57.2 PK	68.2	-11.0	1.31 H	34	49.3	7.9

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	*5260.00	114.7 PK			1.72 V	151	74.6	40.1
2	*5260.00	108.0 AV			1.72 V	151	67.9	40.1
3	5350.00	58.3 PK	74.0	-15.7	1.72 V	151	55.9	2.4
4	5350.00	49.5 AV	54.0	-4.5	1.72 V	151	47.1	2.4
5	#10520.00	56.3 PK	68.2	-11.9	1.99 V	152	48.4	7.9

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 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	112.8 PK			1.39 H	23	72.9	39.9
2	*5300.00	105.0 AV			1.39 H	23	65.1	39.9
3	10600.00	56.4 PK	74.0	-17.6	1.41 H	36	48.3	8.1
4	10600.00	46.5 AV	54.0	-7.5	1.41 H	36	38.4	8.1

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	*5300.00	113.9 PK			1.77 V	154	74.0	39.9
2	*5300.00	107.4 AV			1.77 V	154	67.5	39.9
3	10600.00	56.7 PK	74.0	-17.3	1.63 V	166	48.6	8.1
4	10600.00	46.7 AV	54.0	-7.3	1.63 V	166	38.6	8.1

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 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	112.7 PK			1.04 H	23	72.8	39.9
2	*5320.00	105.5 AV			1.04 H	23	65.6	39.9
3	5350.00	59.6 PK	74.0	-14.4	1.04 H	23	57.2	2.4
4	5350.00	49.6 AV	54.0	-4.4	1.04 H	23	47.2	2.4
5	10640.00	56.3 PK	74.0	-17.7	1.33 H	25	48.4	7.9
6	10640.00	46.1 AV	54.0	-7.9	1.33 H	25	38.2	7.9

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	*5320.00	113.9 PK			1.88 V	155	74.0	39.9
2	*5320.00	107.2 AV			1.88 V	155	67.3	39.9
3	5350.00	61.4 PK	74.0	-12.6	1.88 V	155	59.0	2.4
4	5350.00	50.9 AV	54.0	-3.1	1.88 V	155	48.5	2.4
5	10640.00	56.3 PK	74.0	-17.7	1.88 V	163	48.4	7.9
6	10640.00	46.2 AV	54.0	-7.8	1.88 V	163	38.3	7.9

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 802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22°C, 66% RH
Tested By	Randy Wu		

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	58.4 PK	74.0	-15.6	1.80 H	45	56.1	2.3
2	5460.00	45.7 AV	54.0	-8.3	1.80 H	45	43.4	2.3
3	#5470.00	58.7 PK	68.2	-9.5	1.80 H	45	56.2	2.5
4	*5500.00	113.7 PK			1.80 H	45	73.6	40.1
5	*5500.00	101.6 AV			1.80 H	45	61.5	40.1
6	11000.00	56.5 PK	74.0	-17.5	1.39 H	36	48.6	7.9
7	11000.00	44.8 AV	54.0	-9.2	1.39 H	36	36.9	7.9

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	59.7 PK	74.0	-14.3	2.41 V	187	57.4	2.3
2	5460.00	52.2 AV	54.0	-1.8	2.41 V	187	49.9	2.3
3	#5470.00	66.8 PK	68.2	-1.4	2.41 V	187	64.3	2.5
4	*5500.00	116.4 PK			2.41 V	187	76.3	40.1
5	*5500.00	104.3 AV			2.41 V	187	64.2	40.1
6	11000.00	56.4 PK	74.0	-17.6	1.69 V	162	48.5	7.9
7	11000.00	44.7 AV	54.0	-9.3	1.69 V	162	36.8	7.9

Remarks:

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



RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22°C, 66% RH
Tested By	Randy Wu		

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	114.3 PK			1.83 H	45	73.7	40.6
2	*5580.00	103.4 AV			1.83 H	45	62.8	40.6
3	11160.00	55.9 PK	74.0	-18.1	1.45 H	41	47.3	8.6
4	11160.00	45.4 AV	54.0	-8.6	1.45 H	41	36.8	8.6

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	*5580.00	117.2 PK			2.49 V	180	76.6	40.6
2	*5580.00	106.2 AV			2.49 V	180	65.6	40.6
3	11160.00	57.2 PK	74.0	-16.8	1.73 V	169	48.6	8.6
4	11160.00	45.9 AV	54.0	-8.1	1.73 V	169	37.3	8.6

Remarks:

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



RF Mode	TX 802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	112.4 PK			1.52 H	162	71.1	41.3
2	*5700.00	105.7 AV			1.52 H	162	64.4	41.3
3	#5725.00	59.5 PK	68.2	-8.7	1.52 H	162	55.7	3.8
4	11400.00	57.2 PK	74.0	-16.8	1.64 H	147	48.3	8.9
5	11400.00	47.2 AV	54.0	-6.8	1.64 H	147	38.3	8.9

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	*5700.00	115.1 PK			2.36 V	191	73.8	41.3
2	*5700.00	107.9 AV			2.36 V	191	66.6	41.3
3	#5725.00	61.5 PK	68.2	-6.7	2.36 V	191	57.7	3.8
4	11400.00	57.2 PK	74.0	-16.8	2.22 V	187	48.3	8.9
5	11400.00	47.2 AV	54.0	-6.8	2.22 V	187	38.3	8.9

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 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	57.1 PK	68.2	-11.1	1.52 H	162	54.6	2.5
2	*5720.00	114.6 PK			1.52 H	162	73.2	41.4
3	*5720.00	107.4 AV			1.52 H	162	66.0	41.4
4	#5925.00	58.9 PK	68.2	-9.3	1.52 H	162	55.0	3.9
5	11440.00	57.2 PK	74.0	-16.8	1.61 H	171	48.2	9.0
6	11440.00	46.3 AV	54.0	-7.7	1.61 H	171	37.3	9.0

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	59.0 PK	68.2	-9.2	2.36 V	191	56.5	2.5
2	*5720.00	116.9 PK			2.36 V	191	75.5	41.4
3	*5720.00	110.3 AV			2.36 V	191	68.9	41.4
4	#5925.00	59.9 PK	68.2	-8.3	2.36 V	191	56.0	3.9
5	11440.00	57.4 PK	74.0	-16.6	1.82 V	331	48.4	9.0
6	11440.00	47.3 AV	54.0	-6.7	1.82 V	331	38.3	9.0

Remarks:

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



RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5627.60	59.3 PK	68.2	-8.9	1.61 H	172	56.0	3.3
2	*5745.00	119.0 PK			1.61 H	172	77.5	41.5
3	*5745.00	109.4 AV			1.61 H	172	67.9	41.5
4	#5943.60	60.3 PK	68.2	-7.9	1.61 H	172	56.4	3.9
5	11490.00	57.2 PK	74.0	-16.8	1.71 H	133	48.1	9.1
6	11490.00	47.3 AV	54.0	-6.7	1.71 H	133	38.2	9.1
7	#17235.00	64.4 PK	68.2	-3.8	1.57 H	259	54.6	9.8

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5629.20	59.7 PK	68.2	-8.5	2.25 V	193	56.4	3.3
2	*5745.00	120.4 PK			2.25 V	193	78.9	41.5
3	*5745.00	112.3 AV			2.25 V	193	70.8	41.5
4	#5963.20	58.5 PK	68.2	-9.7	2.25 V	193	54.3	4.2
5	11490.00	60.1 PK	74.0	-13.9	2.71 V	269	51.0	9.1
6	11490.00	49.4 AV	54.0	-4.6	2.71 V	269	40.3	9.1
7	#17235.00	67.8 PK	68.2	-0.4	2.71 V	269	58.0	9.8

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 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5625.20	58.4 PK	68.2	-9.8	1.72 H	161	55.1	3.3
2	*5785.00	117.4 PK			1.72 H	161	75.8	41.6
3	*5785.00	107.8 AV			1.72 H	161	66.2	41.6
4	#5976.00	58.9 PK	68.2	-9.3	1.72 H	161	54.7	4.2
5	11570.00	57.3 PK	74.0	-16.7	1.82 H	155	48.1	9.2
6	11570.00	47.0 AV	54.0	-7.0	1.82 H	155	37.8	9.2
7	#17355.00	66.4 PK	68.2	-1.8	1.57 H	259	56.3	10.1

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	#5607.60	59.5 PK	68.2	-8.7	2.36 V	191	56.3	3.2
2	*5785.00	120.5 PK			2.36 V	191	78.9	41.6
3	*5785.00	111.0 AV			2.36 V	191	69.4	41.6
4	#5926.00	61.0 PK	68.2	-7.2	2.36 V	191	57.1	3.9
5	11570.00	60.6 PK	74.0	-13.4	1.82 V	197	51.4	9.2
6	11570.00	49.7 AV	54.0	-4.3	1.82 V	197	40.5	9.2
7	#17355.00	68.1 PK	68.2	-0.1	2.71 V	269	58.0	10.1

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 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5643.20	60.1 PK	68.2	-8.1	1.61 H	172	56.7	3.4
2	*5825.00	117.8 PK			1.61 H	172	76.2	41.6
3	*5825.00	108.5 AV			1.61 H	172	66.9	41.6
4	#5940.80	58.8 PK	68.2	-9.4	1.61 H	172	54.9	3.9
5	11650.00	57.3 PK	74.0	-16.7	1.52 H	171	48.3	9.0
6	11650.00	47.2 AV	54.0	-6.8	1.52 H	171	38.2	9.0
7	#17475.00	66.2 PK	68.2	-2.0	1.57 H	259	55.9	10.3

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	#5624.00	60.2 PK	68.2	-8.0	2.36 V	191	56.9	3.3
2	*5825.00	121.2 PK			2.36 V	191	79.6	41.6
3	*5825.00	112.5 AV			2.36 V	191	70.9	41.6
4	#5976.00	59.0 PK	68.2	-9.2	2.36 V	191	54.8	4.2
5	11650.00	60.4 PK	74.0	-13.6	2.22 V	171	51.4	9.0
6	11650.00	49.7 AV	54.0	-4.3	2.22 V	171	40.7	9.0
7	#17475.00	68.0 PK	68.2	-0.2	2.71 V	269	57.7	10.3

Remarks:

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



RF Mode	TX 802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.2 PK	74.0	-10.8	1.73 H	30	60.3	2.9
2	5150.00	52.4 AV	54.0	-1.6	1.73 H	30	49.5	2.9
3	*5180.00	114.1 PK			1.73 H	30	73.7	40.4
4	*5180.00	106.0 AV			1.73 H	30	65.6	40.4
5	#10360.00	56.4 PK	68.2	-11.8	1.82 H	20	48.4	8.0

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	5150.00	68.1 PK	74.0	-5.9	2.60 V	173	65.2	2.9
2	5150.00	53.8 AV	54.0	-0.2	2.60 V	173	50.9	2.9
3	*5180.00	118.7 PK			2.60 V	173	78.3	40.4
4	*5180.00	109.1 AV			2.60 V	173	68.7	40.4
5	#10360.00	56.5 PK	68.2	-11.7	2.60 V	173	48.5	8.0

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 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.8 PK	74.0	-11.2	1.82 H	30	59.9	2.9
2	5150.00	52.4 AV	54.0	-1.6	1.82 H	30	49.5	2.9
3	*5200.00	118.8 PK			1.82 H	30	78.5	40.3
4	*5200.00	110.0 AV			1.82 H	30	69.7	40.3
5	#10400.00	56.2 PK	68.2	-12.0	1.88 H	12	48.3	7.9

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	5150.00	64.7 PK	74.0	-9.3	1.87 V	163	61.8	2.9
2	5150.00	53.7 AV	54.0	-0.3	1.87 V	163	50.8	2.9
3	*5200.00	119.9 PK			1.87 V	163	79.6	40.3
4	*5200.00	110.7 AV			1.87 V	163	70.4	40.3
5	#10360.00	56.7 PK	68.2	-11.5	1.93 V	153	48.7	8.0

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 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	59.7 PK	74.0	-14.3	1.82 H	34	56.8	2.9
2	5150.00	49.8 AV	54.0	-4.2	1.82 H	34	46.9	2.9
3	*5240.00	118.0 PK			1.82 H	34	77.8	40.2
4	*5240.00	109.5 AV			1.82 H	34	69.3	40.2
5	#10480.00	56.3 PK	68.2	-11.9	1.88 H	52	48.5	7.8

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	60.4 PK	74.0	-13.6	1.87 V	157	57.5	2.9
2	5150.00	51.1 AV	54.0	-2.9	1.87 V	157	48.2	2.9
3	*5240.00	118.8 PK			1.87 V	157	78.6	40.2
4	*5240.00	110.2 AV			1.87 V	157	70.0	40.2
5	#10480.00	56.4 PK	68.2	-11.8	1.89 V	156	48.6	7.8

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 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	114.4 PK			1.39 H	31	74.3	40.1
2	*5260.00	105.4 AV			1.39 H	31	65.3	40.1
3	5350.00	58.9 PK	74.0	-15.1	1.39 H	31	56.5	2.4
4	5350.00	49.9 AV	54.0	-4.1	1.39 H	31	47.5	2.4
5	#10520.00	56.2 PK	68.2	-12.0	1.31 H	20	48.3	7.9

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	*5260.00	115.2 PK			1.82 V	155	75.1	40.1
2	*5260.00	106.8 AV			1.82 V	155	66.7	40.1
3	5350.00	58.9 PK	74.0	-15.1	1.82 V	155	56.5	2.4
4	5350.00	49.1 AV	54.0	-4.9	1.82 V	155	46.7	2.4
5	#10520.00	56.5 PK	68.2	-11.7	1.86 V	164	48.6	7.9

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 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	113.4 PK			1.39 H	23	73.5	39.9
2	*5300.00	104.6 AV			1.39 H	23	64.7	39.9
3	10600.00	56.5 PK	74.0	-17.5	1.33 H	21	48.4	8.1
4	10600.00	46.4 AV	54.0	-7.6	1.33 H	21	38.3	8.1

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	*5300.00	114.2 PK			1.72 V	151	74.3	39.9
2	*5300.00	105.7 AV			1.72 V	151	65.8	39.9
3	10600.00	56.7 PK	74.0	-17.3	1.89 V	163	48.6	8.1
4	10600.00	46.3 AV	54.0	-7.7	1.89 V	163	38.2	8.1

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 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	114.2 PK			1.39 H	23	74.3	39.9
2	*5320.00	104.2 AV			1.39 H	23	64.3	39.9
3	5350.00	64.1 PK	74.0	-9.9	1.39 H	23	61.7	2.4
4	5350.00	52.0 AV	54.0	-2.0	1.39 H	23	49.6	2.4
5	10640.00	56.3 PK	74.0	-17.7	1.33 H	31	48.4	7.9
6	10640.00	46.3 AV	54.0	-7.7	1.33 H	31	38.4	7.9

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	*5320.00	114.4 PK			1.72 V	151	74.5	39.9
2	*5320.00	105.5 AV			1.72 V	151	65.6	39.9
3	5350.00	63.9 PK	74.0	-10.1	1.72 V	151	61.5	2.4
4	5350.00	52.5 AV	54.0	-1.5	1.72 V	151	50.1	2.4
5	10640.00	56.8 PK	74.0	-17.2	1.72 V	147	48.9	7.9
6	10640.00	46.2 AV	54.0	-7.8	1.72 V	147	38.3	7.9

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 (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	57.9 PK	74.0	-16.1	1.61 H	172	55.6	2.3
2	5460.00	47.9 AV	54.0	-6.1	1.61 H	172	45.6	2.3
3	#5470.00	66.3 PK	68.2	-1.9	1.61 H	172	63.8	2.5
4	*5500.00	113.4 PK			1.61 H	172	73.3	40.1
5	*5500.00	104.0 AV			1.61 H	172	63.9	40.1
6	11000.00	56.3 PK	74.0	-17.7	1.52 H	141	48.4	7.9
7	11000.00	46.1 AV	54.0	-7.9	1.52 H	141	38.2	7.9

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	57.9 PK	74.0	-16.1	2.36 V	191	55.6	2.3
2	5460.00	49.2 AV	54.0	-4.8	2.36 V	191	46.9	2.3
3	#5470.00	67.8 PK	68.2	-0.4	2.36 V	191	65.3	2.5
4	*5500.00	113.6 PK			2.38 V	191	73.5	40.1
5	*5500.00	106.7 AV			2.38 V	191	66.6	40.1
6	11000.00	56.3 PK	74.0	-17.7	2.14 V	171	48.4	7.9
7	11000.00	46.1 AV	54.0	-7.9	2.14 V	171	38.2	7.9

Remarks:

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



RF Mode	TX 802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	114.7 PK			1.61 H	171	74.1	40.6
2	*5580.00	105.5 AV			1.61 H	171	64.9	40.6
3	11160.00	57.0 PK	74.0	-17.0	1.54 H	163	48.4	8.6
4	11160.00	46.8 AV	54.0	-7.2	1.54 H	163	38.2	8.6

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	*5580.00	116.8 PK			2.36 V	191	76.2	40.6
2	*5580.00	107.7 AV			2.36 V	191	67.1	40.6
3	11160.00	56.9 PK	74.0	-17.1	2.31 V	171	48.3	8.6
4	11160.00	46.8 AV	54.0	-7.2	2.31 V	171	38.2	8.6

Remarks:

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



RF Mode	TX 802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	110.5 PK			1.61 H	172	69.2	41.3
2	*5700.00	101.5 AV			1.61 H	172	60.2	41.3
3	#5725.00	59.6 PK	68.2	-8.6	1.61 H	172	55.8	3.8
4	11400.00	57.1 PK	74.0	-16.9	1.41 H	156	48.2	8.9
5	11400.00	47.1 AV	54.0	-6.9	1.41 H	156	38.2	8.9

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	*5700.00	113.0 PK			2.36 V	188	71.7	41.3
2	*5700.00	103.9 AV			2.36 V	188	62.6	41.3
3	#5725.00	59.1 PK	68.2	-9.1	2.36 V	188	55.3	3.8
4	11400.00	57.4 PK	74.0	-16.6	2.22 V	171	48.5	8.9
5	11400.00	47.3 AV	54.0	-6.7	2.22 V	171	38.4	8.9

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 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	57.1 PK	68.2	-11.1	1.61 H	172	54.6	2.5
2	*5720.00	115.4 PK			1.61 H	172	74.0	41.4
3	*5720.00	107.1 AV			1.61 H	172	65.7	41.4
4	#5925.00	58.6 PK	68.2	-9.6	1.61 H	172	54.7	3.9
5	11440.00	57.7 PK	74.0	-16.3	1.67 H	182	48.7	9.0
6	11440.00	47.2 AV	54.0	-6.8	1.67 H	182	38.2	9.0

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	57.8 PK	68.2	-10.4	2.36 V	191	55.3	2.5
2	*5720.00	117.3 PK			2.36 V	191	75.9	41.4
3	*5720.00	108.5 AV			2.36 V	191	67.1	41.4
4	#5925.00	58.0 PK	68.2	-10.2	2.36 V	191	54.1	3.9
5	11440.00	57.4 PK	74.0	-16.6	2.31 V	178	48.4	9.0
6	11440.00	47.3 AV	54.0	-6.7	2.31 V	178	38.3	9.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.20	58.8 PK	68.2	-9.4	1.61 H	172	55.4	3.4
2	*5745.00	118.0 PK			1.61 H	172	76.5	41.5
3	*5745.00	108.6 AV			1.61 H	172	67.1	41.5
4	#5937.20	59.7 PK	68.2	-8.5	1.61 H	172	55.7	4.0
5	11490.00	57.4 PK	74.0	-16.6	1.52 H	176	48.3	9.1
6	11490.00	46.9 AV	54.0	-7.1	1.52 H	176	37.8	9.1
7	#17235.00	66.5 PK	68.2	-1.7	1.57 H	259	56.7	9.8

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.00	59.0 PK	68.2	-9.2	2.36 V	191	55.6	3.4
2	*5745.00	120.8 PK			2.36 V	191	79.3	41.5
3	*5745.00	109.8 AV			2.36 V	191	68.3	41.5
4	#5941.60	58.9 PK	68.2	-9.3	2.36 V	191	55.0	3.9
5	11490.00	60.6 PK	74.0	-13.4	2.21 V	171	51.5	9.1
6	11490.00	50.0 AV	54.0	-4.0	2.21 V	171	40.9	9.1
7	#17235.00	67.8 PK	68.2	-0.4	2.71 V	266	58.0	9.8

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 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5636.00	58.4 PK	68.2	-9.8	1.61 H	172	55.0	3.4
2	*5785.00	116.9 PK			1.61 H	172	75.3	41.6
3	*5785.00	107.0 AV			1.61 H	172	65.4	41.6
4	#5985.60	58.6 PK	68.2	-9.6	1.61 H	172	54.2	4.4
5	11570.00	58.6 PK	74.0	-15.4	1.57 H	255	49.4	9.2
6	11570.00	47.6 AV	54.0	-6.4	1.57 H	255	38.4	9.2
7	#17355.00	65.8 PK	68.2	-2.4	1.57 H	259	55.7	10.1

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	#5606.00	58.4 PK	68.2	-9.8	2.36 V	191	55.2	3.2
2	*5785.00	118.9 PK			2.36 V	191	77.3	41.6
3	*5785.00	108.5 AV			2.36 V	191	66.9	41.6
4	#5970.40	59.1 PK	68.2	-9.1	2.36 V	191	54.9	4.2
5	11570.00	60.8 PK	74.0	-13.2	2.71 V	269	51.6	9.2
6	11570.00	48.6 AV	54.0	-5.4	2.71 V	269	39.4	9.2
7	#17355.00	67.4 PK	68.2	-0.8	2.71 V	269	57.3	10.1

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 (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5610.40	58.4 PK	68.2	-9.8	1.61 H	172	55.2	3.2
2	*5825.00	118.5 PK			1.61 H	172	76.9	41.6
3	*5825.00	106.2 AV			1.61 H	172	64.6	41.6
4	#5929.60	59.0 PK	68.2	-9.2	1.61 H	172	55.0	4.0
5	11650.00	58.8 PK	74.0	-15.2	1.66 H	241	49.8	9.0
6	11650.00	48.4 AV	54.0	-5.6	1.66 H	241	39.4	9.0
7	#17475.00	65.0 PK	68.2	-3.2	1.57 H	259	54.7	10.3

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	#5623.60	59.9 PK	68.2	-8.3	2.36 V	191	56.6	3.3
2	*5825.00	118.9 PK			2.36 V	191	77.3	41.6
3	*5825.00	108.6 AV			2.36 V	191	67.0	41.6
4	#5977.20	59.1 PK	68.2	-9.1	2.36 V	191	54.9	4.2
5	11650.00	61.1 PK	74.0	-12.9	2.71 V	269	52.1	9.0
6	11650.00	49.5 AV	54.0	-4.5	2.71 V	269	40.5	9.0
7	#17475.00	68.0 PK	68.2	-0.2	2.71 V	269	57.7	10.3

Remarks:

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



RF Mode	TX 802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.2 PK	74.0	-11.8	1.82 H	30	59.3	2.9
2	5150.00	51.9 AV	54.0	-2.1	1.82 H	30	49.0	2.9
3	*5190.00	108.5 PK			1.82 H	30	68.2	40.3
4	*5190.00	100.5 AV			1.82 H	30	60.2	40.3
5	#10380.00	56.5 PK	68.2	-11.7	1.82 H	14	48.6	7.9

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	5150.00	63.1 PK	74.0	-10.9	1.86 V	164	60.2	2.9
2	5150.00	53.2 AV	54.0	-0.8	1.86 V	164	50.3	2.9
3	*5190.00	111.6 PK			1.87 V	167	71.3	40.3
4	*5190.00	100.9 AV			1.87 V	167	60.6	40.3
5	#10380.00	56.4 PK	68.2	-11.8	1.87 V	122	48.5	7.9

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 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.5 PK	74.0	-10.5	1.82 H	30	60.6	2.9
2	5150.00	52.9 AV	54.0	-1.1	1.82 H	30	50.0	2.9
3	*5230.00	113.6 PK			1.82 H	30	73.4	40.2
4	*5230.00	105.5 AV			1.82 H	30	65.3	40.2
5	#10460.00	56.2 PK	68.2	-12.0	1.96 H	21	48.4	7.8

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	64.2 PK	74.0	-9.8	1.92 V	156	61.3	2.9
2	5150.00	53.7 AV	54.0	-0.3	1.92 V	156	50.8	2.9
3	*5230.00	114.3 PK			1.92 V	156	74.1	40.2
4	*5230.00	106.0 AV			1.92 V	156	65.8	40.2
5	#10460.00	56.3 PK	68.2	-11.9	2.01 V	166	48.5	7.8

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 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	111.3 PK			1.39 H	23	71.2	40.1
2	*5270.00	102.3 AV			1.39 H	23	62.2	40.1
3	5350.00	58.3 PK	74.0	-15.7	1.39 H	23	55.9	2.4
4	5350.00	49.0 AV	54.0	-5.0	1.39 H	23	46.6	2.4
5	#10540.00	56.5 PK	68.2	-11.7	1.33 H	20	48.6	7.9

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	*5270.00	112.8 PK			1.72 V	151	72.7	40.1
2	*5270.00	103.8 AV			1.72 V	151	63.7	40.1
3	5350.00	59.0 PK	74.0	-15.0	1.73 V	164	56.6	2.4
4	5350.00	49.8 AV	54.0	-4.2	1.73 V	164	47.4	2.4
5	#10540.00	56.2 PK	68.2	-12.0	1.86 V	134	48.3	7.9

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 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	108.6 PK			1.39 H	23	68.7	39.9
2	*5310.00	99.8 AV			1.39 H	23	59.9	39.9
3	5350.00	61.8 PK	74.0	-12.2	1.39 H	23	59.4	2.4
4	5350.00	51.5 AV	54.0	-2.5	1.39 H	23	49.1	2.4
5	10620.00	56.4 PK	74.0	-17.6	1.39 H	27	48.4	8.0
6	10620.00	46.3 AV	54.0	-7.7	1.39 H	27	38.3	8.0

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	*5310.00	110.9 PK			1.72 V	151	71.0	39.9
2	*5310.00	103.4 AV			1.72 V	151	63.5	39.9
3	5350.00	61.8 PK	74.0	-12.2	1.72 V	151	59.4	2.4
4	5350.00	52.7 AV	54.0	-1.3	1.72 V	151	50.3	2.4
5	10620.00	56.5 PK	74.0	-17.5	1.82 V	164	48.5	8.0
6	10620.00	46.3 AV	54.0	-7.7	1.82 V	164	38.3	8.0

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 (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.4 PK	74.0	-13.6	1.61 H	172	58.1	2.3
2	5460.00	48.9 AV	54.0	-5.1	1.61 H	172	46.6	2.3
3	#5470.00	66.0 PK	68.2	-2.2	1.61 H	172	63.5	2.5
4	*5510.00	109.2 PK			1.61 H	172	69.0	40.2
5	*5510.00	99.6 AV			1.61 H	172	59.4	40.2
6	11020.00	56.3 PK	74.0	-17.7	1.57 H	171	48.4	7.9
7	11020.00	46.3 AV	54.0	-7.7	1.57 H	171	38.4	7.9

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	62.3 PK	74.0	-11.7	2.39 V	191	60.0	2.3
2	5460.00	51.1 AV	54.0	-2.9	2.39 V	191	48.8	2.3
3	#5470.00	66.0 PK	68.2	-2.2	2.39 V	191	63.5	2.5
4	*5510.00	112.0 PK			2.39 V	191	71.8	40.2
5	*5510.00	103.0 AV			2.39 V	191	62.8	40.2
6	11020.00	56.5 PK	74.0	-17.5	2.31 V	154	48.6	7.9
7	11020.00	46.3 AV	54.0	-7.7	2.31 V	154	38.4	7.9

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 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	111.7 PK			1.61 H	172	71.2	40.5
2	*5550.00	102.0 AV			1.61 H	172	61.5	40.5
3	11110.00	56.8 PK	74.0	-17.2	1.58 H	171	48.4	8.4
4	11110.00	46.8 AV	54.0	-7.2	1.58 H	171	38.4	8.4

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	*5550.00	114.4 PK			2.36 V	191	73.9	40.5
2	*5550.00	104.9 AV			2.36 V	191	64.4	40.5
3	11110.00	56.9 PK	74.0	-17.1	2.14 V	182	48.5	8.4
4	11110.00	46.8 AV	54.0	-7.2	2.14 V	182	38.4	8.4

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	113.1 PK			1.61 H	172	71.8	41.3
2	*5670.00	103.7 AV			1.61 H	172	62.4	41.3
3	#5725.00	67.5 PK	68.2	-0.7	1.61 H	172	63.7	3.8
4	11340.00	57.6 PK	74.0	-16.4	1.55 H	136	48.7	8.9
5	11340.00	47.4 AV	54.0	-6.6	1.55 H	136	38.5	8.9

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	*5670.00	112.6 PK			2.36 V	191	71.3	41.3
2	*5670.00	105.0 AV			2.36 V	191	63.7	41.3
3	#5725.00	66.3 PK	68.2	-1.9	2.36 V	191	62.5	3.8
4	11340.00	57.5 PK	74.0	-16.5	2.31 V	182	48.6	8.9
5	11340.00	47.3 AV	54.0	-6.7	2.31 V	182	38.4	8.9

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 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	57.1 PK	68.2	-11.1	1.61 H	172	54.6	2.5
2	*5710.00	115.4 PK			1.61 H	172	74.1	41.3
3	*5710.00	107.2 AV			1.61 H	172	65.9	41.3
4	#5925.00	58.6 PK	68.2	-9.6	1.61 H	172	54.7	3.9
5	11420.00	57.7 PK	74.0	-16.3	1.67 H	182	48.7	9.0
6	11420.00	47.2 AV	54.0	-6.8	1.67 H	182	38.2	9.0

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	58.0 PK	68.2	-10.2	2.36 V	191	55.5	2.5
2	*5710.00	117.3 PK			2.36 V	191	76.0	41.3
3	*5710.00	109.2 AV			2.36 V	191	67.9	41.3
4	#5925.00	58.2 PK	68.2	-10.0	2.36 V	191	54.3	3.9
5	11420.00	57.4 PK	74.0	-16.6	2.31 V	178	48.4	9.0
6	11420.00	47.3 AV	54.0	-6.7	2.31 V	178	38.3	9.0

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 (HE40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5650.00	59.2 PK	68.2	-9.0	1.61 H	172	55.7	3.5
2	*5755.00	114.9 PK			1.61 H	172	73.3	41.6
3	*5755.00	105.0 AV			1.61 H	172	63.4	41.6
4	#5950.80	58.7 PK	68.2	-9.5	1.61 H	172	54.7	4.0
5	11510.00	57.5 PK	74.0	-16.5	1.64 H	214	48.4	9.1
6	11510.00	46.3 AV	54.0	-7.7	1.64 H	214	37.2	9.1
7	#17265.00	62.3 PK	68.2	-5.9	1.57 H	259	52.4	9.9

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	#5649.20	65.6 PK	68.2	-2.6	2.36 V	191	62.1	3.5
2	*5755.00	115.9 PK			2.36 V	191	74.3	41.6
3	*5755.00	105.8 AV			2.36 V	191	64.2	41.6
4	#5950.80	58.5 PK	68.2	-9.7	2.36 V	191	54.5	4.0
5	11510.00	58.5 PK	74.0	-15.5	2.71 V	269	49.4	9.1
6	11510.00	47.8 AV	54.0	-6.2	2.71 V	269	38.7	9.1
7	#17265.00	66.8 PK	68.2	-1.4	2.71 V	269	56.9	9.9

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 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5610.00	59.7 PK	68.2	-8.5	1.61 H	172	56.5	3.2
2	*5795.00	115.4 PK			1.61 H	172	73.8	41.6
3	*5795.00	104.8 AV			1.61 H	172	63.2	41.6
4	#5959.20	59.1 PK	68.2	-9.1	1.61 H	172	55.0	4.1
5	11590.00	58.0 PK	74.0	-16.0	1.55 H	255	48.9	9.1
6	11590.00	45.2 AV	54.0	-8.8	1.55 H	255	36.1	9.1
7	#17385.00	65.2 PK	68.2	-3.0	1.57 H	259	55.1	10.1

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	#5620.00	60.4 PK	68.2	-7.8	2.36 V	191	57.1	3.3
2	*5795.00	116.6 PK			2.39 V	191	75.0	41.6
3	*5795.00	105.6 AV			2.39 V	191	64.0	41.6
4	#5930.00	59.5 PK	68.2	-8.7	2.36 V	191	55.5	4.0
5	11590.00	58.5 PK	74.0	-15.5	2.71 V	255	49.4	9.1
6	11590.00	48.4 AV	54.0	-5.6	2.71 V	255	39.3	9.1
7	#17385.00	65.5 PK	68.2	-2.7	2.71 V	269	55.4	10.1

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 (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.0 PK	74.0	-13.0	1.82 H	30	58.1	2.9
2	5150.00	52.1 AV	54.0	-1.9	1.82 H	30	49.2	2.9
3	*5210.00	107.1 PK			1.82 H	30	66.8	40.3
4	*5210.00	96.9 AV			1.82 H	30	56.6	40.3
5	#10420.00	56.3 PK	68.2	-11.9	1.36 H	28	48.4	7.9

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	5150.00	64.0 PK	74.0	-10.0	1.87 V	163	61.1	2.9
2	5150.00	53.4 AV	54.0	-0.6	1.87 V	163	50.5	2.9
3	*5210.00	107.3 PK			1.87 V	163	67.0	40.3
4	*5210.00	98.2 AV			1.87 V	163	57.9	40.3
5	#10420.00	56.8 PK	68.2	-11.4	2.14 V	144	48.9	7.9

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 (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	105.6 PK			1.39 H	23	65.7	39.9
2	*5290.00	96.5 AV			1.39 H	23	56.6	39.9
3	5350.00	59.4 PK	74.0	-14.6	1.39 H	23	57.0	2.4
4	5350.00	51.5 AV	54.0	-2.5	1.39 H	23	49.1	2.4
5	#10580.00	56.5 PK	68.2	-11.7	1.33 H	36	48.6	7.9

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	*5290.00	107.3 PK			1.72 V	151	67.4	39.9
2	*5290.00	97.6 AV			1.72 V	151	57.7	39.9
3	5350.00	61.4 PK	74.0	-12.6	1.72 V	151	59.0	2.4
4	5350.00	53.1 AV	54.0	-0.9	1.72 V	151	50.7	2.4
5	#10580.00	56.3 PK	68.2	-11.9	1.82 V	141	48.4	7.9

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 (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.61 H	172	57.5	2.3
2	5460.00	50.6 AV	54.0	-3.4	1.61 H	172	48.3	2.3
3	#5470.00	62.1 PK	68.2	-6.1	1.61 H	172	59.6	2.5
4	*5530.00	105.2 PK			1.61 H	172	64.9	40.3
5	*5530.00	96.5 AV			1.61 H	172	56.2	40.3
6	11060.00	56.6 PK	74.0	-17.4	1.61 H	178	48.5	8.1
7	11060.00	47.0 AV	54.0	-7.0	1.61 H	178	38.9	8.1

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.3 PK	74.0	-8.7	2.36 V	191	63.0	2.3
2	5460.00	52.9 AV	54.0	-1.1	2.36 V	191	50.6	2.3
3	#5470.00	64.1 PK	68.2	-4.1	2.36 V	191	61.6	2.5
4	*5530.00	107.3 PK			2.36 V	191	67.0	40.3
5	*5530.00	99.3 AV			2.36 V	191	59.0	40.3
6	11060.00	56.6 PK	74.0	-17.4	2.33 V	178	48.5	8.1
7	11060.00	46.7 AV	54.0	-7.3	2.33 V	178	38.6	8.1

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 (HE80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	108.1 PK			1.61 H	172	67.2	40.9
2	*5610.00	100.2 AV			1.61 H	172	59.3	40.9
3	#5725.00	64.0 PK	68.2	-4.2	1.61 H	172	60.2	3.8
4	11220.00	57.1 PK	74.0	-16.9	1.54 H	174	48.5	8.6
5	11220.00	46.9 AV	54.0	-7.1	1.54 H	174	38.3	8.6

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	*5610.00	108.3 PK			2.41 V	171	67.4	40.9
2	*5610.00	99.5 AV			2.41 V	171	58.6	40.9
3	#5725.00	64.3 PK	68.2	-3.9	2.41 V	171	60.5	3.8
4	11220.00	57.2 PK	74.0	-16.8	2.22 V	182	48.6	8.6
5	11220.00	47.1 AV	54.0	-6.9	2.22 V	182	38.5	8.6

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 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	56.5 PK	68.2	-11.7	1.61 H	172	54.0	2.5
2	*5690.00	105.8 PK			1.61 H	172	64.5	41.3
3	*5690.00	96.4 AV			1.61 H	172	55.1	41.3
4	#5925.00	57.9 PK	68.2	-10.3	1.61 H	172	54.0	3.9
5	11380.00	56.8 PK	74.0	-17.2	1.52 H	164	47.8	9.0
6	11380.00	46.6 AV	54.0	-7.4	1.52 H	164	37.6	9.0

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	58.2 PK	68.2	-10.0	2.36 V	191	55.7	2.5
2	*5690.00	107.8 PK			2.36 V	191	66.5	41.3
3	*5690.00	97.8 AV			2.36 V	191	56.5	41.3
4	#5925.00	59.5 PK	68.2	-8.7	2.36 V	191	55.6	3.9
5	11380.00	57.5 PK	74.0	-16.5	2.14 V	165	48.5	9.0
6	11380.00	47.6 AV	54.0	-6.4	2.14 V	165	38.6	9.0

Remarks:

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



RF Mode	TX 802.11ax (HE80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	#5639.60	67.3 PK	68.2	-0.9	1.61 H	172	63.9	3.4
2	*5775.00	112.3 PK			1.61 H	172	70.8	41.5
3	*5775.00	102.3 AV			1.61 H	172	60.8	41.5
4	#5930.00	64.9 PK	68.2	-3.3	1.61 H	172	60.9	4.0
5	11550.00	56.8 PK	74.0	-17.2	1.55 H	223	47.6	9.2
6	11550.00	46.5 AV	54.0	-7.5	1.55 H	223	37.3	9.2
7	#17325.00	63.4 PK	68.2	-4.8	1.57 H	259	53.4	10.0

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	#5648.80	67.2 PK	68.2	-1.0	2.36 V	191	63.7	3.5
2	*5775.00	112.3 PK			2.36 V	191	70.8	41.5
3	*5775.00	102.7 AV			2.36 V	191	61.2	41.5
4	#5931.60	64.5 PK	68.2	-3.7	2.36 V	191	60.5	4.0
5	11550.00	58.5 PK	74.0	-15.5	2.52 V	263	49.3	9.2
6	11550.00	48.4 AV	54.0	-5.6	2.52 V	263	39.2	9.2
7	#17325.00	64.0 PK	68.2	-4.2	2.71 V	269	54.0	10.0

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 (HE160)	Channel	CH 50 : 5250 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

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	1.82 H	30	57.5	2.9
2	5150.00	51.9 AV	54.0	-2.1	1.82 H	30	49.0	2.9
3	*5250.00	103.2 PK			1.82 H	30	63.1	40.1
4	*5250.00	93.9 AV			1.82 H	30	53.8	40.1
5	5350.00	59.3 PK	74.0	-14.7	1.82 H	30	56.9	2.4
6	5350.00	51.1 AV	54.0	-2.9	1.82 H	30	48.7	2.4
7	#10500.00	55.8 PK	68.2	-12.4	1.66 H	21	48.1	7.7

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	62.6 PK	74.0	-11.4	1.87 V	163	59.7	2.9
2	5150.00	53.5 AV	54.0	-0.5	1.87 V	163	50.6	2.9
3	*5250.00	102.2 PK			1.87 V	163	62.1	40.1
4	*5250.00	94.4 AV			1.87 V	163	54.3	40.1
5	5350.00	62.2 PK	74.0	-11.8	1.87 V	163	59.8	2.4
6	5350.00	52.3 AV	54.0	-1.7	1.87 V	163	49.9	2.4
7	#10500.00	56.1 PK	68.2	-12.1	1.97 V	156	48.4	7.7

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.



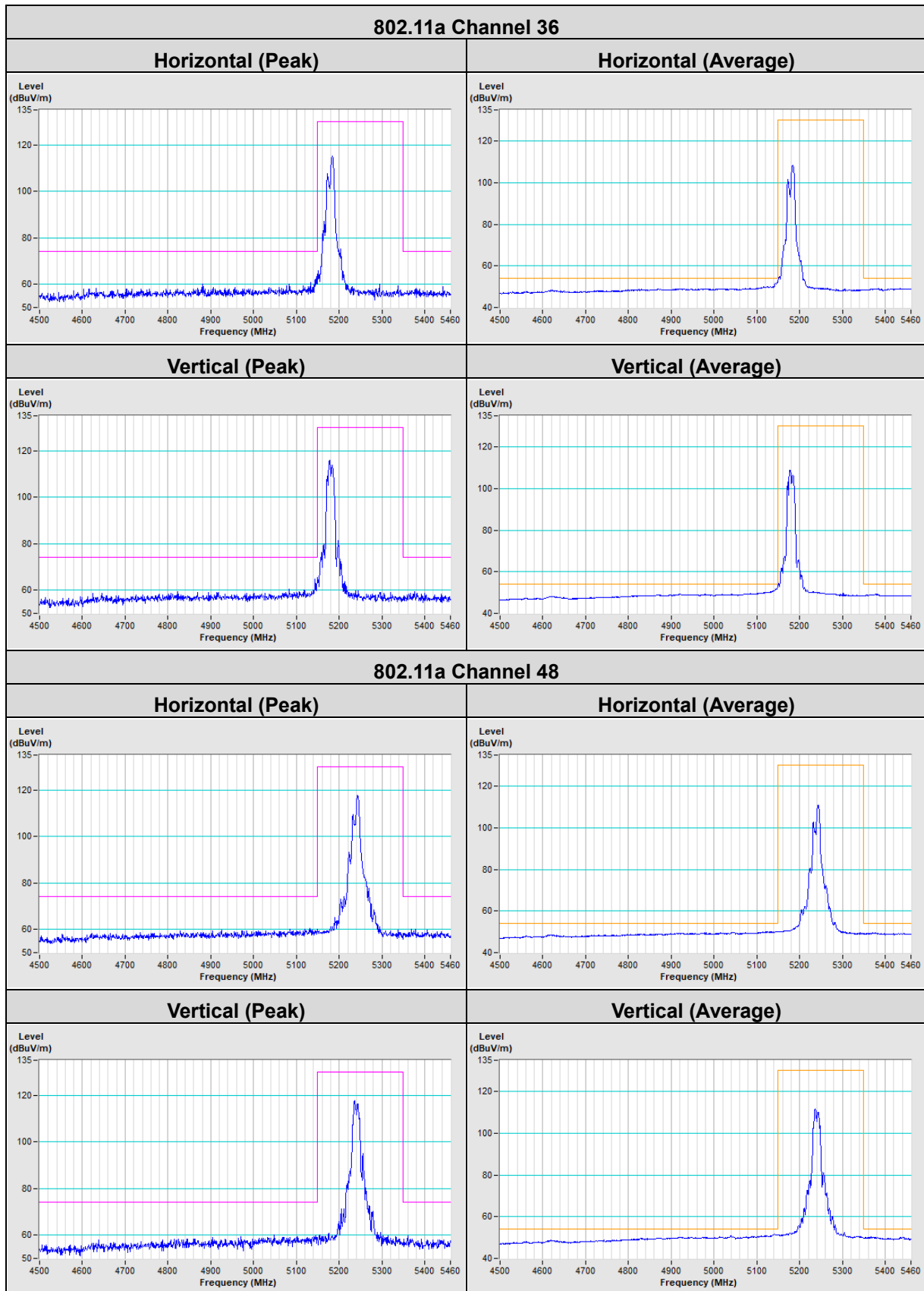
RF Mode	TX 802.11ax (HE160)	Channel	CH 114 : 5570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Randy Wu		

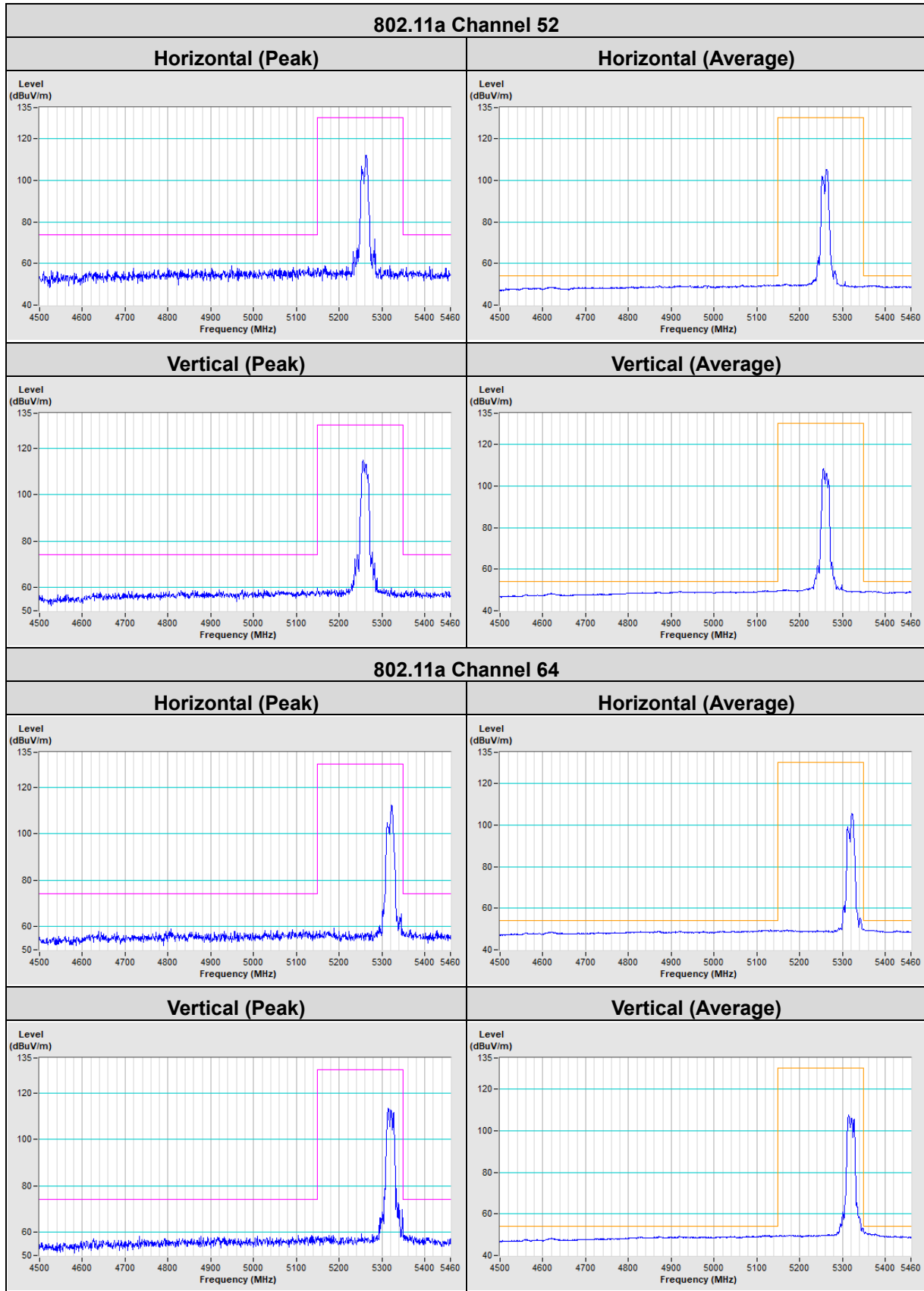
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.4 PK	74.0	-8.6	1.61 H	172	63.1	2.3
2	5460.00	48.5 AV	54.0	-5.5	1.61 H	172	46.2	2.3
3	#5470.00	57.9 PK	68.2	-10.3	1.61 H	172	55.4	2.5
4	*5570.00	102.2 PK			1.61 H	172	61.6	40.6
5	*5570.00	92.5 AV			1.61 H	172	51.9	40.6
6	#5725.00	60.6 PK	68.2	-7.6	1.61 H	172	56.8	3.8
7	11140.00	56.7 PK	74.0	-17.3	1.52 H	171	48.3	8.4
8	11140.00	46.6 AV	54.0	-7.4	1.52 H	171	38.2	8.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.8 PK	74.0	-13.2	2.36 V	191	58.5	2.3
2	5460.00	49.7 AV	54.0	-4.3	2.36 V	191	47.4	2.3
3	#5470.00	60.9 PK	68.2	-7.3	2.36 V	191	58.4	2.5
4	*5570.00	104.6 PK			2.36 V	191	64.0	40.6
5	*5570.00	94.6 AV			2.36 V	191	54.0	40.6
6	#5725.00	59.7 PK	68.2	-8.5	2.36 V	191	55.9	3.8
7	11140.00	57.0 PK	74.0	-17.0	2.36 V	158	48.6	8.4
8	11140.00	46.6 AV	54.0	-7.4	2.36 V	158	38.2	8.4

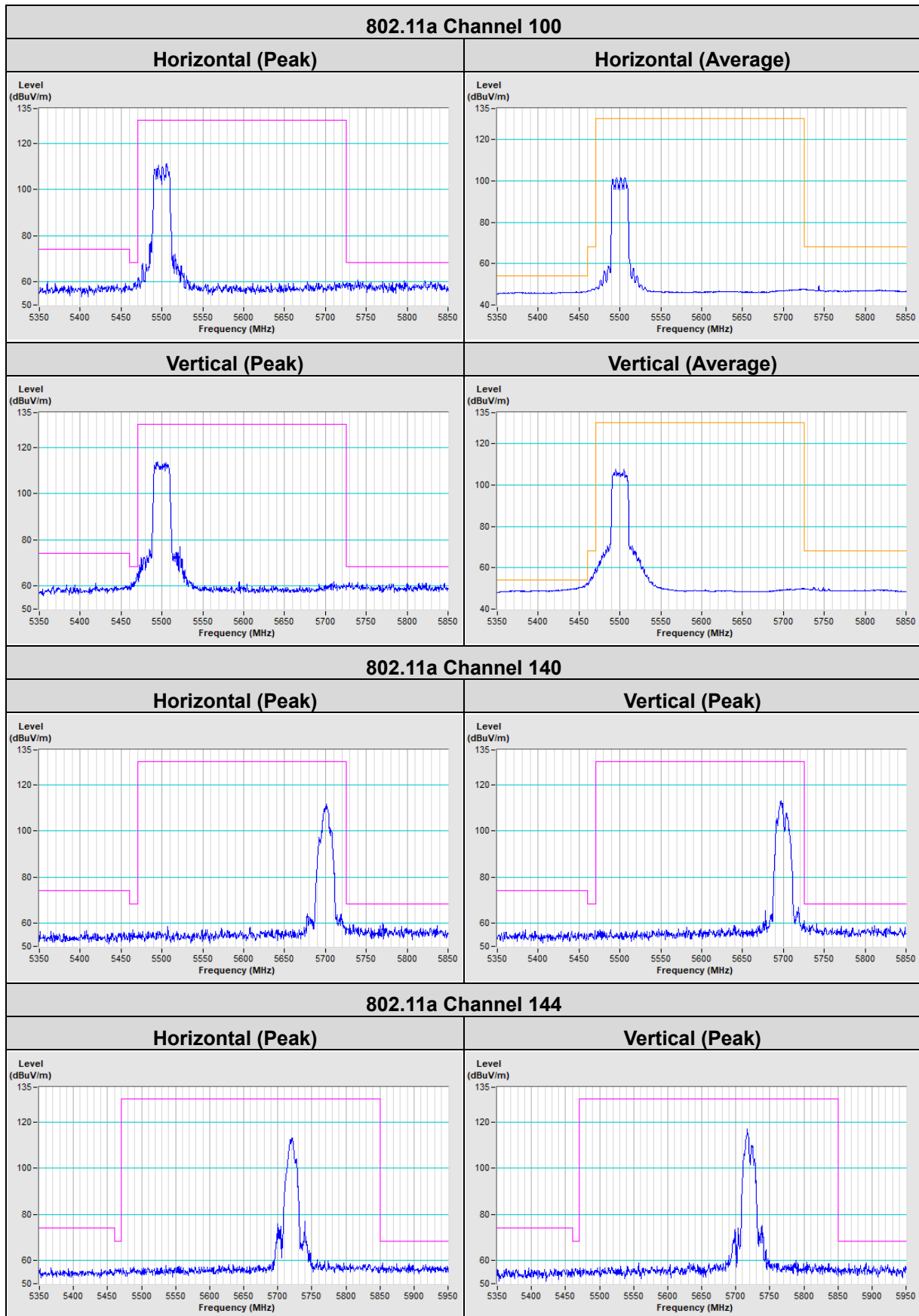
Remarks:

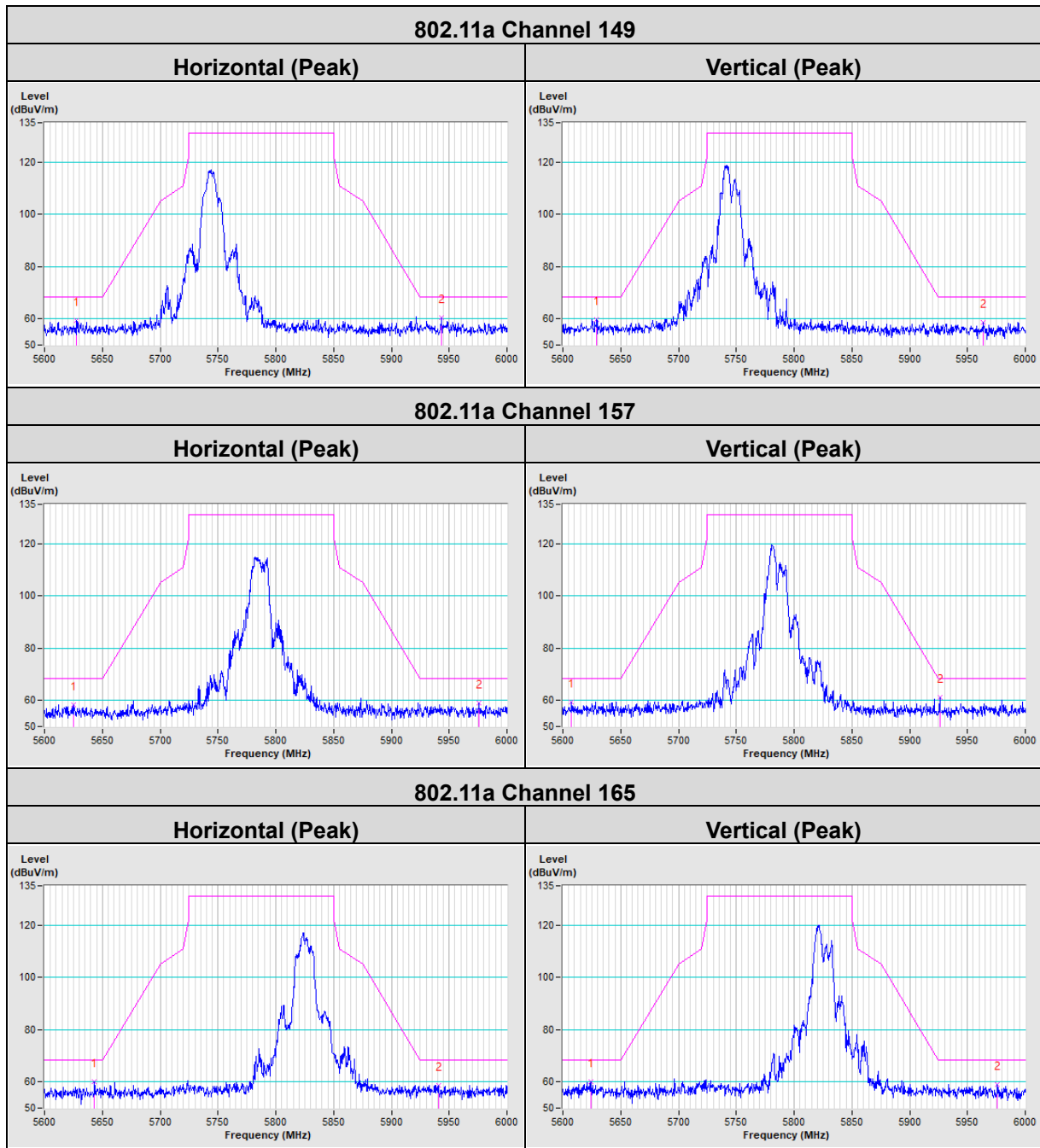
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency,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

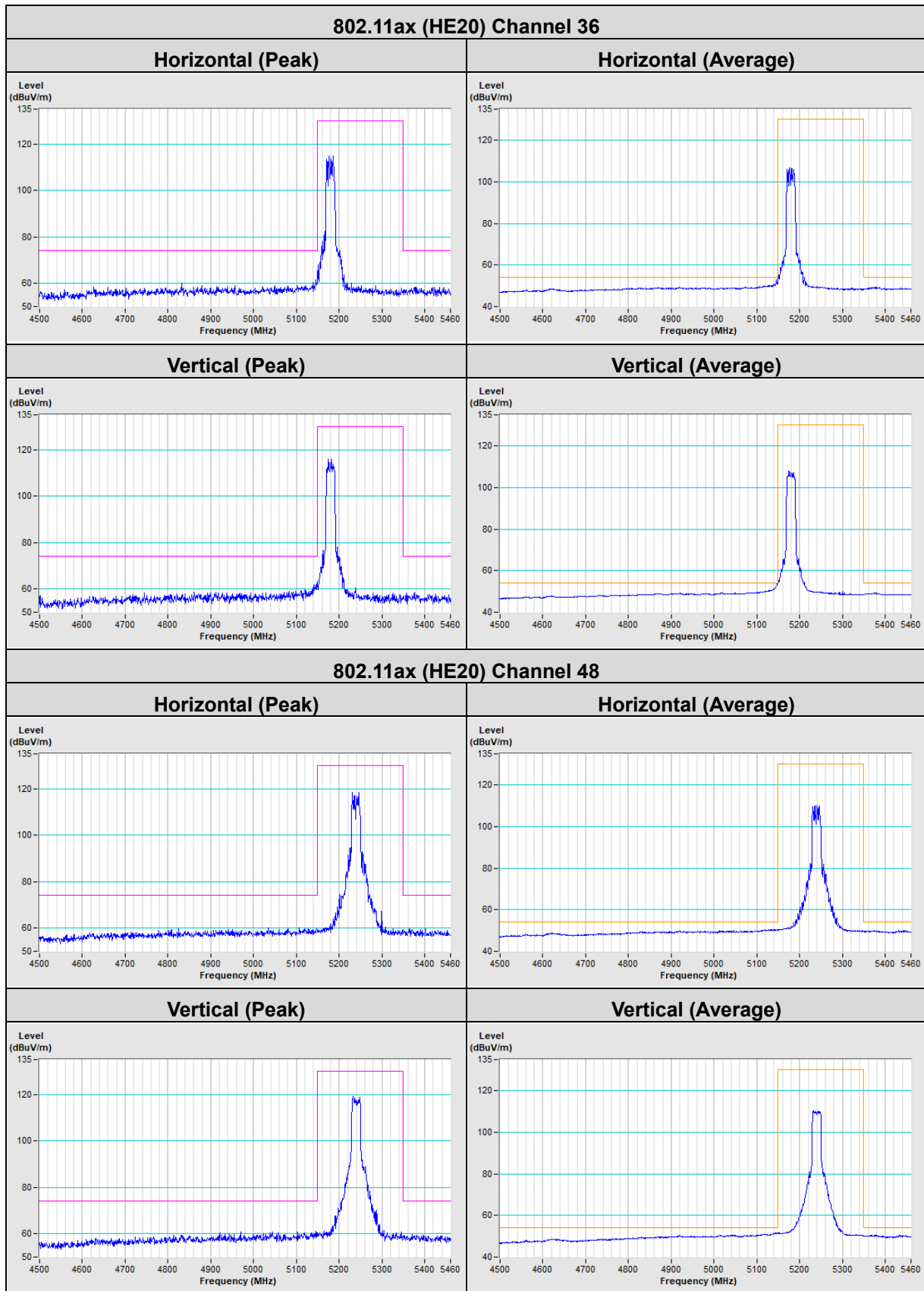
Plot of Band Edge

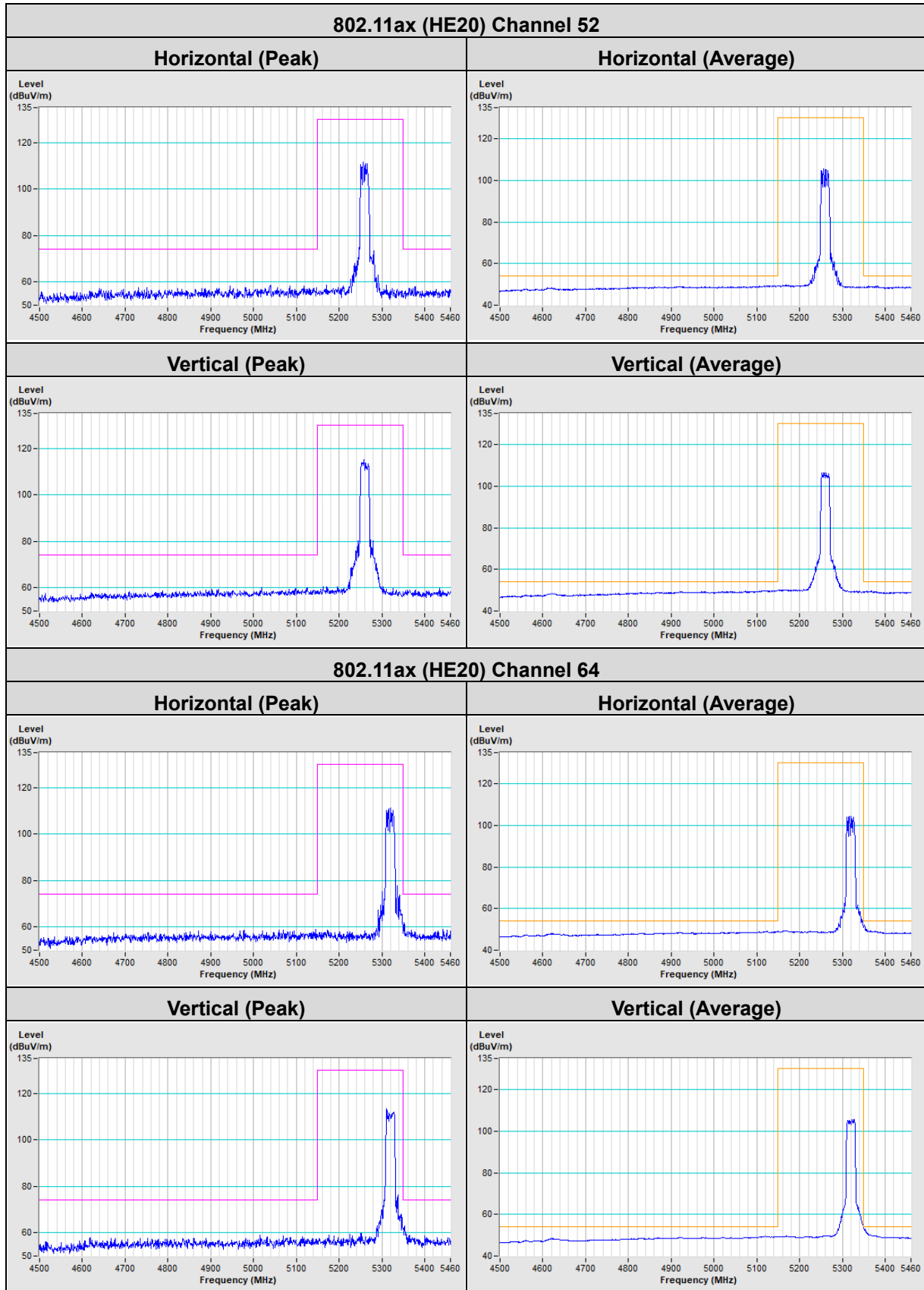




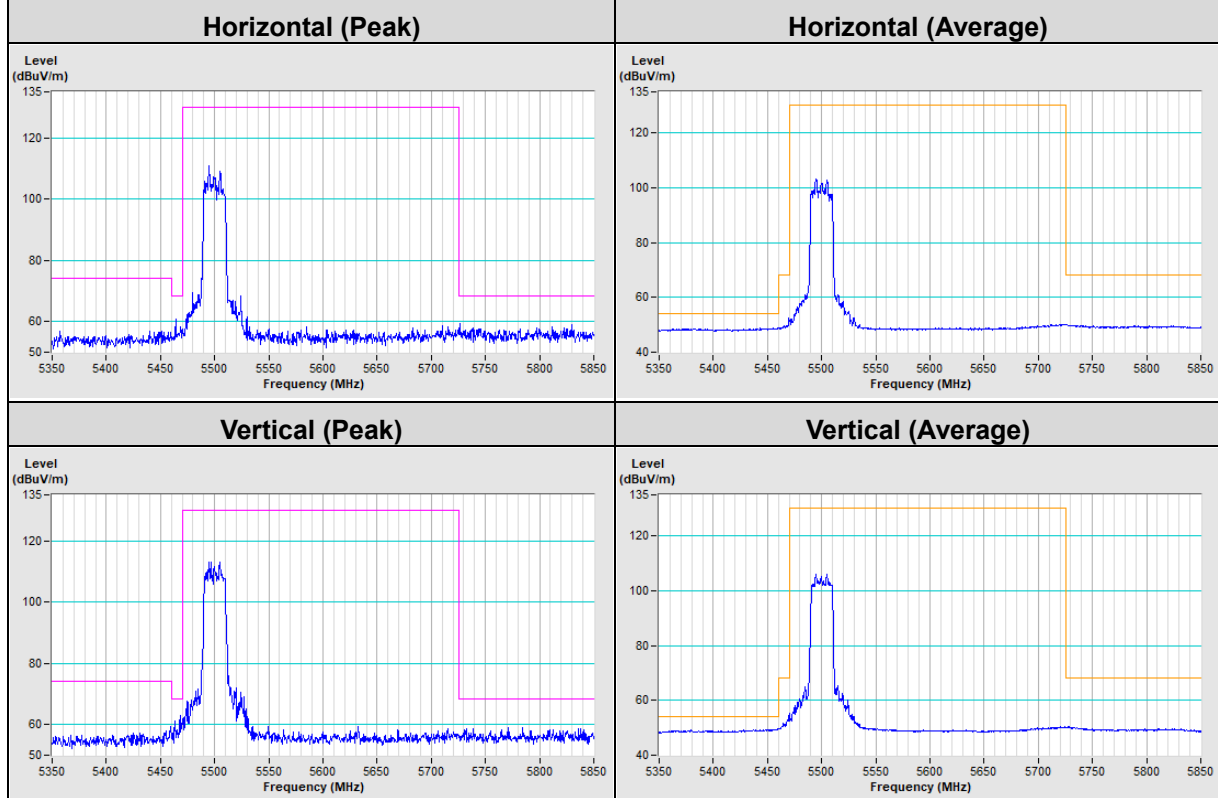




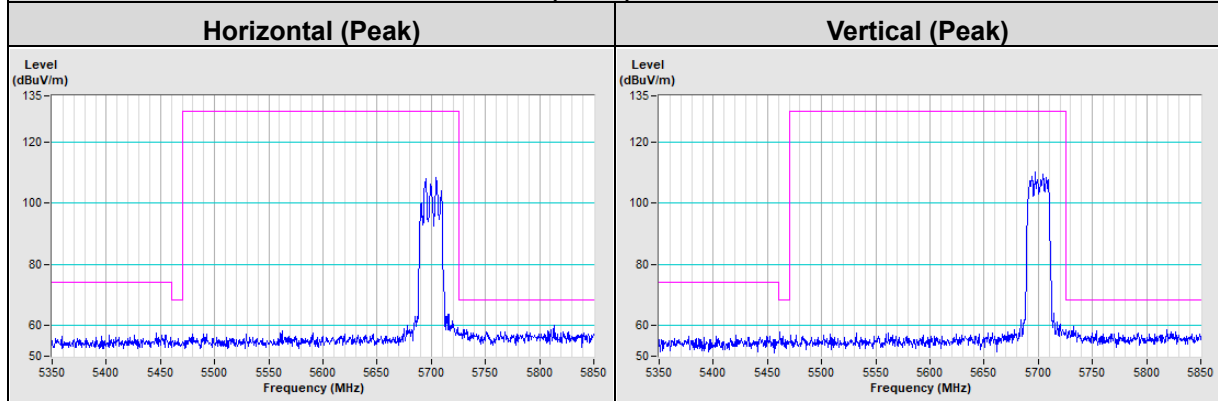




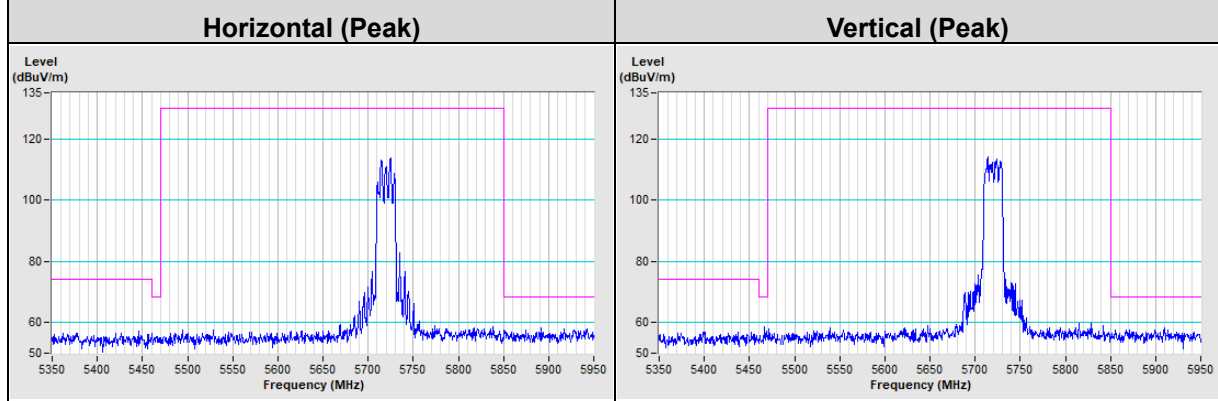
802.11ax (HE20) Channel 100

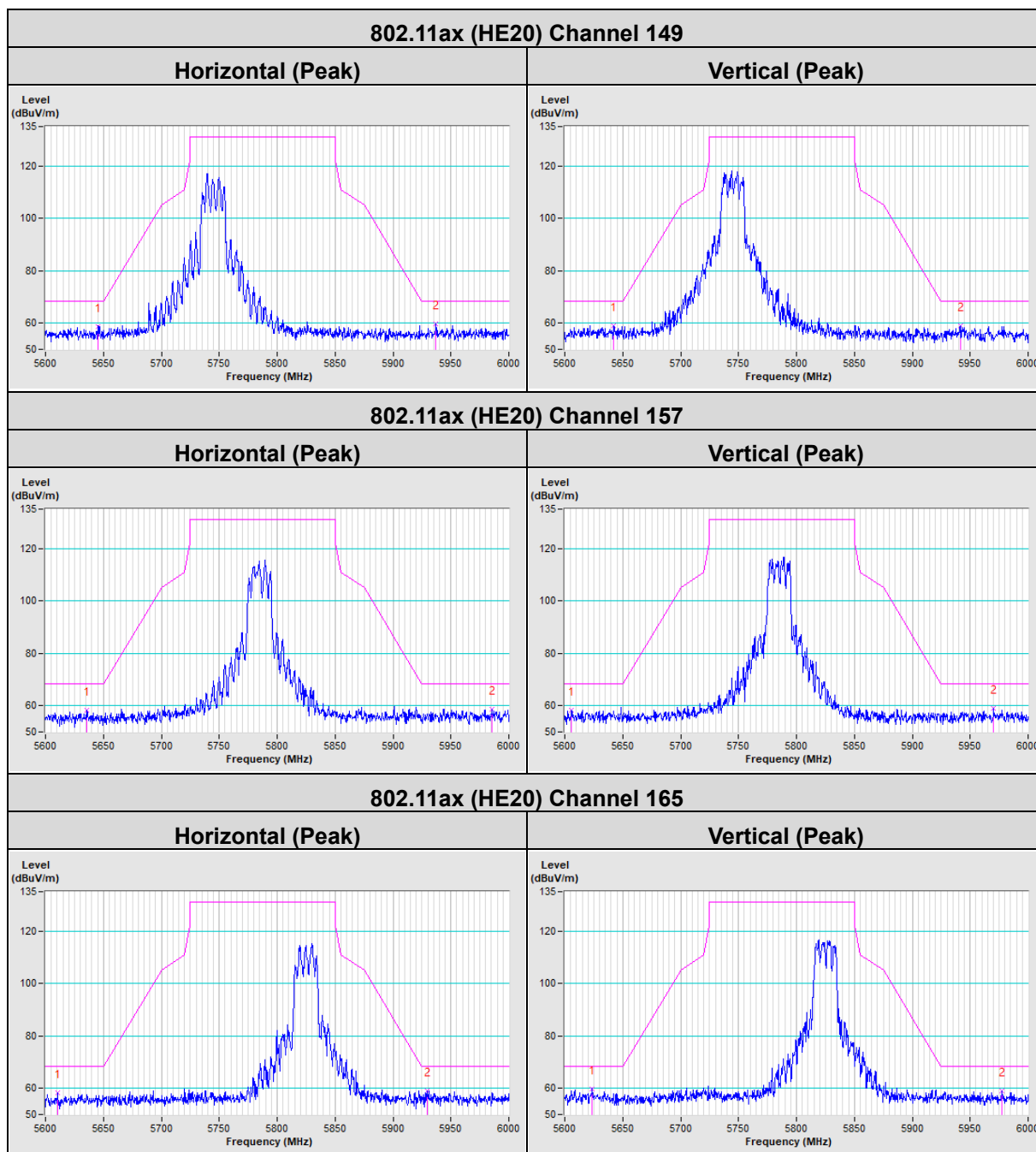


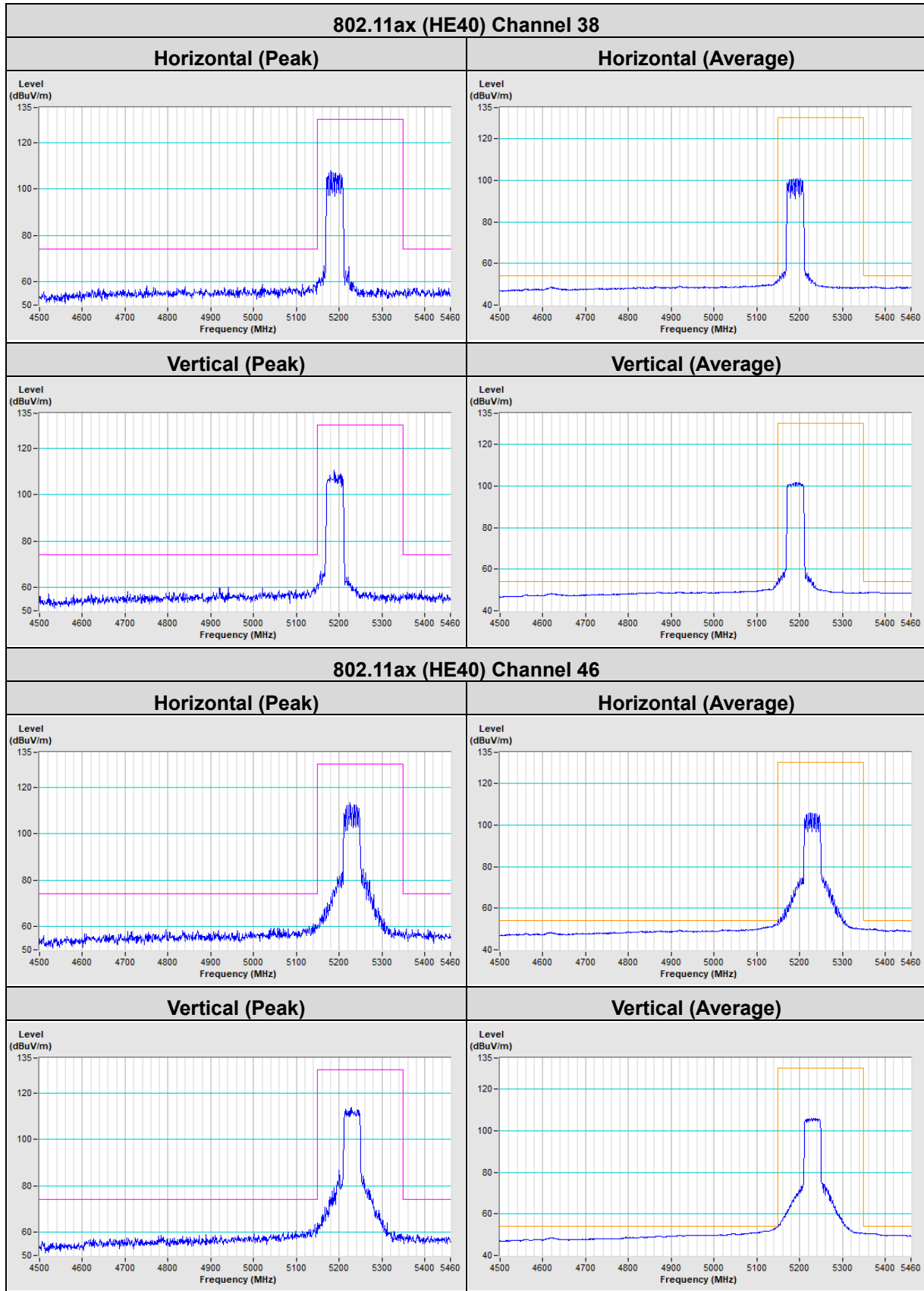
802.11ax (HE20) Channel 140

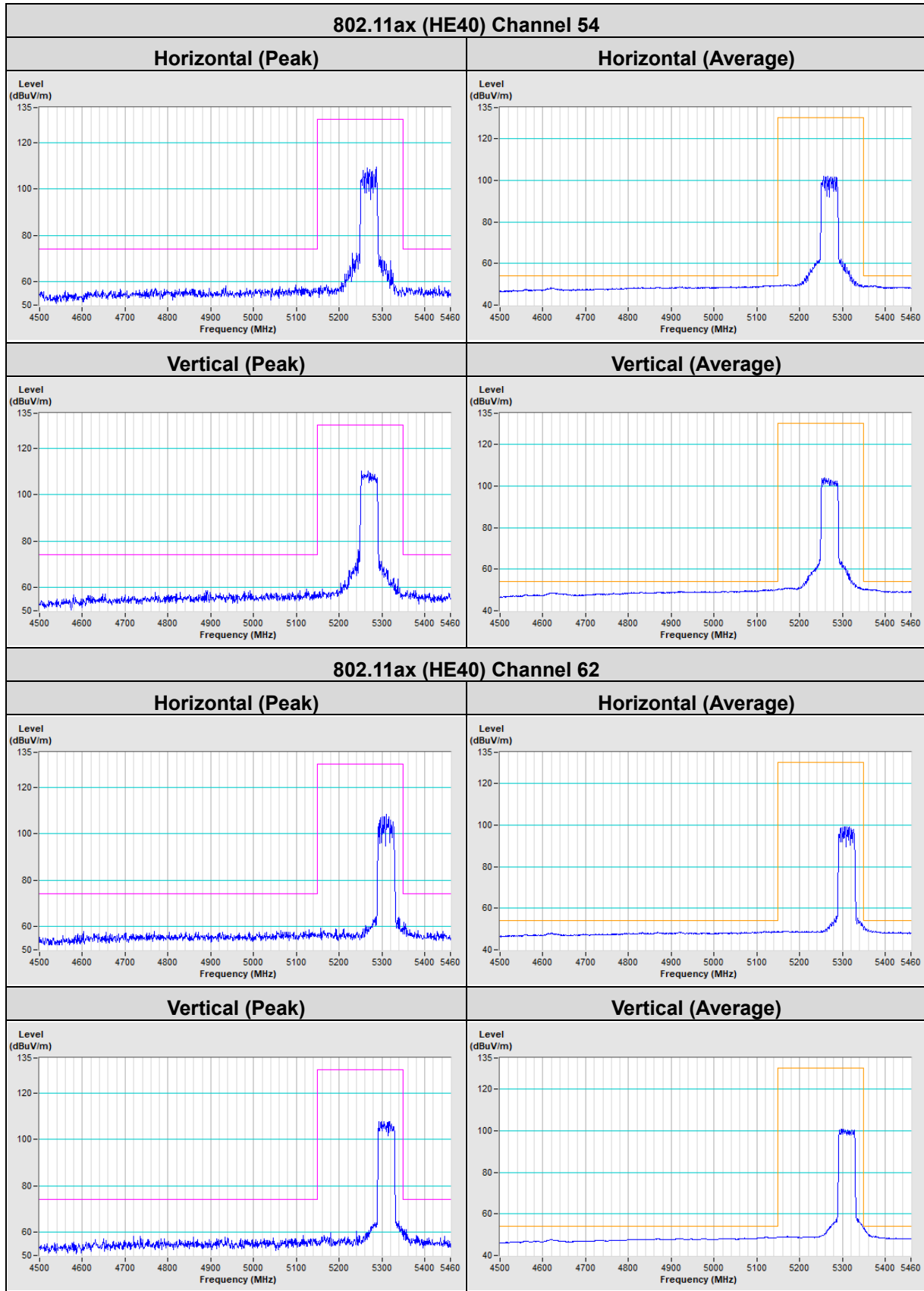


802.11ax (HE20) Channel 144

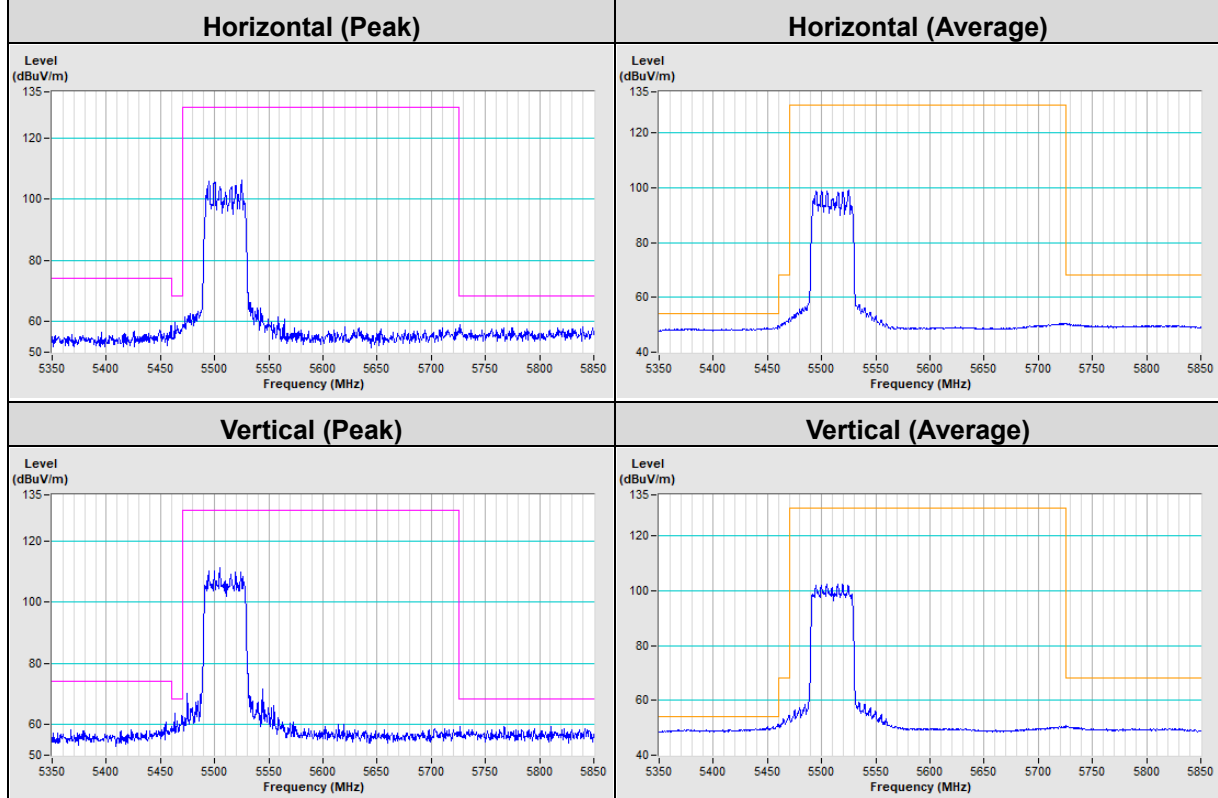




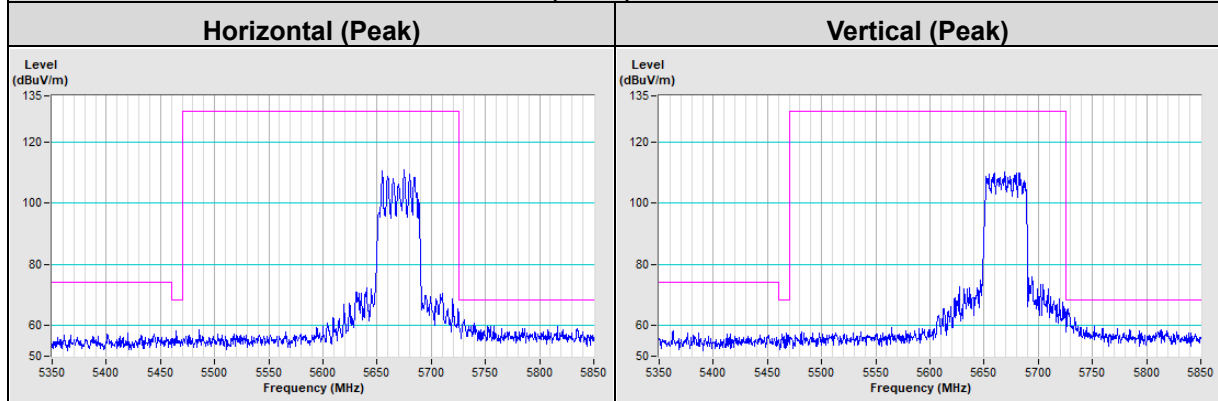




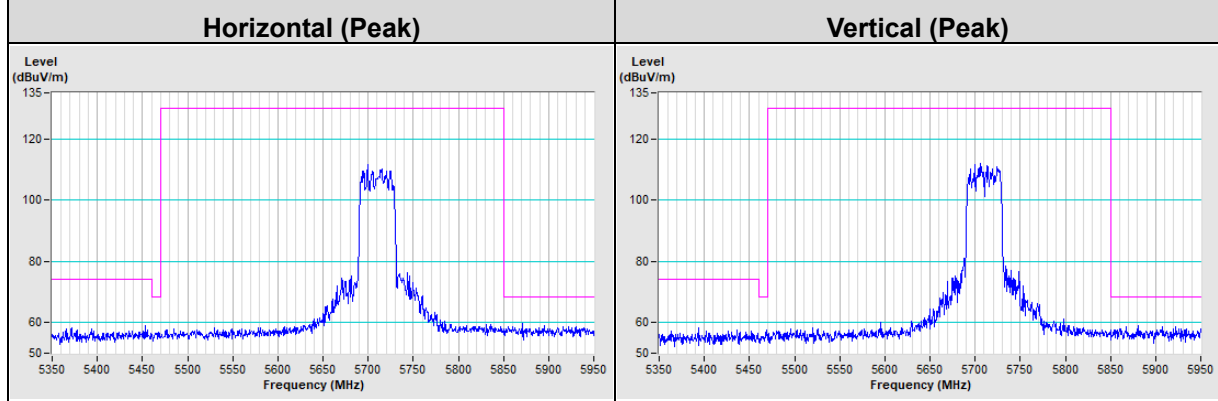
802.11ax (HE40) Channel 102



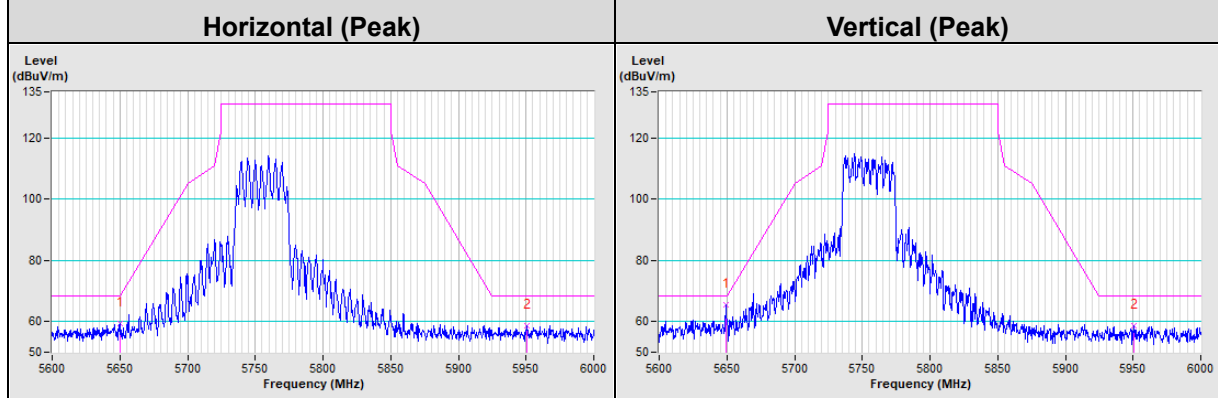
802.11ax (HE40) Channel 134



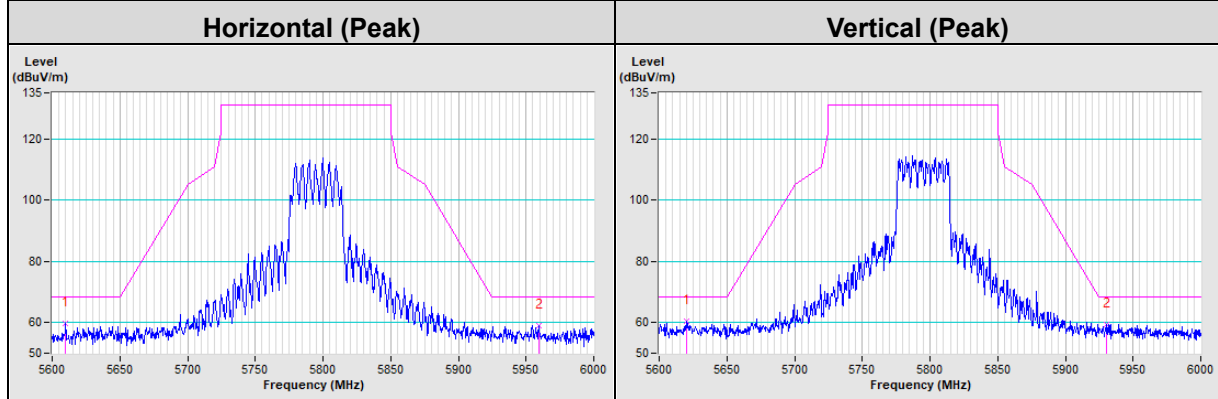
802.11ax (HE40) Channel 142

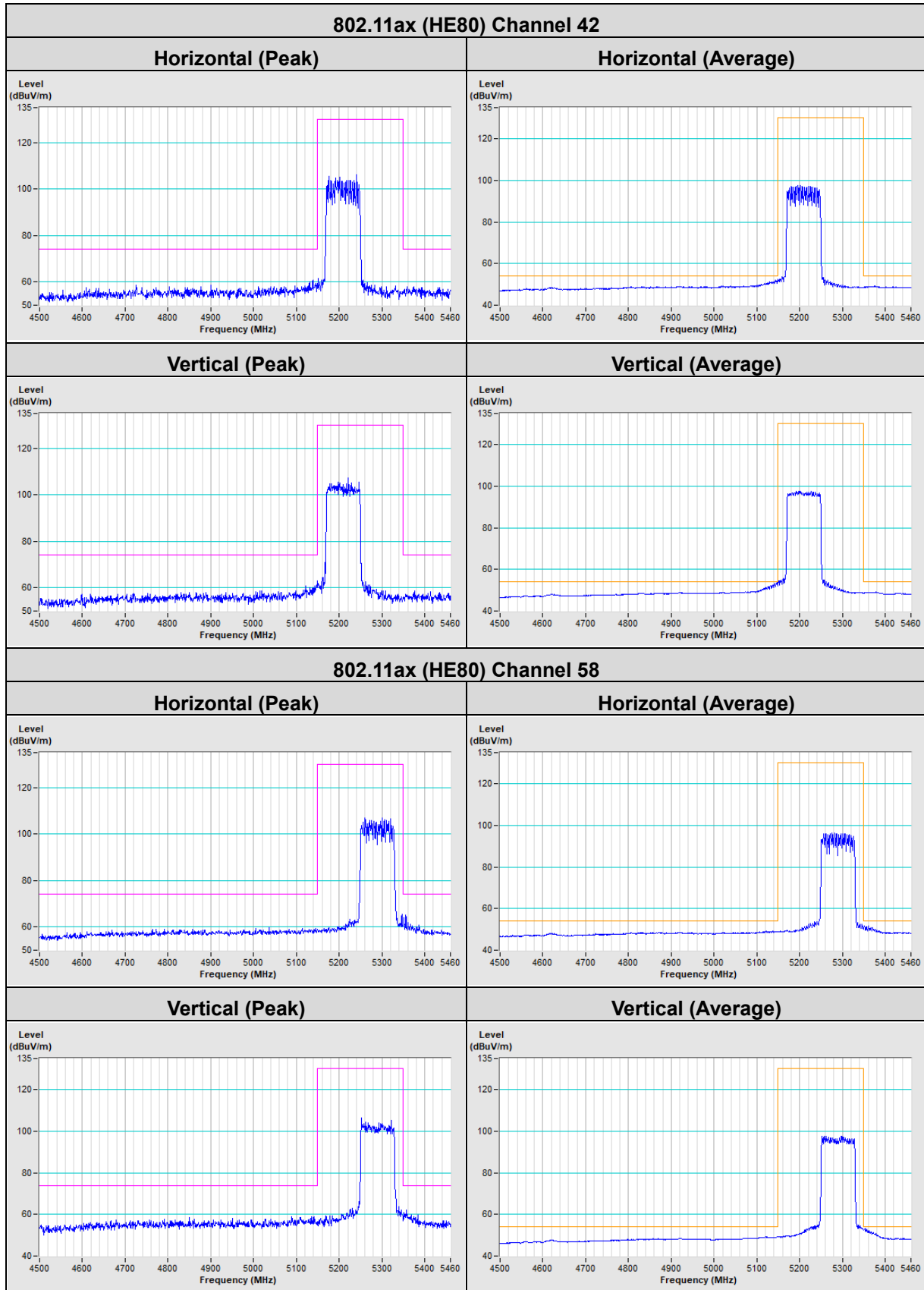


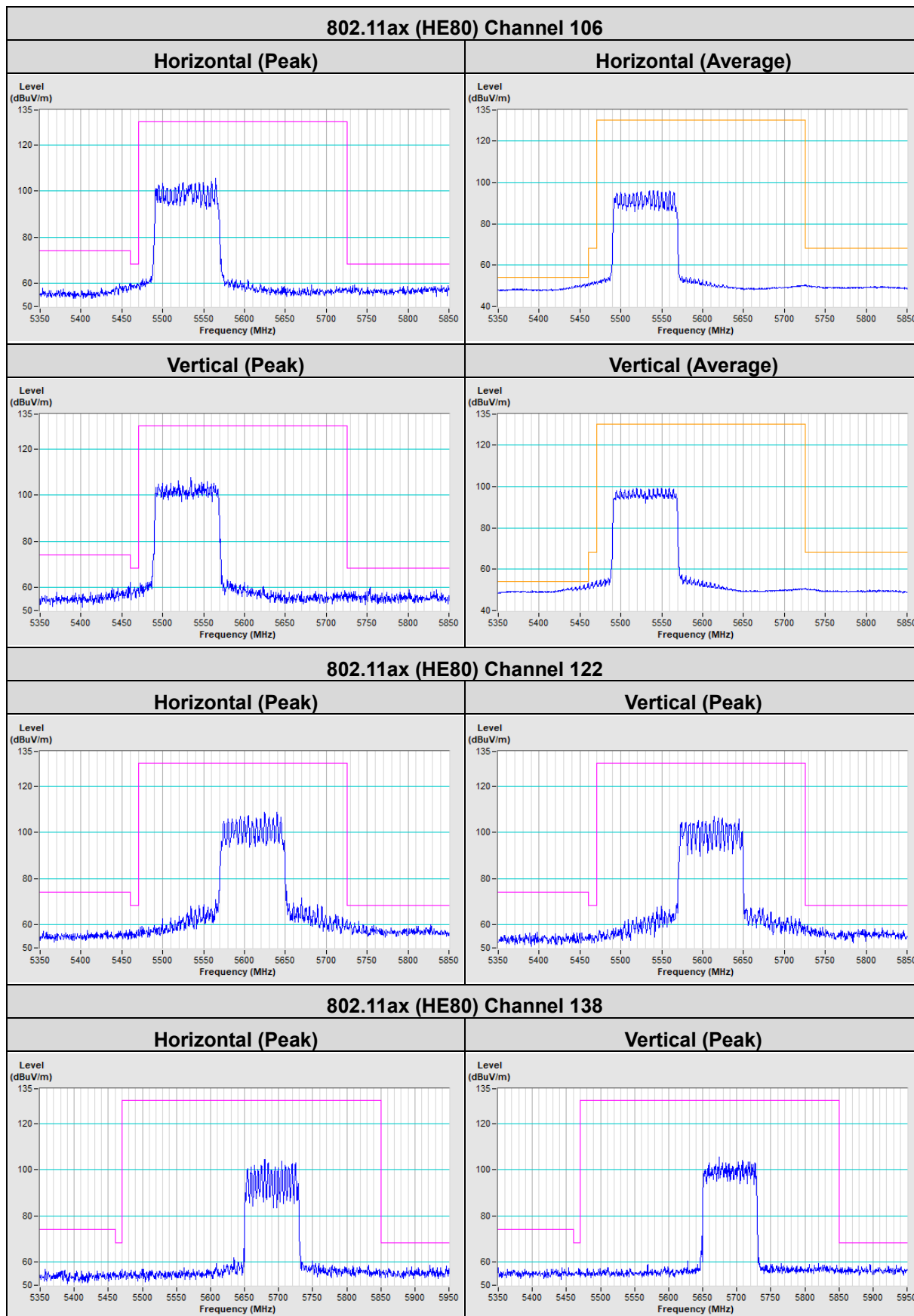
802.11ax (HE40) Channel 151

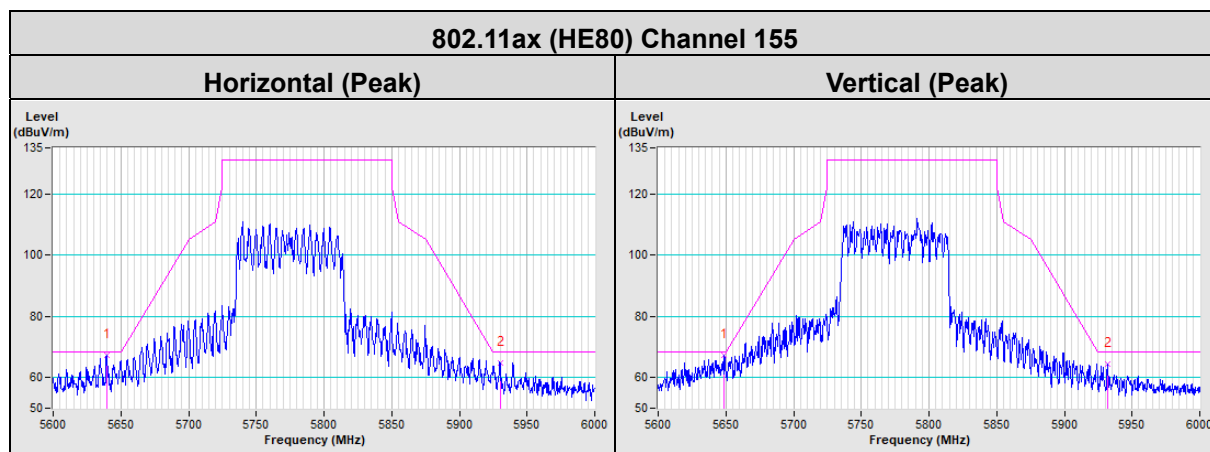


802.11ax (HE40) Channel 159

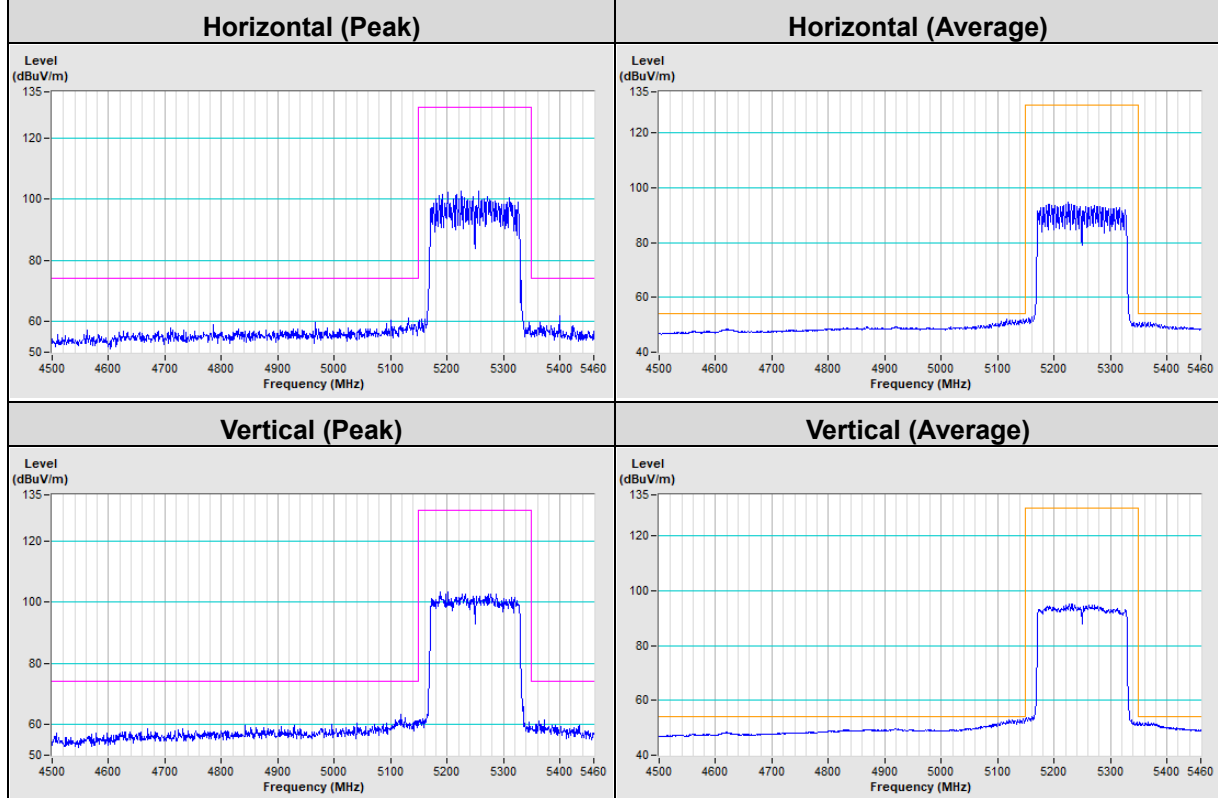




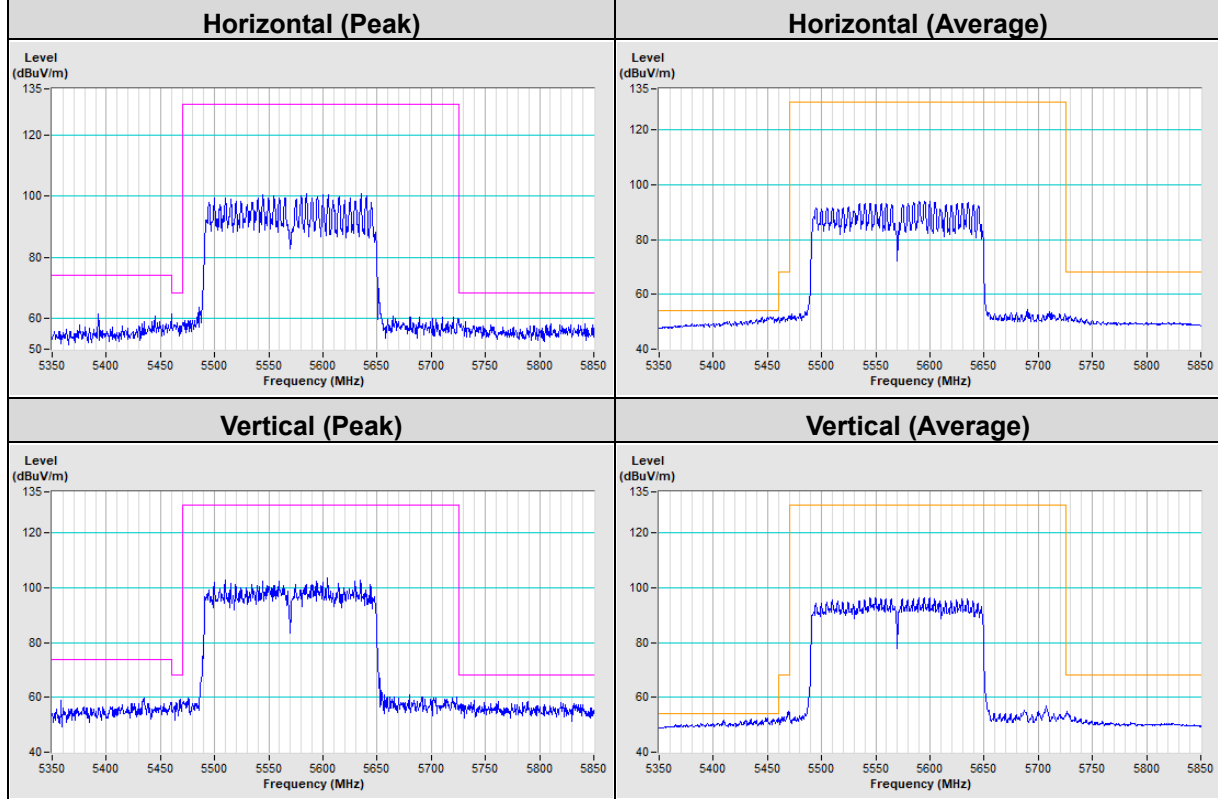




802.11ax (HE160) Channel 50



802.11ax (HE160) Channel 114



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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Fax: 886-2-26051924

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Fax: 886-3-6668323

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Email: service.adt@bureauveritas.com

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

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

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