

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBCUG-WTW-P22010682D-3

FCC ID: B32UX7002W

Product: Point of Sale Terminal

Brand: Verifone

Model No.: UX700-ML-2

Received Date: 2022/12/16

Test Date: 2023/3/3 ~ 2023/3/31

Issued Date: 2023/4/18

Applicant: Verifone, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 788550 / TW0003

Designation Number:

Approved by: _____

Jeremy Lin

, Date: _____

2023/4/18

Jeremy Lin / Project Engineer

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Prepared by : Gina Liu / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBCUG-WTW-P22010682D-3	Original release.	2023/4/18

1 Certificate

Product: Point of Sale Terminal
Brand: Verifone
Test Model: UX700-ML-2
Sample Status: Engineering sample
Applicant: Verifone, Inc.
Test Date: 2023/3/3 ~ 2023/3/31
Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure: ANSI C63.10-2013
KDB 789033 D02 General UNII Test Procedure New Rules v02r01

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) 15.407(a)(2) 15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1) 15.407(a)(2) 15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	-	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -15.96 dB at 0.39655 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.0 dB at 651.77 MHz
15.407(b) (1/10) 15.407(b) (2/10) 15.407(b) (3/10) 15.407(b) (4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -1.90 dB at 5350.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.79 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 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	Point of Sale Terminal
Brand	Verifone
Test Model	UX700-ML-2
Status of EUT	Engineering sample
Power Supply Rating	9-43Vdc, 2.4A-0.5A
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 150Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	5.18 GHz ~ 5.24 GHz 5.26 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	5180 ~ 5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 12 802.11n (HT40), 802.11ac (VHT40): 6 802.11ac (VHT80): 3 5745 ~ 5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5.18 GHz ~ 5.24 GHz : 32.734 mW (15.15 dBm) 5.26 GHz ~ 5.32 GHz : 39.811 mW (16 dBm) 5.5 GHz ~ 5.72 GHz : 34.674 mW (15.4 dBm) 5.745 GHz ~ 5.825 GHz : 21.478 mW (13.32 dBm)
EUT Category	Client device

Note:

1. The accessory devices of EUT, please refer to external photo.
2. 2.4GHz & BT or 5GHz & BT technology can transmit at same time.
3. Spurious emission of the simultaneous operation (2.4GHz & BT or 5GHz & BT) has been evaluated and no non-compliance was found.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	Gain (dBi)	Antenna Type	Connector Type
	5150 ~ 5850 MHz		
1	3.60	Dipole	ipex(MHF)

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

2. The EUT incorporates a SISO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	1TX	1RX
802.11n (HT20)	1TX	1RX
802.11n (HT40)	1TX	1RX
802.11ac (VHT20)	1TX	1RX
802.11ac (VHT40)	1TX	1RX
802.11ac (VHT80)	1TX	1RX

Note:

- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz), therefore the 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) and 802.11ac (VHT20):

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) and 802.11ac (VHT40):

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

FOR 5500 ~ 5700 MHz

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

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) and 802.11ac (VHT40):

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):

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

FOR 5745 ~ 5825 MHz:

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

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) and 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channels are provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition: X-axis

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

Test Item	EUT Configure Mode	Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	B	802.11a	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11n (HT20)	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11n (HT40)	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ac (VHT80)	58, 106, 122, 138	BPSK	MCS0
RF Output Power	B	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11n (HT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
6 dB Bandwidth	B	802.11a	144, 149, 157, 165	BPSK	6Mb/s
		802.11n (HT20)	144, 149, 157, 165	BPSK	MCS0
		802.11n (HT40)	142, 151, 159	BPSK	MCS0
		802.11ac (VHT80)	138, 155	BPSK	MCS0
Occupied Bandwidth / Power Spectral Density	B	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11n (HT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
Frequency Stability	B	802.11a	36	un-modulation	-
AC Power Conducted Emissions	A,B	802.11n (HT20)	60	BPSK	MCS0
Unwanted Emissions below 1 GHz	A,B	802.11n (HT20)	60	BPSK	MCS0

Test Item	EUT Configure Mode	Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions above 1 GHz	B	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
		802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
		802.11n (HT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
		802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
EUT Configure Mode:	A	Model: 2AAJ012F (Adapter)			
	B	Model: 2ABL018F (Adapter)			

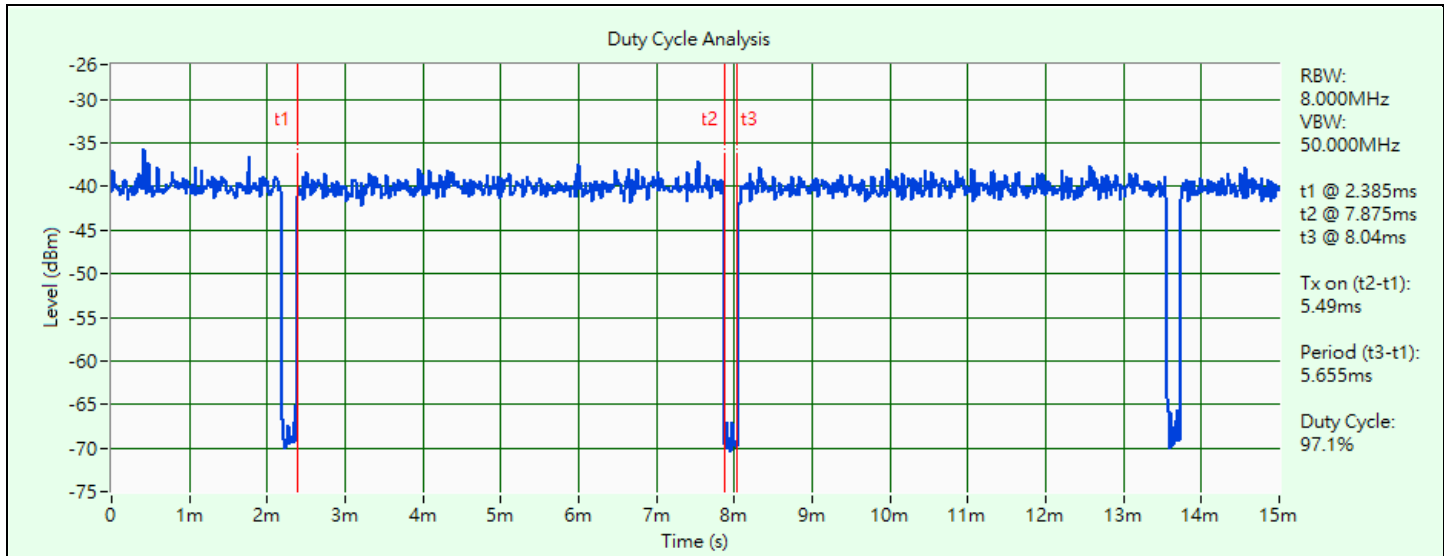
3.5 Duty Cycle of Test Signal

802.11a: Duty cycle = 5.49 ms / 5.655 ms x 100% = 97.1%, duty factor = 10 * log (1/Duty cycle) = 0.13 dB

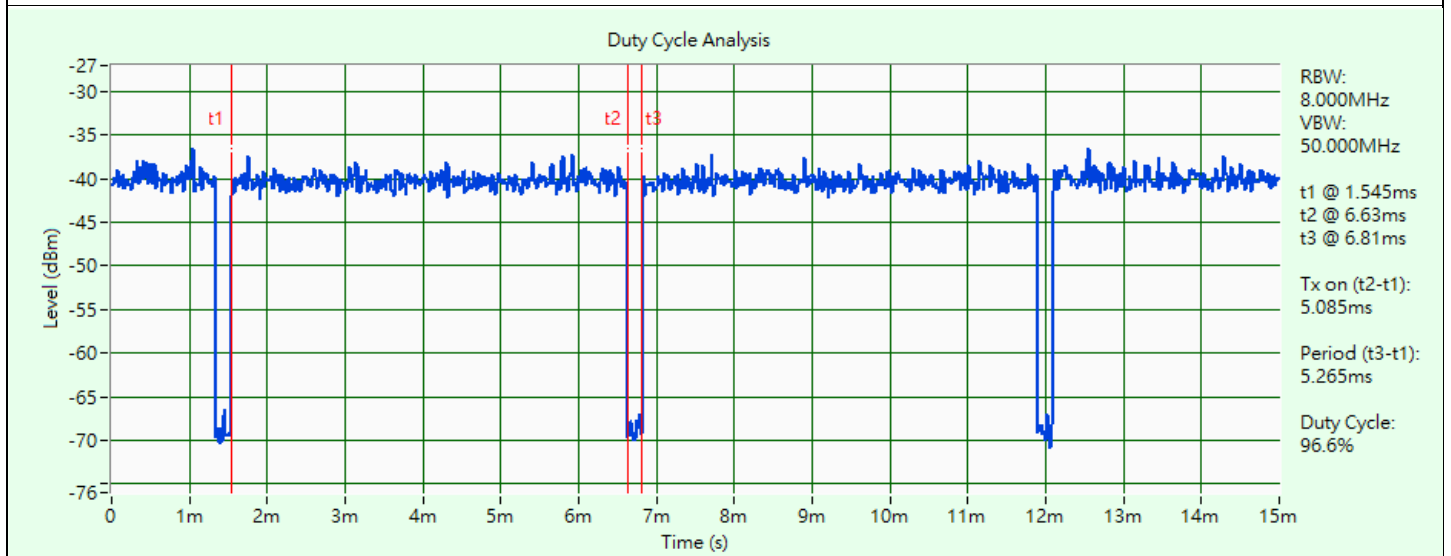
802.11n (HT20): Duty cycle = 5.085 ms / 5.265 ms x 100% = 96.6%, duty factor = 10 * log (1/Duty cycle) = 0.15 dB

802.11n (HT40): Duty cycle = 5.085 ms / 5.25 ms x 100% = 96.9%, duty factor = 10 * log (1/Duty cycle) = 0.14 dB

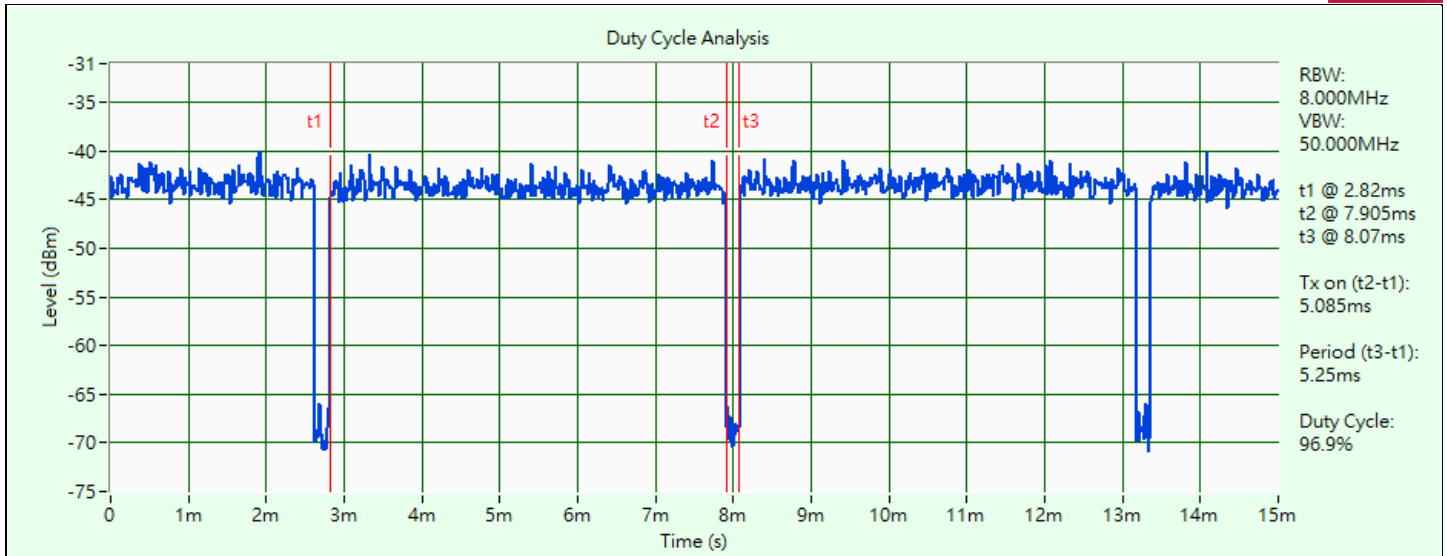
802.11ac (VHT80): Duty cycle = 0.98 ms / 1.17 ms x 100% = 83.8%, duty factor = 10 * log (1/Duty cycle) = 0.77 dB



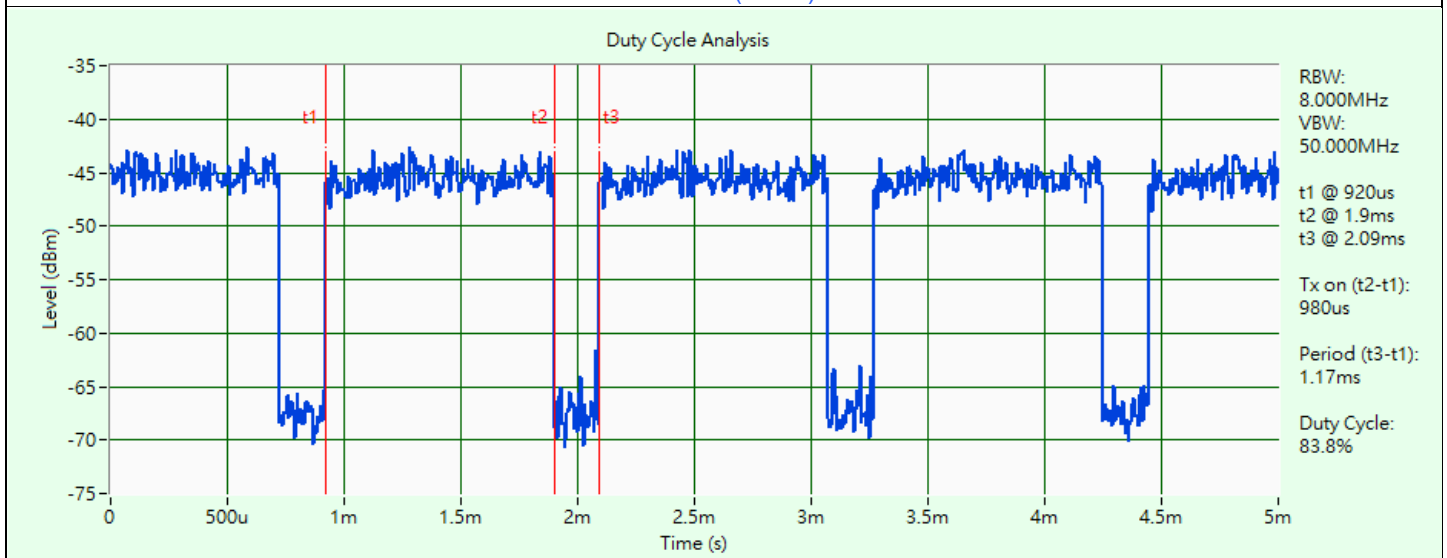
802.11a



802.11n (HT20)



802.11n (HT40)

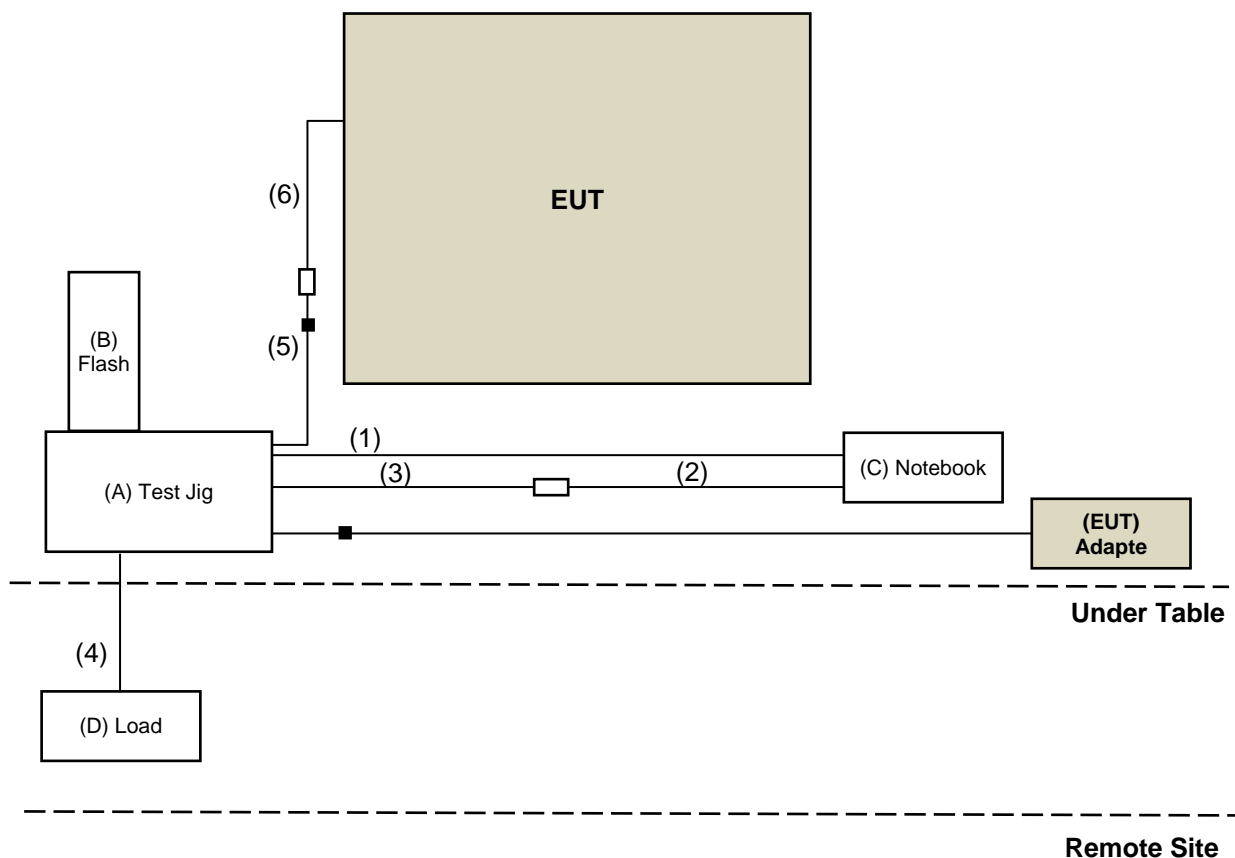


802.11ac (VHT80)

3.6 Test Program Used and Operation Descriptions

Controlling software QRCT 3 Version 3.0.264.0 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	Test Jig	NA	NA	NA	NA	Provided by manufacturer
B	Flash	SanDisk	SDDDC3-032G	NA	NA	Provided by Lab
C	Notebook	Lenovo	20J4 MD A003TW	PF-11H9AK	NA	Provided by Lab
D	Load	NA	NA	NA	NA	-

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	1.0	Y	0	Supplied by applicant
2	RS232 to A Cable	1	1.0	N	0	Provided by Lab
3	LAN to RS232 Cable	1	1.0	N	0	Supplied by applicant
4	LAN Cable	1	1.5	N	0	RJ45, Cat5e
5	USB Cable	1	1.5	Y	1	Supplied by applicant
6	USB Cable	1	0.3	Y	0	Supplied by applicant

4 Test Instruments

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

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100980	2022/4/20	2023/4/19

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/3/28

4.2 RF Output Power

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	100980	2022/4/20	2023/4/19
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004/MY55190007/MY55210005	2022/7/13	2023/7/12

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/3/28

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 supply JIN YIH Technology	6905S	1720444	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	100980	2022/4/20	2023/4/19
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2022/12/27	2023/12/26

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/3/28

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	2022/11/9	2023/11/8
LISN R&S	ESH2-Z5	100100	2023/3/7	2024/3/6
	ESH3-Z5	100116	2023/2/15	2024/2/14
LISN Schwarzbeck	NNLK 8121	8121-731	2022/5/26	2023/5/25
RF Coaxial Cable WORKEN	5D-FB	Cable-cond2-01	2022/9/3	2023/9/2
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver R&S	ESR3	102783	2022/12/21	2023/12/20
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2023/3/3 ~ 2023/3/30

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi-log Broadband Antenna Schwarzbeck	VULB9168	9168-1214	2022/10/20	2023/10/19
Loop Antenna EMCI	EM-6879	269	2022/9/19	2023/9/18
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
MXA Signal Analyzer KEYSIGHT	N9020B	MY60110513	2022/12/26	2023/12/25
MXE EMI Receiver KEYSIGHT	N9038B	MY60180018	2023/2/7	2024/2/6
Pre-amplifier EMCI	EMC001340	980201	2022/9/23	2023/9/22
Pre_Amplifier EMCI	EMC330N	980798	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/1/7	2024/1/6
	EMCCFD400-NM-NM- 500	201248	2023/1/16	2024/1/15
	EMCCFD400-NM-NM- 3000	201249	2023/1/16	2024/1/15
	EMCCFD400-NM-NM- 9000	201251(with PAD)	2023/1/16	2024/1/15
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2023/3/23 ~ 2023/3/31

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Horn Antenna RFSPIN	DRH18-E	210104A18E	2022/11/13	2023/11/12
Horn Antenna Schwarzbeck	BBHA 9170	9170-1048	2022/11/13	2023/11/12
MXA Signal Analyzer KEYSIGHT	N9020B	MY60110513	2022/12/26	2023/12/25
MXE EMI Receiver KEYSIGHT	N9038B	MY60180018	2023/2/7	2024/2/6
Pre-Amplifier EMCI	EMC 012645	980115	2022/10/1	2023/9/30
Pre_Amplifier EMCI	EMC184045SE	980786	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201253	2023/1/16	2024/1/15
	EMC101G-KM-KM-3000	201258	2023/1/16	2024/1/15
	EMC101G-KM-KM-5000	201261	2023/1/16	2024/1/15
	EMC104-SM-SM-1000	210103	2023/1/16	2024/1/15
	EMC104-SM-SM-3000	201232	2023/1/16	2024/1/15
	EMC104-SM-SM-9000	201244	2023/1/16	2024/1/15
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2023/3/17 ~ 2023/3/31

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

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

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

*B is the 26 dB emission bandwidth in megahertz

5.3 Power Spectral Density

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

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

5.4 6 dB Bandwidth

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

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

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

5.7 AC Power Conducted Emissions

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

Notes:

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

5.8 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.9 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

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

For transmitters operating in the 5.15-5.25 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)

For transmitters operating in the 5.25-5.35 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)

For transmitters operating in the 5.47-5.725 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(3)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)

For transmitters operating in the 5.725-5.850 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1}	PK: 68.2 (dBµV/m) ^{*1}
	PK: 10 (dBm/MHz) ^{*2}	PK: 105.2 (dBµV/m) ^{*2}
	PK: 15.6 (dBm/MHz) ^{*3}	PK: 110.8 (dBµV/m) ^{*3}
	PK: 27 (dBm/MHz) ^{*4}	PK: 122.2 (dBµV/m) ^{*4}

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

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

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

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

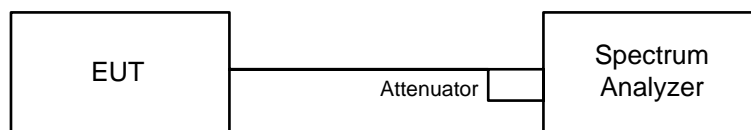
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

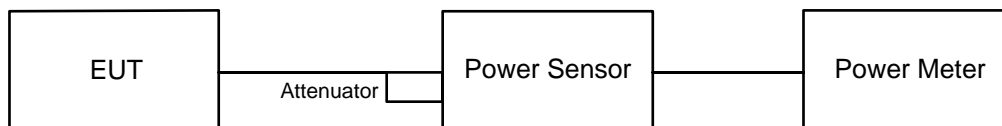


6.1.2 Test Procedure

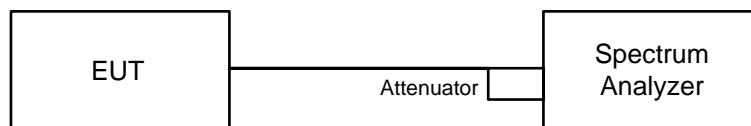
- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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

For channel straddling:

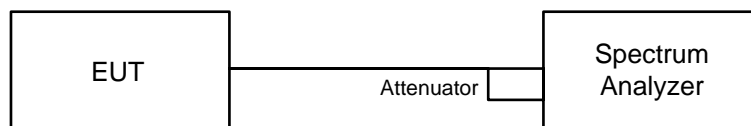
Method SA-2A

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

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-2

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
- c. Sweep points \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq RBW / 2, so that narrowband signals are not lost between frequency bins.)
- d. Sweep time = auto, trigger set to “free run”.
- e. Trace average at least 100 traces in power averaging mode.
- f. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- g. Record the max value and add 10 log (1/duty cycle).

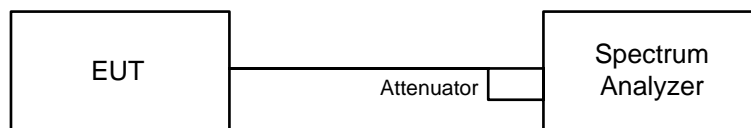
For specified measurement bandwidth 500 kHz:

Method SA-2

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW \geq 1 MHz, Detector = RMS
- c. 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 $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- d. Sweep points \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq RBW / 2, so that narrowband signals are not lost between frequency bins.)
- e. Sweep time = auto, trigger set to “free run”.
- f. Trace average at least 100 traces in power averaging mode.
- g. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- h. Record the max value and add 10 log (1/duty cycle).

6.4 6 dB Bandwidth

6.4.1 Test Setup

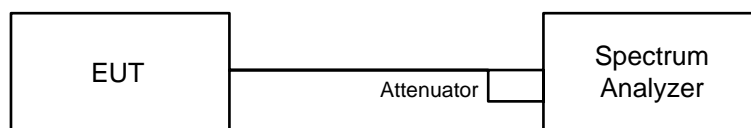


6.4.2 Test Procedure

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

6.5 Occupied Bandwidth

6.5.1 Test Setup

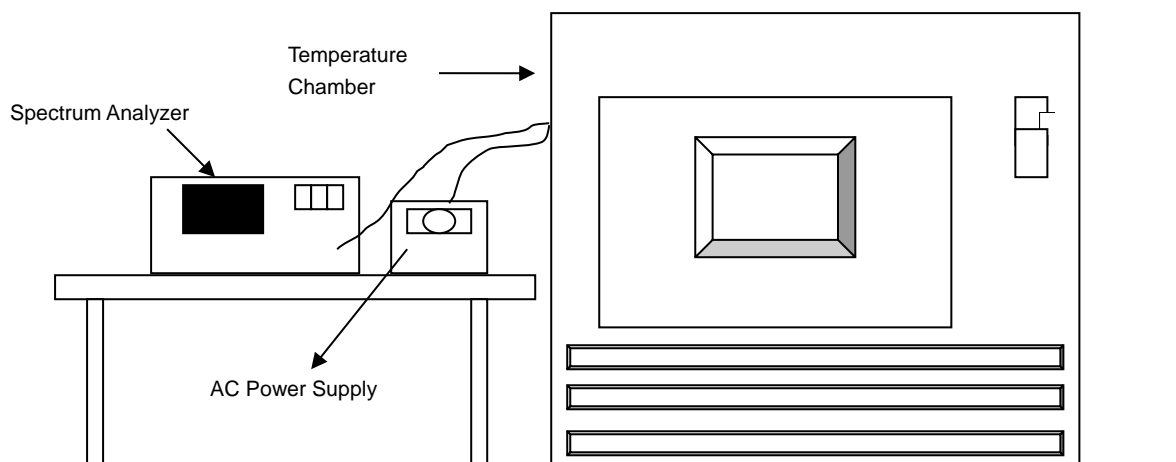


6.5.2 Test Procedure

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

6.6 Frequency Stability

6.6.1 Test Setup

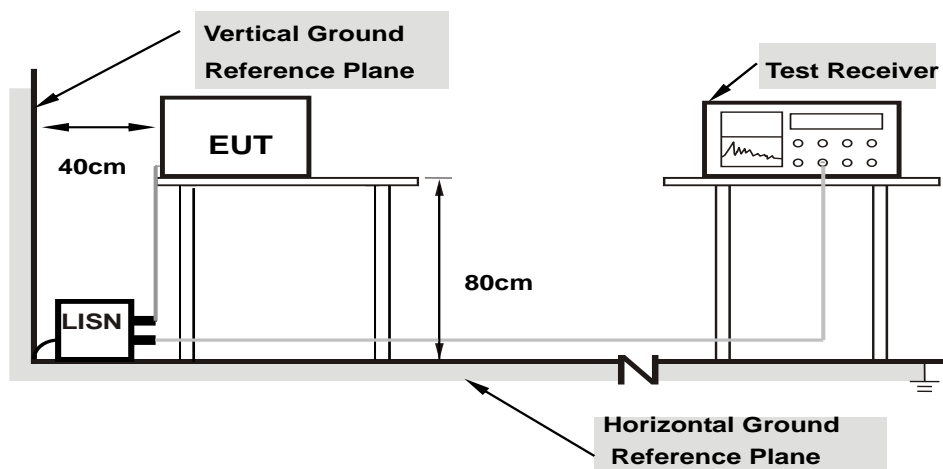


6.6.2 Test Procedure

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

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



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

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

6.7.2 Test Procedure

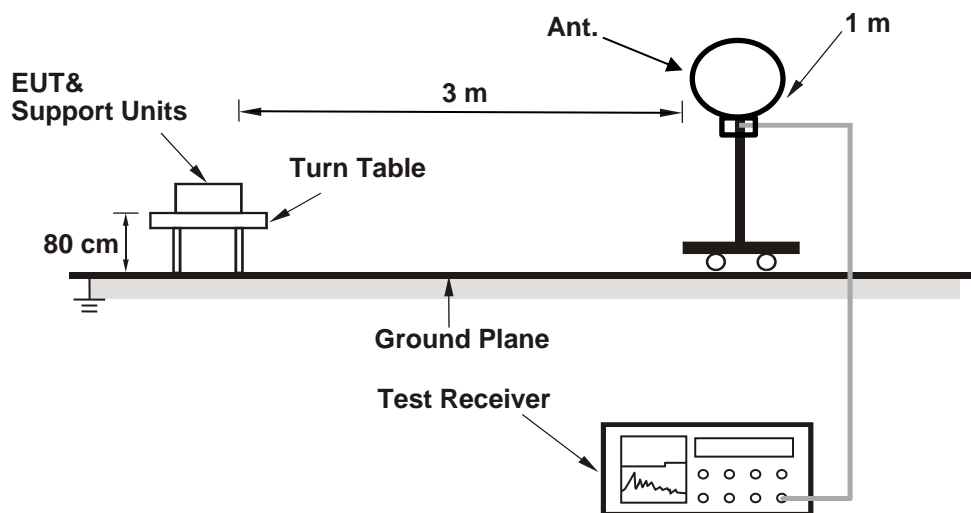
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

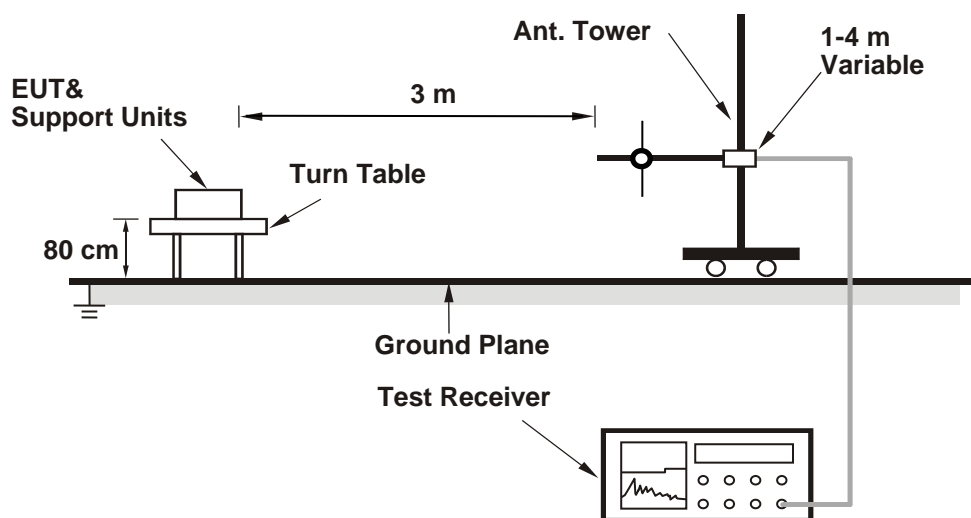
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.8.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

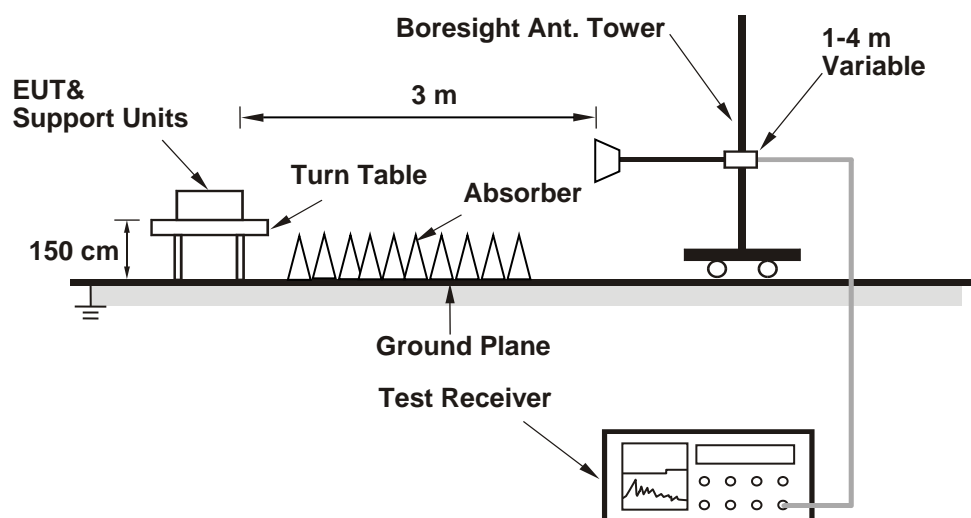
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup



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

6.9.2 Test Procedure

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

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 26 dB Bandwidth

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

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	27.64
60	5300	26.83
64	5320	25.78
100	5500	24.53
116	5580	24.53
140	5700	23.95
144 (U-NII-2C)	5720	18.71
144 (U-NII-3)	5720	7.05

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	27.64	25.41 > 24
60	5300	26.83	25.28 > 24
64	5320	25.78	25.11 > 24
100	5500	24.53	24.89 > 24
116	5580	24.53	24.89 > 24
140	5700	23.95	24.79 > 24
144 (U-NII-2C)	5720	18.71	23.72 < 24

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

802.11n (HT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	28.28
60	5300	42.45
64	5320	29.92
100	5500	38.86
116	5580	29.08
140	5700	28.44
144 (U-NII-2C)	5720	20.47
144 (U-NII-3)	5720	7.44

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	28.28	25.51 > 24
60	5300	42.45	27.27 > 24
64	5320	29.92	25.75 > 24
100	5500	38.86	26.89 > 24
116	5580	29.08	25.63 > 24
140	5700	28.44	25.53 > 24
144 (U-NII-2C)	5720	20.47	24.11 > 24

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

802.11n (HT40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
54	5270	50.47
62	5310	56.89
102	5510	49.47
110	5550	46.11
134	5670	46.61
142 (U-NII-2C)	5710	45.49
142 (U-NII-3)	5710	9.8

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	50.47	28.03 > 24
62	5310	56.89	28.55 > 24
102	5510	49.47	27.94 > 24
110	5550	46.11	27.63 > 24
134	5670	46.61	27.68 > 24
142 (U-NII-2C)	5710	45.49	27.57 > 24

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

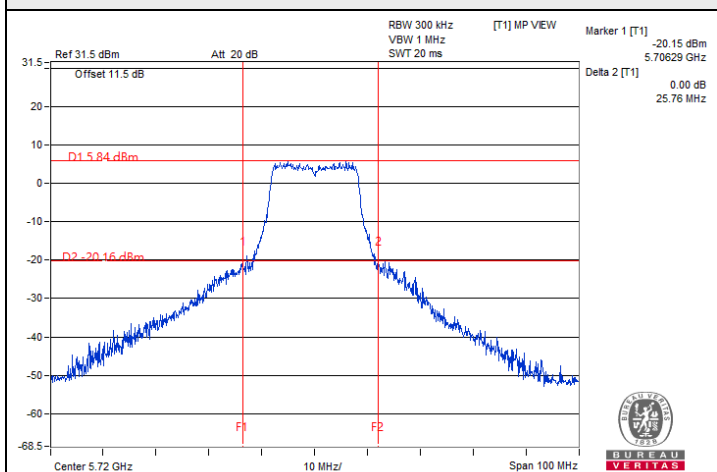
802.11ac (VHT80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
58	5290	85.11
106	5530	85.06
122	5610	84.97
138 (U-NII-2C)	5690	77.32
138 (U-NII-3)	5690	6.84

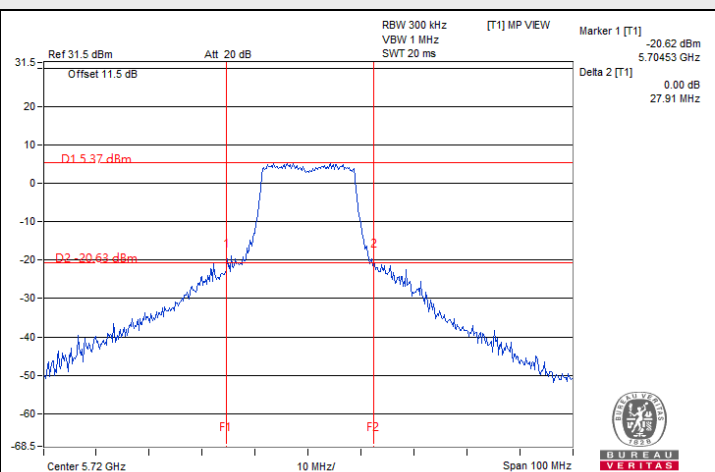
Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	85.11	30.29 > 24
106	5530	85.06	30.29 > 24
122	5610	84.97	30.29 > 24
138 (U-NII-2C)	5690	77.32	29.88 > 24

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

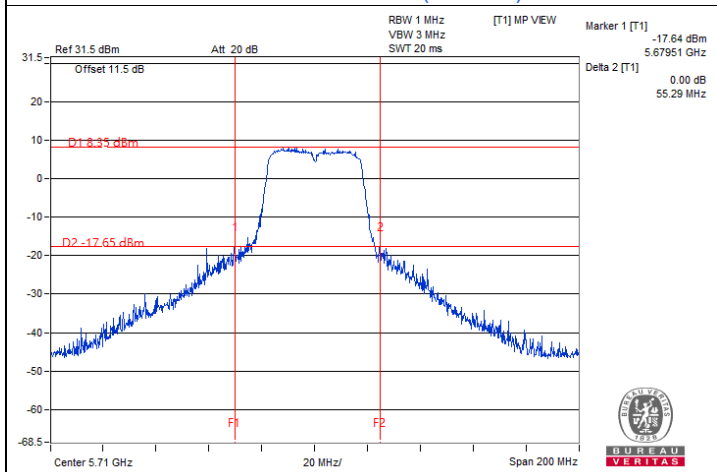
Spectrum Plot of Minimum Value



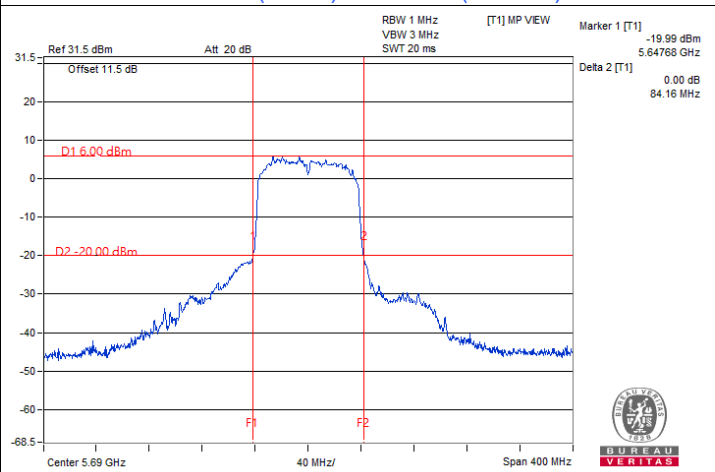
802.11a : CH 144 (U-NII-3)



802.11n (HT20) : CH 144 (U-NII-3)



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



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

Notes:

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

7.2 RF Output Power

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

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	32.734	15.15	24	Pass
40	5200	32.434	15.11	24	Pass
48	5240	31.915	15.04	24	Pass
52	5260	32.885	15.17	24	Pass
60	5300	38.371	15.84	24	Pass
64	5320	32.285	15.09	24	Pass
100	5500	33.806	15.29	24	Pass
116	5580	28.119	14.49	24	Pass
140	5700	15.066	11.78	24	Pass
*144 (U-NII-2C)	5720	17.253	12.37	23.72	Pass
*144 (U-NII-3)	5720	4.374	6.41	30	Pass
149	5745	21.232	13.27	30	Pass
157	5785	20.045	13.02	30	Pass
165	5825	18.75	12.73	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	32.509	15.12	24	Pass
40	5200	32.137	15.07	24	Pass
48	5240	32.434	15.11	24	Pass
52	5260	32.659	15.14	24	Pass
60	5300	39.811	16.00	24	Pass
64	5320	27.606	14.41	24	Pass
100	5500	34.674	15.40	24	Pass
116	5580	28.51	14.55	24	Pass
140	5700	18.072	12.57	24	Pass
*144 (U-NII-2C)	5720	17.065	12.32	24	Pass
*144 (U-NII-3)	5720	4.799	6.81	30	Pass
149	5745	21.478	13.32	30	Pass
157	5785	20.184	13.05	30	Pass
165	5825	18.281	12.62	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
38	5190	23.659	13.74	24	Pass
46	5230	25.882	14.13	24	Pass
54	5270	26.977	14.31	24	Pass
62	5310	15.996	12.04	24	Pass
102	5510	13.062	11.16	24	Pass
110	5550	22.594	13.54	24	Pass
134	5670	17.539	12.44	24	Pass
*142 (U-NII-2C)	5710	16.515	12.18	24	Pass
*142 (U-NII-3)	5710	1.164	0.66	30	Pass
151	5755	16.406	12.15	30	Pass
159	5795	15.885	12.01	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	29.785	14.74	24	Pass
40	5200	28.973	14.62	24	Pass
48	5240	28.708	14.58	24	Pass
52	5260	28.907	14.61	24	Pass
60	5300	30.62	14.86	24	Pass
64	5320	25.942	14.14	24	Pass
100	5500	26.062	14.16	24	Pass
116	5580	25.882	14.13	24	Pass
140	5700	17.298	12.38	24	Pass
*144 (U-NII-2C)	5720	15.209	11.82	24	Pass
*144 (U-NII-3)	5720	4.277	6.31	30	Pass
149	5745	19.231	12.84	30	Pass
157	5785	18.197	12.60	30	Pass
165	5825	16.558	12.19	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
38	5190	23.121	13.64	24	Pass
46	5230	22.336	13.49	24	Pass
54	5270	23.496	13.71	24	Pass
62	5310	15.74	11.97	24	Pass
102	5510	12.735	11.05	24	Pass
110	5550	19.543	12.91	24	Pass
134	5670	16.596	12.20	24	Pass
*142 (U-NII-2C)	5710	14.252	11.54	24	Pass
*142 (U-NII-3)	5710	1.0043	0.02	30	Pass
151	5755	14.223	11.53	30	Pass
159	5795	13.709	11.37	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80)

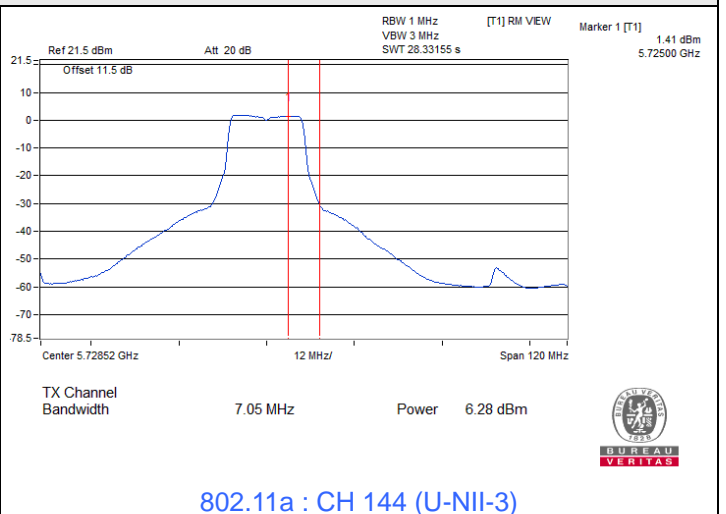
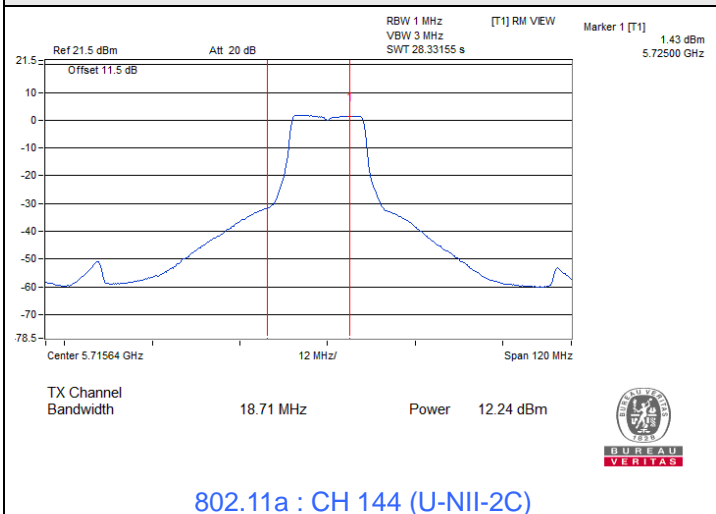
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
42	5210	22.439	13.51	24	Pass
58	5290	15.996	12.04	24	Pass
106	5530	9.162	9.62	24	Pass
122	5610	18.923	12.77	24	Pass
*138 (U-NII-2C)	5690	16.594	12.20	24	Pass
*138 (U-NII-3)	5690	0.2722	-5.65	30	Pass
155	5775	14.723	11.68	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
- For U-NII-1, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the output power limit shall not be reduced.

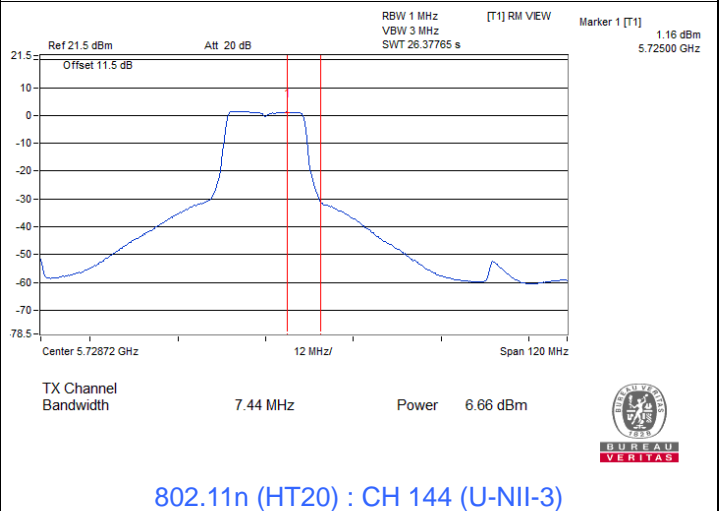
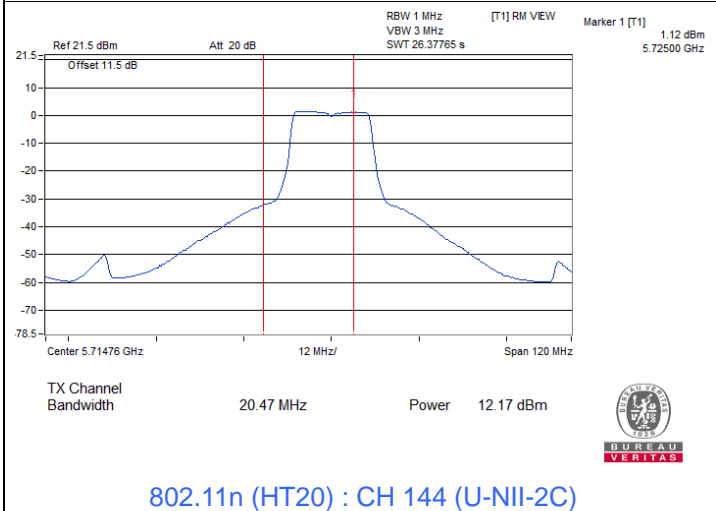


Spectrum Plot for channel straddling



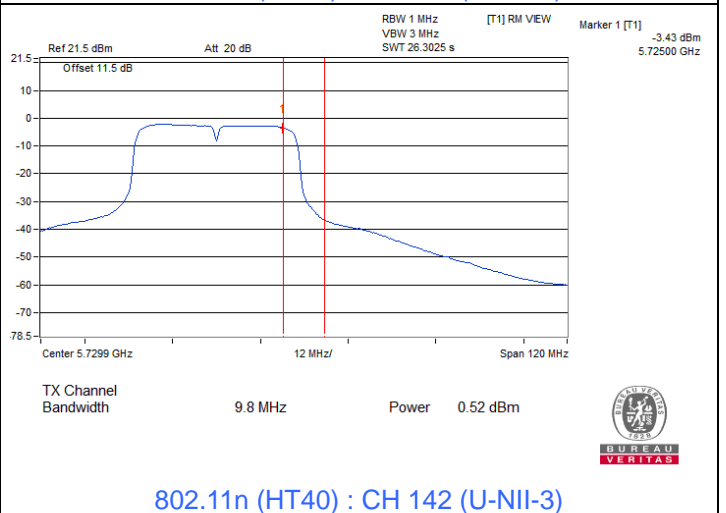
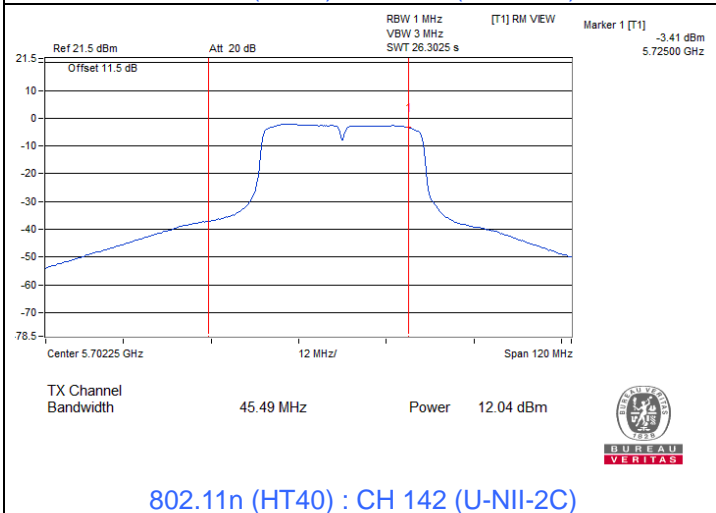
802.11a : CH 144 (U-NII-2C)

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



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

802.11n (HT20) : CH 144 (U-NII-3)

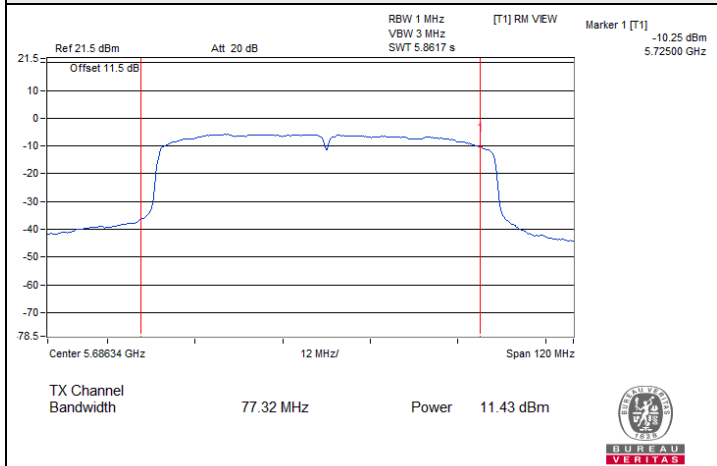


802.11n (HT40) : CH 142 (U-NII-2C)

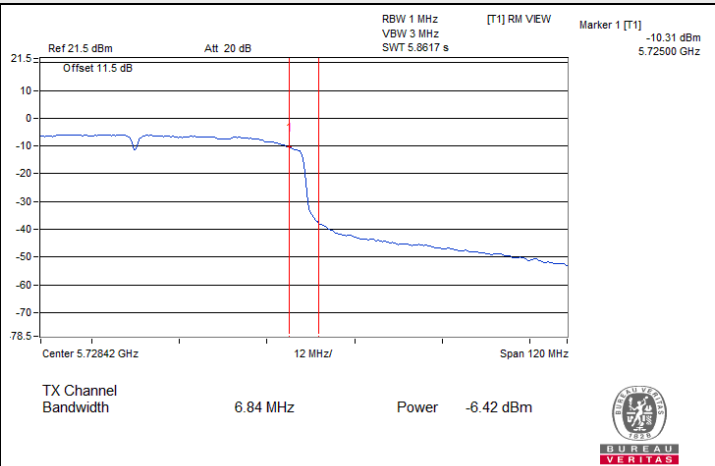
802.11n (HT40) : CH 142 (U-NII-3)



Spectrum Plot for channel straddling



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



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

7.3 Power Spectral Density

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

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	2.19	0.13	2.32	11	Pass
40	5200	2.00	0.13	2.13	11	Pass
48	5240	1.98	0.13	2.11	11	Pass
52	5260	2.14	0.13	2.27	11	Pass
60	5300	2.69	0.13	2.82	11	Pass
64	5320	2.05	0.13	2.18	11	Pass
100	5500	2.02	0.13	2.15	11	Pass
116	5580	1.56	0.13	1.69	11	Pass
140	5700	-1.02	0.13	-0.89	11	Pass
144 (U-NII-2C)	5720	0.48	0.13	0.61	11	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.6 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	2.21	0.15	2.36	11	Pass
40	5200	1.98	0.15	2.13	11	Pass
48	5240	2.10	0.15	2.25	11	Pass
52	5260	2.06	0.15	2.21	11	Pass
60	5300	2.88	0.15	3.03	11	Pass
64	5320	1.43	0.15	1.58	11	Pass
100	5500	2.22	0.15	2.37	11	Pass
116	5580	1.61	0.15	1.76	11	Pass
140	5700	-0.48	0.15	-0.33	11	Pass
144 (U-NII-2C)	5720	0.54	0.15	0.69	11	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.6 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
38	5190	-2.39	0.14	-2.25	11	Pass
46	5230	-1.97	0.14	-1.83	11	Pass
54	5270	-1.62	0.14	-1.48	11	Pass
62	5310	-4.01	0.14	-3.87	11	Pass
102	5510	-4.71	0.14	-4.57	11	Pass
110	5550	-2.39	0.14	-2.25	11	Pass
134	5670	-3.59	0.14	-3.45	11	Pass
142 (U-NII-2C)	5710	-3.49	0.14	-3.35	11	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.6 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
42	5210	-5.61	0.77	-4.84	11	Pass
58	5290	-6.88	0.77	-6.11	11	Pass
106	5530	-9.31	0.77	-8.54	11	Pass
122	5610	-6.16	0.77	-5.39	11	Pass
138 (U-NII-2C)	5690	-6.78	0.77	-6.01	11	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.6 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
144 (U-NII-3)	5720	-4.86	0.13	-2.51	30	Pass
149	5745	-4.42	0.13	-2.07	30	Pass
157	5785	-4.94	0.13	-2.59	30	Pass
165	5825	-5	0.13	-2.65	30	Pass

Note: For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
144 (U-NII-3)	5720	-4.91	0.15	-2.54	30	Pass
149	5745	-4.72	0.15	-2.35	30	Pass
157	5785	-5.28	0.15	-2.91	30	Pass
165	5825	-5.36	0.15	-2.99	30	Pass

Note: For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
142 (U-NII-3)	5710	-10.44	0.14	-8.08	30	Pass
151	5755	-8.56	0.14	-6.20	30	Pass
159	5795	-8.65	0.14	-6.29	30	Pass

Note: For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.

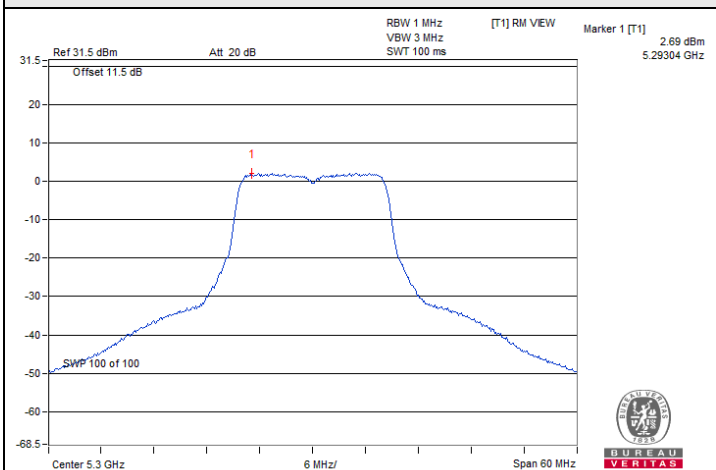
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
138 (U-NII-3)	5690	-16.57	0.77	-13.58	30	Pass
155	5775	-11.46	0.77	-8.47	30	Pass

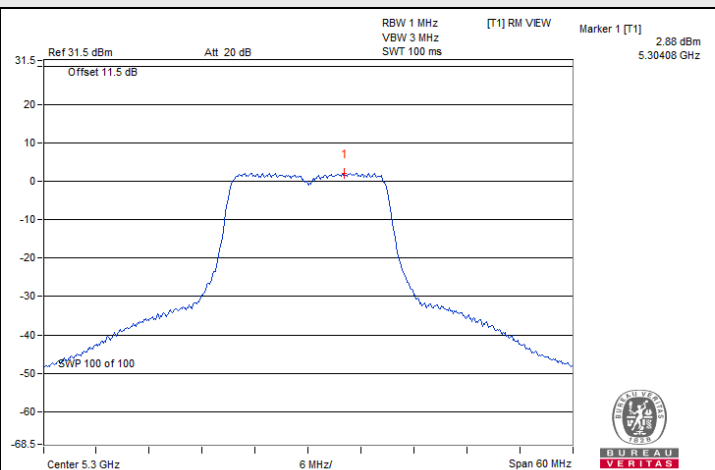
Note: For U-NII-3, the antenna gain is 3.6 dBi < 6 dBi, so the power density limit shall not be reduced.



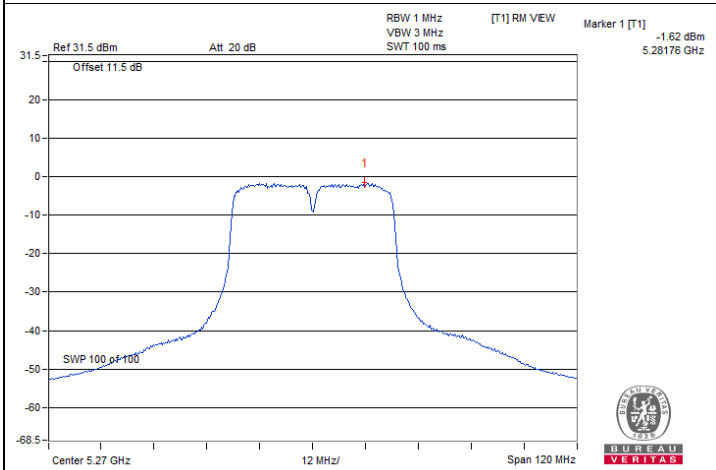
Spectrum Plot of Maximum Value



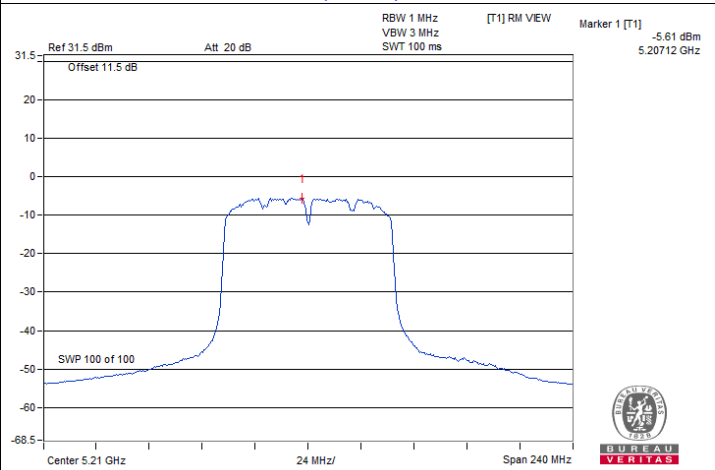
802.11a : CH 60



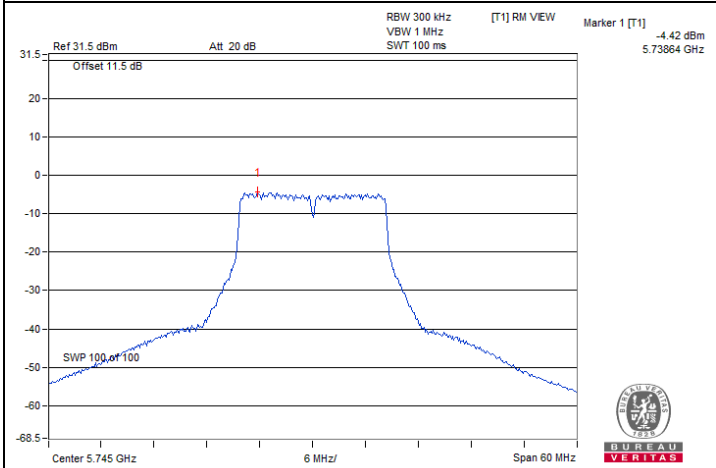
802.11n (HT20) : CH 60



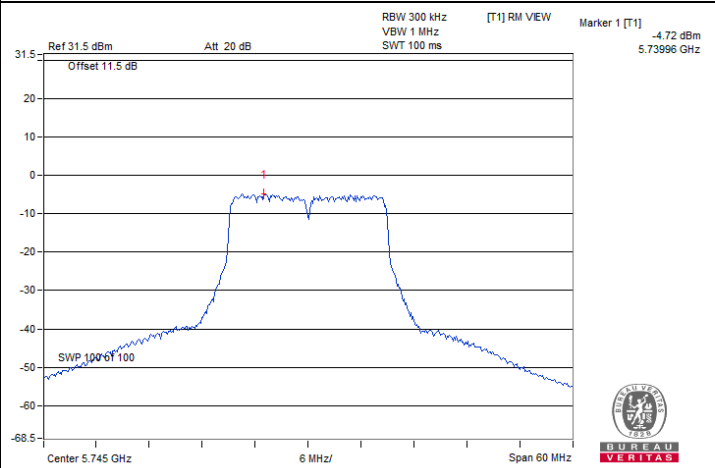
802.11n (HT40) : CH 54



802.11ac (VHT80) : CH 42



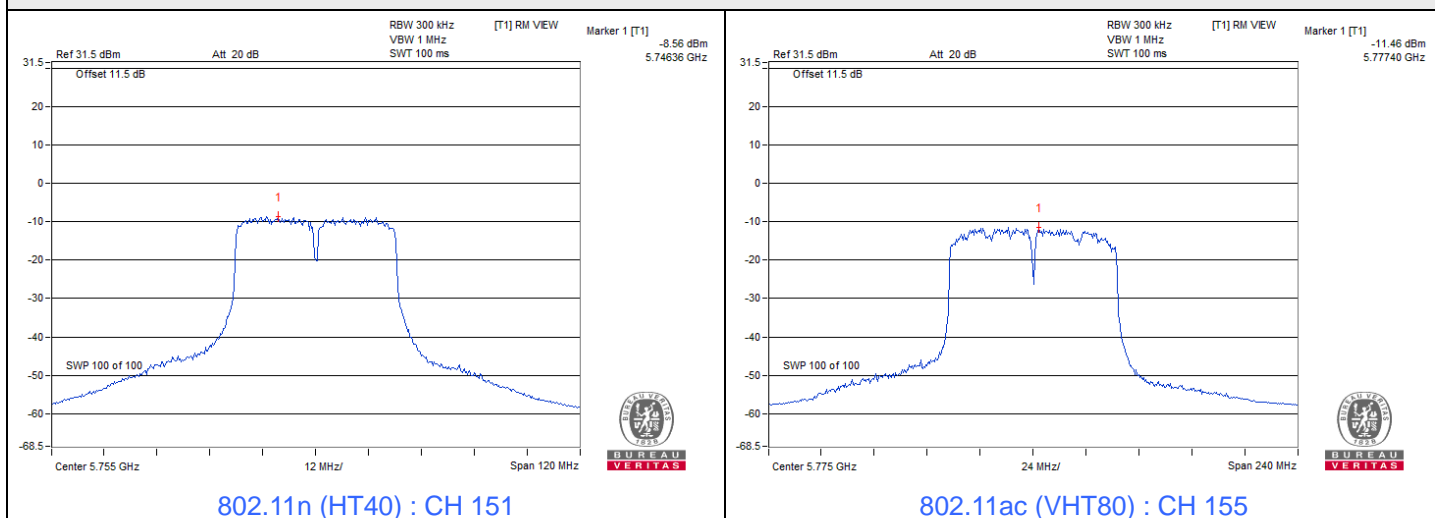
802.11a : CH 149



802.11n (HT20) : CH 149



Spectrum Plot of Maximum Value



7.4 6 dB Bandwidth

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

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
144 (U-NII-3)	5720	3.22	0.5	Pass
149	5745	16.44	0.5	Pass
157	5785	16.45	0.5	Pass
165	5825	16.46	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
144 (U-NII-3)	5720	3.81	0.5	Pass
149	5745	17.65	0.5	Pass
157	5785	17.64	0.5	Pass
165	5825	17.65	0.5	Pass

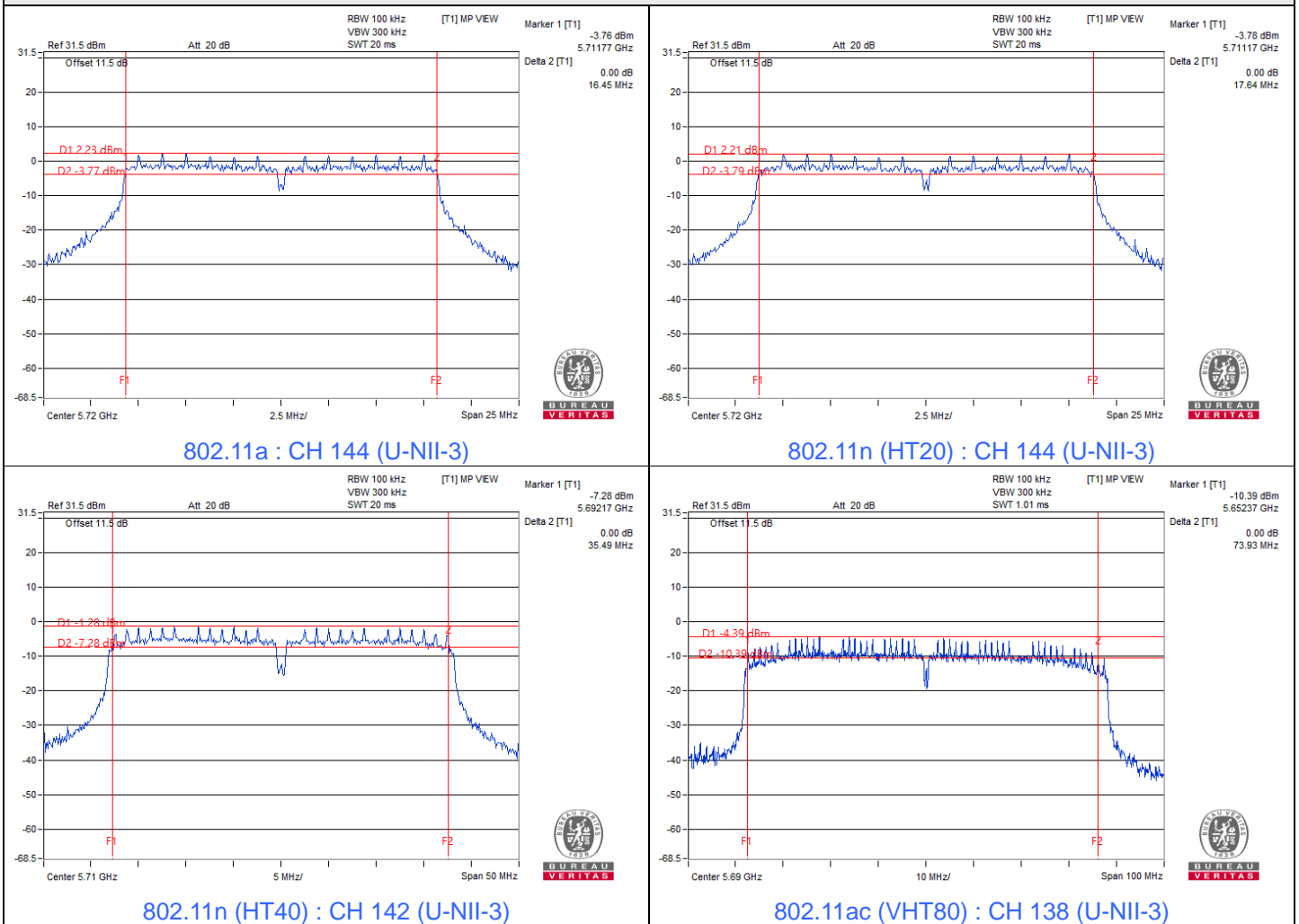
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
142 (U-NII-3)	5710	2.66	0.5	Pass
151	5755	35.34	0.5	Pass
159	5795	35.54	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
138 (U-NII-3)	5690	1.3	0.5	Pass
155	5775	75.27	0.5	Pass

Spectrum Plot of Minimum Value



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

7.5 Occupied Bandwidth

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

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.16
40	5200	17.28
48	5240	17.16
52	5260	17.28
60	5300	17.16
64	5320	17.28
100	5500	17.16
116	5580	17.16
140	5700	17.28
144 (U-NII-2C)	5720	13.76
144 (U-NII-3)	5720	3.52
149	5745	17.28
157	5785	17.16
165	5825	17.16

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.12
40	5200	18.12
48	5240	18.12
52	5260	18.24
60	5300	18.36
64	5320	18.36
100	5500	18.24
116	5580	18.24
140	5700	18.12
144 (U-NII-2C)	5720	14.12
144 (U-NII-3)	5720	4
149	5745	18.12
157	5785	18.12
165	5825	18.12

802.11n (HT40)

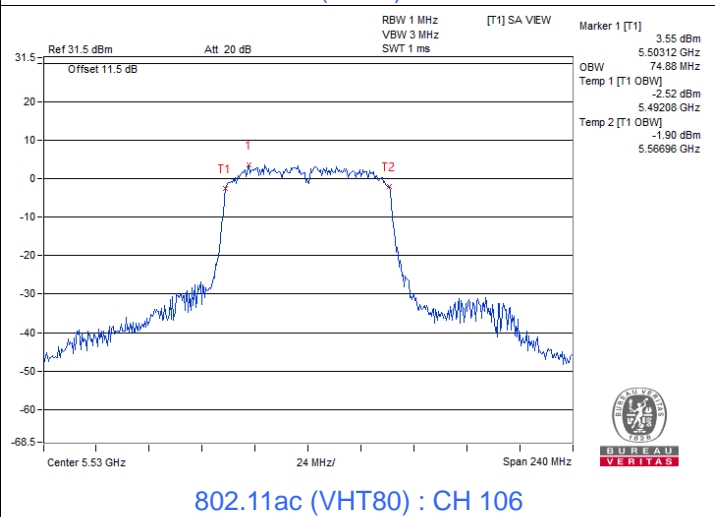
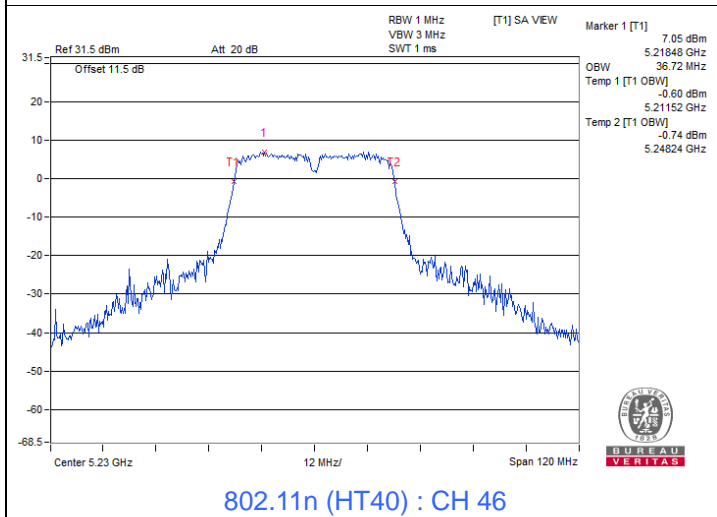
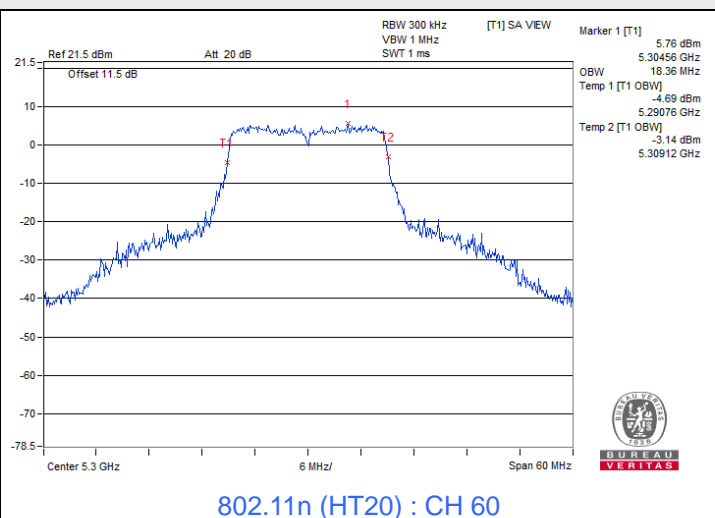
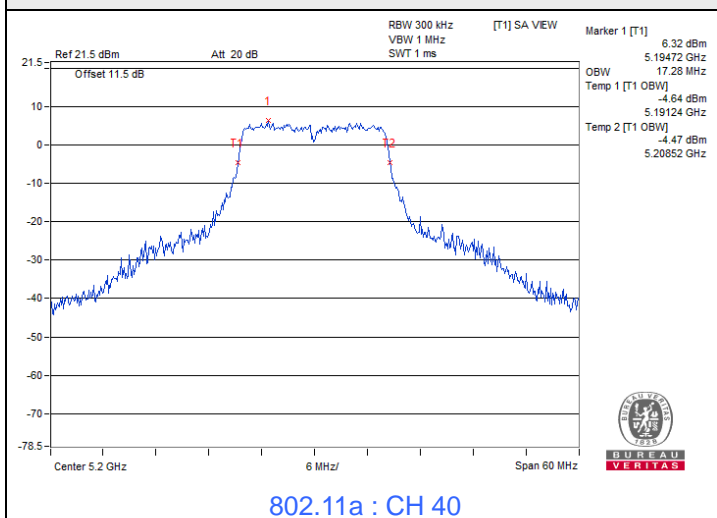
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.24
46	5230	36.72
54	5270	36.72
62	5310	36.72
102	5510	36.48
110	5550	36.72
134	5670	36.72
142 (U-NII-2C)	5710	33.48
142 (U-NII-3)	5710	3
151	5755	36.48
159	5795	36.72

802.11ac (VHT80)

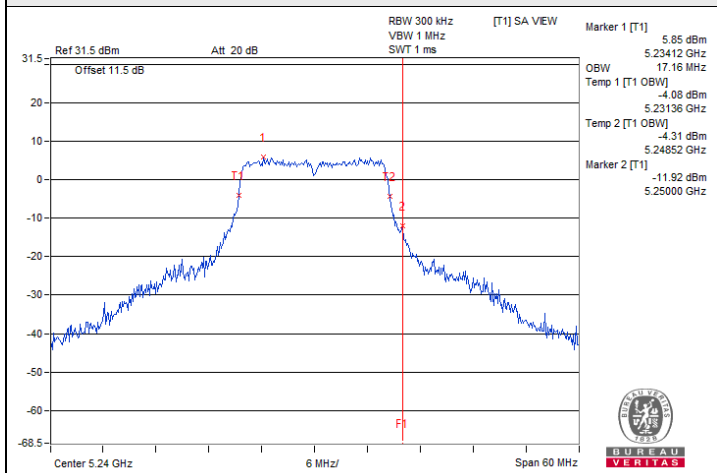
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	74.4
58	5290	74.4
106	5530	74.88
122	5610	74.4
138 (U-NII-2C)	5690	72.92
138 (U-NII-3)	5690	1.96
155	5775	74.88



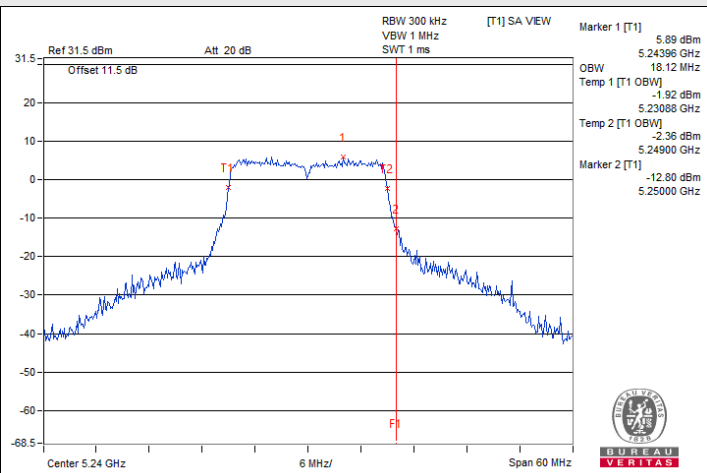
Spectrum Plot of Maximum Value



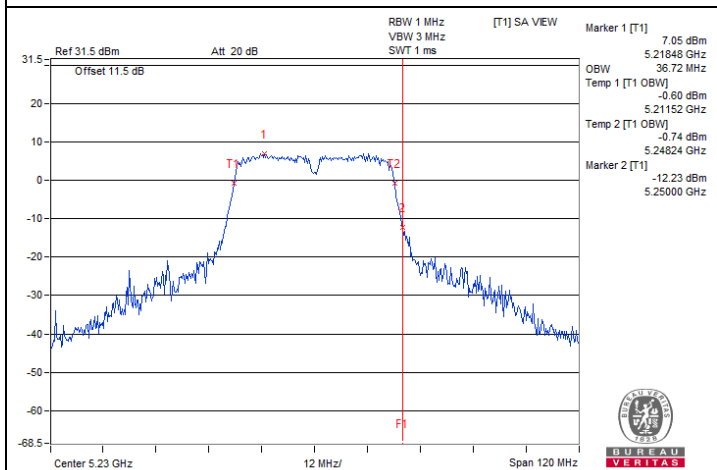
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A)



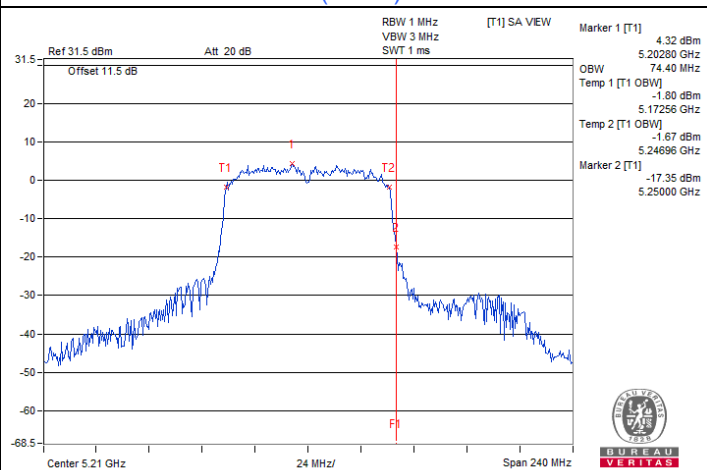
802.11a : CH 48



802.11n (HT20) : CH 48

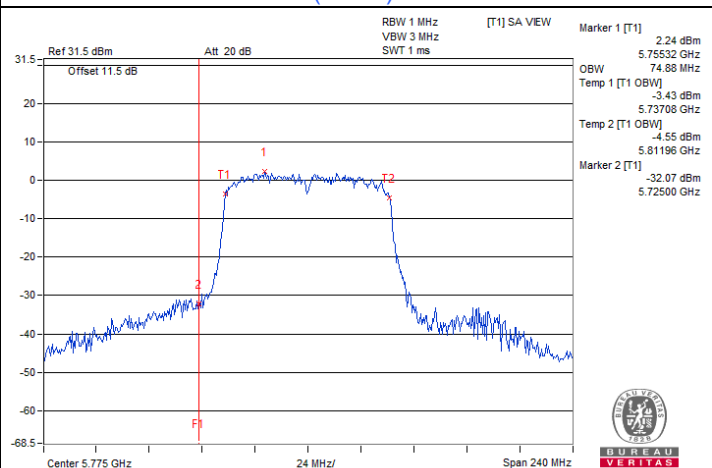
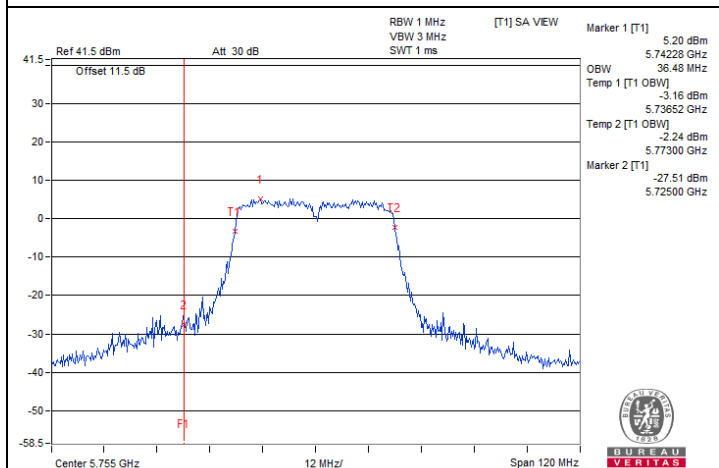
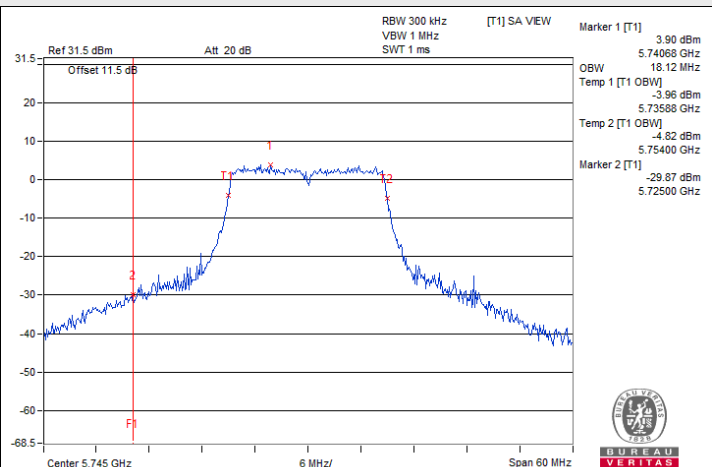
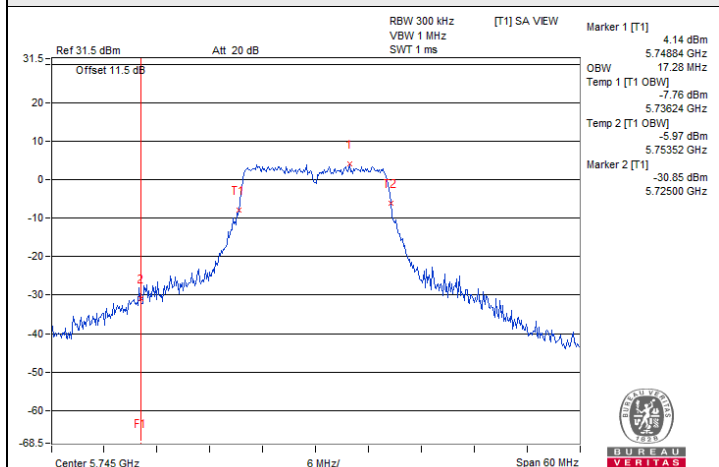


802.11n (HT40) : CH 46



802.11ac (VHT80) : CH 42

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



7.6 Frequency Stability

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

Frequency Stability Versus Temperature									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
70	120	5179.9942	Pass	5179.9965	Pass	5179.9948	Pass	5179.9938	Pass
60	120	5179.9771	Pass	5179.9781	Pass	5179.9764	Pass	5179.9784	Pass
50	120	5179.9898	Pass	5179.9925	Pass	5179.9896	Pass	5179.9908	Pass
40	120	5180.0011	Pass	5180.0029	Pass	5180.0028	Pass	5180.0032	Pass
30	120	5179.9813	Pass	5179.9811	Pass	5179.9805	Pass	5179.9771	Pass
20	120	5179.9739	Pass	5179.9723	Pass	5179.9747	Pass	5179.9753	Pass
10	120	5180.019	Pass	5180.0193	Pass	5180.0208	Pass	5180.0229	Pass
0	120	5180.0193	Pass	5180.0203	Pass	5180.0198	Pass	5180.0234	Pass
-10	120	5179.9844	Pass	5179.9864	Pass	5179.9831	Pass	5179.9826	Pass
-20	120	5180.0264	Pass	5180.0273	Pass	5180.0235	Pass	5180.0233	Pass
-30	120	5179.9821	Pass	5179.9814	Pass	5179.9783	Pass	5179.9827	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	5179.9661	Pass	5179.9677	Pass	5179.9701	Pass	5179.9652	Pass
	120	5179.9739	Pass	5179.9723	Pass	5179.9747	Pass	5179.9753	Pass
	102	5179.9803	Pass	5179.9818	Pass	5179.9811	Pass	5179.9809	Pass

7.7 AC Power Conducted Emissions

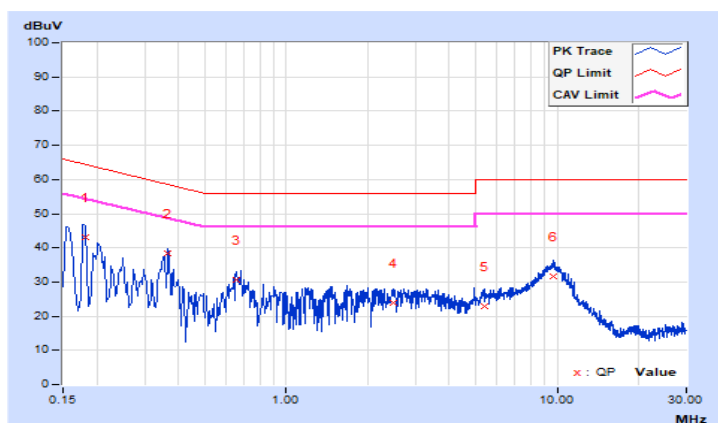
Mode A

RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.7°C, 66.4% RH
Tested By	Thomas Cheng		

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	0.18200	9.65	33.55	20.92	43.20	30.57	64.39	54.39	-21.19	-23.82
2	0.36600	9.68	28.54	19.40	38.22	29.08	58.59	48.59	-20.37	-19.51
3	0.65400	9.70	20.86	14.53	30.56	24.23	56.00	46.00	-25.44	-21.77
4	2.47400	9.74	14.28	5.86	24.02	15.60	56.00	46.00	-31.98	-30.40
5	5.43000	9.78	13.08	5.76	22.86	15.54	60.00	50.00	-37.14	-34.46
6	9.65800	9.83	21.76	14.28	31.59	24.11	60.00	50.00	-28.41	-25.89

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

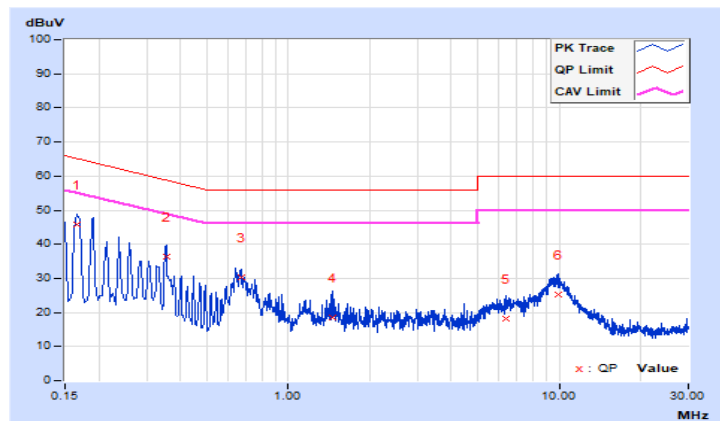


RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.7°C, 66.4% RH
Tested By	Thomas Cheng		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16600	9.65	36.22	16.18	45.87	25.83	65.16	55.16	-19.29	-29.33
2	0.35400	9.68	26.56	11.98	36.24	21.66	58.87	48.87	-22.63	-27.21
3	0.66811	9.70	20.44	14.61	30.14	24.31	56.00	46.00	-25.86	-21.69
4	1.46200	9.72	8.78	2.12	18.50	11.84	56.00	46.00	-37.50	-34.16
5	6.35000	9.79	8.47	2.79	18.26	12.58	60.00	50.00	-41.74	-37.42
6	9.96600	9.83	15.40	7.22	25.23	17.05	60.00	50.00	-34.77	-32.95

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



Mode B

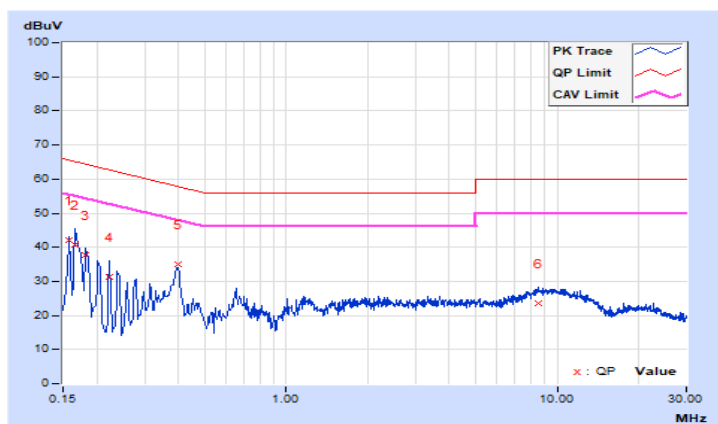
RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	0.15800	10.18	31.91	16.94	42.09	27.12	65.57	55.57	-23.48	-28.45
2	0.16600	10.19	30.69	15.99	40.88	26.18	65.16	55.16	-24.28	-28.98
3	0.18200	10.20	27.43	12.97	37.63	23.17	64.39	54.39	-26.76	-31.22
4	0.22200	10.21	21.26	6.36	31.47	16.57	62.74	52.74	-31.27	-36.17
5	0.39655	10.23	24.69	21.74	34.92	31.97	57.93	47.93	-23.01	-15.96
6	8.52600	10.44	13.01	8.37	23.45	18.81	60.00	50.00	-36.55	-31.19

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

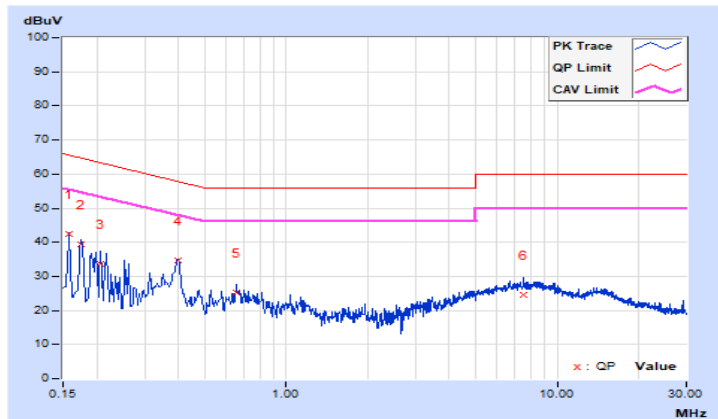


RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.18	32.38	17.20	42.56	27.38	65.57	55.57	-23.01	-28.19
2	0.17400	10.19	29.16	17.25	39.35	27.44	64.77	54.77	-25.42	-27.33
3	0.20600	10.21	23.54	10.25	33.75	20.46	63.37	53.37	-29.62	-32.91
4	0.39800	10.24	24.52	21.57	34.76	31.81	57.90	47.90	-23.14	-16.09
5	0.65400	10.26	14.85	7.99	25.11	18.25	56.00	46.00	-30.89	-27.75
6	7.51000	10.50	14.09	10.76	24.59	21.26	60.00	50.00	-35.41	-28.74

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

Mode A

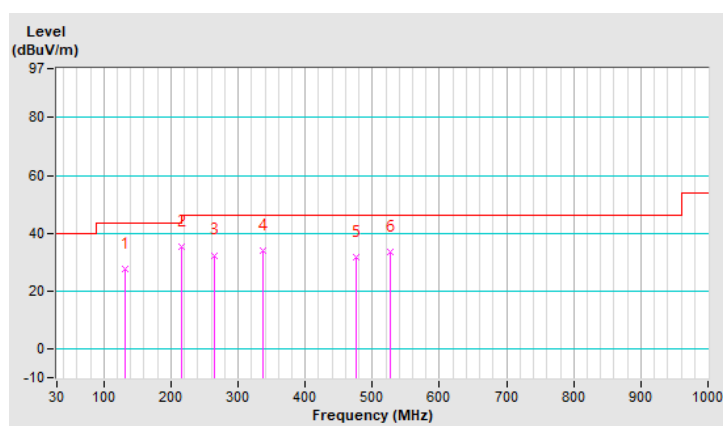
RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	27°C, 74% RH
Tested By	Randy Wu		

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	131.85	27.7 QP	43.5	-15.8	1.49 H	198	41.5	-13.8
2	216.24	35.5 QP	46.0	-10.5	1.00 H	193	51.7	-16.2
3	263.77	32.4 QP	46.0	-13.6	1.00 H	73	46.0	-13.6
4	336.52	34.1 QP	46.0	-11.9	1.00 H	73	45.4	-11.3
5	475.23	31.8 QP	46.0	-14.2	1.99 H	269	39.7	-7.9
6	527.61	33.7 QP	46.0	-12.3	1.99 H	258	40.8	-7.1

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.

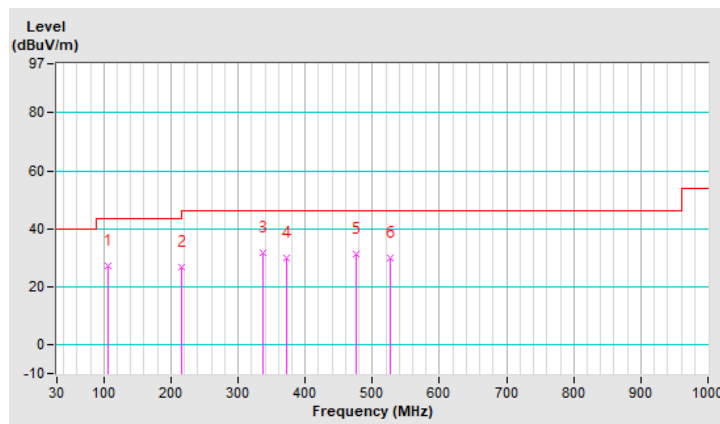


RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	27°C, 74% RH
Tested By	Randy Wu		

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	106.63	27.4 QP	43.5	-16.1	1.01 V	233	43.5	-16.1
2	216.24	26.9 QP	46.0	-19.1	2.00 V	150	43.1	-16.2
3	336.52	31.7 QP	46.0	-14.3	1.01 V	61	43.0	-11.3
4	371.44	30.1 QP	46.0	-15.9	1.01 V	140	40.7	-10.6
5	475.23	31.3 QP	46.0	-14.7	1.01 V	105	39.2	-7.9
6	527.61	30.0 QP	46.0	-16.0	2.00 V	50	37.1	-7.1

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.



Mode B

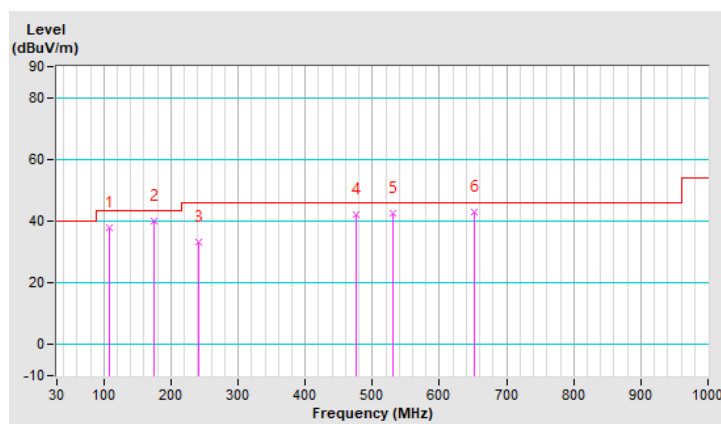
RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% RH
Tested By	Randy Wu		

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	107.60	37.9 QP	43.5	-5.6	1.51 H	208	53.8	-15.9
2	175.50	40.0 QP	43.5	-3.5	1.51 H	270	53.5	-13.5
3	240.49	33.4 QP	46.0	-12.6	1.01 H	215	47.6	-14.2
4	475.23	42.3 QP	46.0	-3.7	2.00 H	286	50.2	-7.9
5	531.49	42.6 QP	46.0	-3.4	1.51 H	294	49.7	-7.1
6	651.77	43.0 QP	46.0	-3.0	1.51 H	93	47.6	-4.6

Remarks:

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



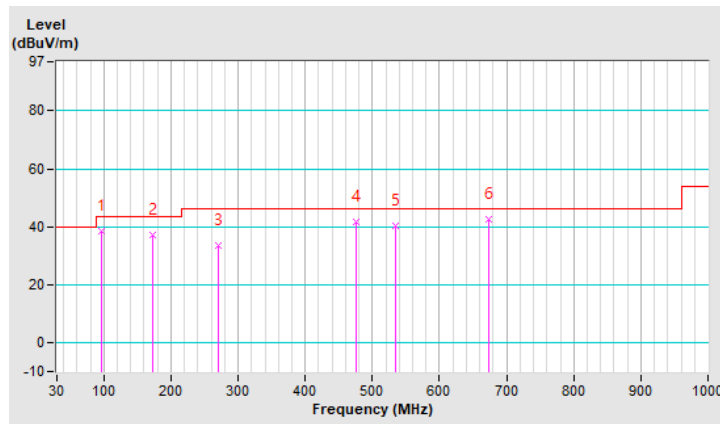


RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% RH
Tested By	Randy Wu		

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	95.96	38.5 QP	43.5	-5.0	1.99 V	132	56.3	-17.8
2	173.56	37.0 QP	43.5	-6.5	1.00 V	204	50.2	-13.2
3	269.59	33.6 QP	46.0	-12.4	1.99 V	198	46.8	-13.2
4	475.23	41.5 QP	46.0	-4.5	1.00 V	94	49.4	-7.9
5	535.37	40.5 QP	46.0	-5.5	1.00 V	127	47.6	-7.1
6	673.11	42.5 QP	46.0	-3.5	1.00 V	2	47.0	-4.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit 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	802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	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	60.90 PK	74.00	-13.10	1.00 H	42	57.30	3.60
2	5150.00	50.90 AV	54.00	-3.10	1.00 H	42	47.30	3.60
3	*5180.00	109.30 PK			1.00 H	42	68.10	41.20
4	*5180.00	101.80 AV			1.00 H	42	60.60	41.20
5	#10360.00	54.90 PK	68.20	-13.30	1.00 H	52	46.20	8.70
6	#10360.00	46.30 AV	54.00	-7.70	1.00 H	52	37.60	8.70
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	60.70 PK	74.00	-13.30	1.00 V	91	57.10	3.60
2	5150.00	50.00 AV	54.00	-4.00	1.00 V	91	46.40	3.60
3	*5180.00	108.90 PK			1.00 V	91	67.70	41.20
4	*5180.00	101.60 AV			1.00 V	91	60.40	41.20
5	#10360.00	56.10 PK	68.20	-12.10	1.00 V	25	47.40	8.70

Remarks:

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



RF Mode	802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	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	*5200.00	108.70 PK			1.00 H	42	67.60	41.10
2	*5200.00	101.70 AV			1.00 H	42	60.60	41.10
3	#10400.00	56.10 PK	68.20	-12.10	1.00 H	28	47.60	8.50

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	*5200.00	107.70 PK			1.00 V	93	66.60	41.10
2	*5200.00	100.70 AV			1.00 V	93	59.60	41.10
3	#10400.00	55.90 PK	68.20	-12.30	1.00 V	88	47.40	8.50

Remarks:

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



RF Mode	802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	*5240.00	109.20 PK			1.00 H	41	68.10	41.10
2	*5240.00	102.60 AV			1.00 H	41	61.50	41.10
3	5350.00	58.40 PK	74.00	-15.60	1.00 H	41	55.10	3.30
4	5350.00	48.70 AV	54.00	-5.30	1.00 H	41	45.40	3.30
5	#10480.00	56.60 PK	68.20	-11.60	1.21 H	25	47.50	9.10

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	107.20 PK			1.00 V	91	66.10	41.10
2	*5240.00	100.10 AV			1.00 V	91	59.00	41.10
3	5350.00	58.70 PK	74.00	-15.30	1.00 V	91	55.40	3.30
4	5350.00	48.50 AV	54.00	-5.50	1.00 V	91	45.20	3.30
5	#10480.00	56.20 PK	68.20	-12.00	1.21 V	82	47.10	9.10

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	69.00 PK	74.00	-5.00	1.00 H	42	65.40	3.60
2	5150.00	50.70 AV	54.00	-3.30	1.00 H	42	47.10	3.60
3	*5180.00	109.90 PK			1.00 H	42	68.70	41.20
4	*5180.00	102.10 AV			1.00 H	42	60.90	41.20
5	#10360.00	56.20 PK	68.20	-12.00	1.21 H	24	47.50	8.70

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	63.90 PK	74.00	-10.10	1.00 V	91	60.30	3.60
2	5150.00	50.50 AV	54.00	-3.50	1.00 V	91	46.90	3.60
3	*5180.00	106.50 PK			1.00 V	91	65.30	41.20
4	*5180.00	99.70 AV			1.00 V	91	58.50	41.20
5	#10360.00	55.80 PK	68.20	-12.40	1.02 V	82	47.10	8.70

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	*5200.00	109.60 PK			1.00 H	42	68.50	41.10
2	*5200.00	102.30 AV			1.00 H	42	61.20	41.10
3	#10400.00	56.00 PK	68.20	-12.20	1.00 H	56	47.50	8.50
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	*5200.00	108.30 PK			1.00 V	90	67.20	41.10
2	*5200.00	100.20 AV			1.00 V	90	59.10	41.10
3	#10400.00	55.80 PK	68.20	-12.40	1.21 V	25	47.30	8.50

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	*5240.00	108.90 PK			1.00 H	42	67.80	41.10
2	*5240.00	102.50 AV			1.00 H	42	61.40	41.10
3	5350.00	58.70 PK	74.00	-15.30	1.00 H	42	55.40	3.30
4	5350.00	48.70 AV	54.00	-5.30	1.00 H	42	45.40	3.30
5	#10480.00	56.40 PK	68.20	-11.80	1.31 H	24	47.30	9.10

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	106.00 PK			1.00 V	91	64.90	41.10
2	*5240.00	100.20 AV			1.00 V	91	59.10	41.10
3	5350.00	58.40 PK	74.00	-15.60	1.00 V	91	55.10	3.30
4	5350.00	48.50 AV	54.00	-5.50	1.00 V	91	45.20	3.30
5	#10480.00	56.40 PK	68.20	-11.80	1.41 V	21	47.30	9.10

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	62.20 PK	74.00	-11.80	1.00 H	42	58.60	3.60
2	5150.00	51.00 AV	54.00	-3.00	1.00 H	42	47.40	3.60
3	*5190.00	105.80 PK			1.00 H	42	64.70	41.10
4	*5190.00	98.50 AV			1.00 H	42	57.40	41.10
5	#10380.00	56.20 PK	68.20	-12.00	1.22 H	52	47.50	8.70

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	63.90 PK	74.00	-10.10	1.00 V	91	60.30	3.60
2	5150.00	50.90 AV	54.00	-3.10	1.00 V	91	47.30	3.60
3	*5190.00	103.90 PK			1.00 V	91	62.80	41.10
4	*5190.00	96.10 AV			1.00 V	91	55.00	41.10
5	#10380.00	56.30 PK	68.20	-11.90	1.44 V	82	47.60	8.70

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	*5230.00	107.90 PK			1.00 H	42	66.80	41.10
2	*5230.00	98.90 AV			1.00 H	42	57.80	41.10
3	5350.00	58.60 PK	74.00	-15.40	1.00 H	42	55.30	3.30
4	5350.00	38.60 AV	54.00	-15.40	1.00 H	42	35.30	3.30
5	#10460.00	56.60 PK	68.20	-11.60	1.22 H	33	47.70	8.90

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	*5230.00	104.90 PK			1.00 V	91	63.80	41.10
2	*5230.00	96.70 AV			1.00 V	91	55.60	41.10
3	5350.00	58.70 PK	74.00	-15.30	1.00 V	91	55.40	3.30
4	5350.00	38.50 AV	54.00	-15.50	1.00 V	91	35.20	3.30
5	#10460.00	56.10 PK	68.20	-12.10	1.24 V	36	47.20	8.90

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	66.90 PK	74.00	-7.10	1.00 H	42	63.30	3.60
2	5150.00	51.00 AV	54.00	-3.00	1.00 H	42	47.40	3.60
3	*5210.00	104.80 PK			1.00 H	42	63.70	41.10
4	*5210.00	95.00 AV			1.00 H	42	53.90	41.10
5	#10420.00	56.30 PK	68.20	-11.90	1.00 H	58	47.60	8.70

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	64.10 PK	74.00	-9.90	1.00 V	91	60.50	3.60
2	5150.00	50.70 AV	54.00	-3.30	1.00 V	91	47.10	3.60
3	*5210.00	100.90 PK			1.00 V	91	59.80	41.10
4	*5210.00	92.30 AV			1.00 V	91	51.20	41.10
5	#10420.00	56.30 PK	68.20	-11.90	1.21 V	82	47.60	8.70

Remarks:

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



RF Mode	802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	58.10 PK	74.00	-15.90	1.00 H	42	54.50	3.60
2	5150.00	48.20 AV	54.00	-5.80	1.00 H	42	44.60	3.60
3	*5260.00	109.20 PK			1.00 H	42	68.10	41.10
4	*5260.00	102.70 AV			1.00 H	42	61.60	41.10
5	#10520.00	56.70 PK	68.20	-11.50	1.21 H	36	47.40	9.30

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	57.90 PK	74.00	-16.10	1.00 V	91	54.30	3.60
2	5150.00	38.10 AV	54.00	-15.90	1.00 V	91	34.50	3.60
3	*5260.00	106.80 PK			1.00 V	91	65.70	41.10
4	*5260.00	99.90 AV			1.00 V	91	58.80	41.10
5	#10520.00	56.90 PK	68.20	-11.30	1.25 V	64	47.60	9.30

Remarks:

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



RF Mode	802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 74% 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	108.90 PK			1.25 H	34	67.90	41.00
2	*5300.00	101.80 AV			1.25 H	34	60.80	41.00
3	5350.00	58.60 PK	74.00	-15.40	1.25 H	34	55.30	3.30
4	5350.00	51.90 AV	54.00	-2.10	1.25 H	34	48.60	3.30
5	10600.00	57.30 PK	74.00	-16.70	1.22 H	34	47.60	9.70
6	10600.00	47.30 AV	54.00	-6.70	1.22 H	34	37.60	9.70

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	106.90 PK			1.27 V	120	65.90	41.00
2	*5300.00	99.10 AV			1.27 V	120	58.10	41.00
3	5350.00	59.70 PK	74.00	-14.30	1.27 V	120	56.40	3.30
4	5350.00	49.90 AV	54.00	-4.10	1.27 V	120	46.60	3.30
5	10600.00	57.20 PK	74.00	-16.80	1.27 V	120	47.50	9.70
6	10600.00	47.30 AV	54.00	-6.70	1.27 V	120	37.60	9.70

Remarks:

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



RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	108.10 PK			1.00 H	42	67.10	41.00
2	*5320.00	101.80 AV			1.00 H	42	60.80	41.00
3	5350.00	59.80 PK	74.00	-14.20	1.00 H	42	56.50	3.30
4	5350.00	50.90 AV	54.00	-3.10	1.00 H	42	47.60	3.30
5	10640.00	57.00 PK	74.00	-17.00	1.25 H	36	47.50	9.50
6	10640.00	47.20 AV	54.00	-6.80	1.25 H	36	37.70	9.50

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	104.30 PK			1.00 V	91	63.30	41.00
2	*5320.00	97.90 AV			1.00 V	91	56.90	41.00
3	5350.00	58.50 PK	74.00	-15.50	1.00 V	91	55.20	3.30
4	5350.00	49.50 AV	54.00	-4.50	1.00 V	91	46.20	3.30
5	10640.00	56.90 PK	74.00	-17.10	1.52 V	82	47.40	9.50
6	10640.00	47.00 AV	54.00	-7.00	1.52 V	82	37.50	9.50

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	58.00 PK	74.00	-16.00	1.00 H	40	54.40	3.60
2	5150.00	48.10 AV	54.00	-5.90	1.00 H	40	44.50	3.60
3	*5260.00	109.60 PK			1.00 H	40	68.50	41.10
4	*5260.00	102.40 AV			1.00 H	40	61.30	41.10
5	#10520.00	56.90 PK	68.20	-11.30	1.01 H	55	47.60	9.30

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	57.90 PK	74.00	-16.10	1.00 V	95	54.30	3.60
2	5150.00	48.10 AV	54.00	-5.90	1.00 V	95	44.50	3.60
3	*5260.00	107.60 PK			1.00 V	95	66.50	41.10
4	*5260.00	100.20 AV			1.00 V	95	59.10	41.10
5	#10520.00	56.90 PK	68.20	-11.30	1.36 V	158	47.60	9.30

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 74% 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	108.50 PK			1.25 H	34	67.50	41.00
2	*5300.00	101.80 AV			1.25 H	34	60.80	41.00
3	5350.00	59.20 PK	74.00	-14.80	1.25 H	34	55.90	3.30
4	5350.00	52.10 AV	54.00	-1.90	1.25 H	34	48.80	3.30
5	10600.00	57.30 PK	74.00	-16.70	1.41 H	35	47.60	9.70
6	10600.00	47.30 AV	54.00	-6.70	1.41 H	35	37.60	9.70

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	106.20 PK			1.27 V	120	65.20	41.00
2	*5300.00	98.50 AV			1.27 V	120	57.50	41.00
3	5350.00	58.50 PK	74.00	-15.50	1.27 V	120	55.20	3.30
4	5350.00	50.30 AV	54.00	-3.70	1.27 V	120	47.00	3.30
5	10600.00	57.10 PK	74.00	-16.90	1.26 V	111	47.40	9.70
6	10600.00	47.20 AV	54.00	-6.80	1.26 V	111	37.50	9.70

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	108.40 PK			1.10 H	47	67.40	41.00
2	*5320.00	100.40 AV			1.10 H	47	59.40	41.00
3	5350.00	64.00 PK	74.00	-10.00	1.10 H	47	60.70	3.30
4	5350.00	50.80 AV	54.00	-3.20	1.10 H	47	47.50	3.30
5	10640.00	57.10 PK	74.00	-16.90	1.10 H	56	47.60	9.50
6	10640.00	47.00 AV	54.00	-7.00	1.10 H	56	37.50	9.50

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	104.00 PK			1.00 V	91	63.00	41.00
2	*5320.00	97.00 AV			1.00 V	91	56.00	41.00
3	5350.00	58.50 PK	74.00	-15.50	1.00 V	91	55.20	3.30
4	5350.00	49.20 AV	54.00	-4.80	1.00 V	91	45.90	3.30
5	10640.00	57.00 PK	74.00	-17.00	1.22 V	89	47.50	9.50
6	10640.00	46.60 AV	54.00	-7.40	1.22 V	89	37.10	9.50

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	58.00 PK	74.00	-16.00	1.00 H	91	54.40	3.60
2	5150.00	48.10 AV	54.00	-5.90	1.00 H	91	44.50	3.60
3	*5270.00	102.70 PK			1.00 H	91	61.70	41.00
4	*5270.00	96.00 AV			1.00 H	91	55.00	41.00
5	#10540.00	56.90 PK	68.20	-11.30	1.00 H	91	47.50	9.40

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	58.00 PK	74.00	-16.00	1.00 V	87	54.40	3.60
2	5150.00	48.10 AV	54.00	-5.90	1.00 V	87	44.50	3.60
3	*5270.00	100.20 PK			1.00 V	87	59.20	41.00
4	*5270.00	92.00 AV			1.00 V	87	51.00	41.00
5	#10540.00	57.00 PK	68.20	-11.20	1.24 V	88	47.60	9.40

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	103.50 PK			1.00 H	42	62.50	41.00
2	*5310.00	95.80 AV			1.00 H	42	54.80	41.00
3	5350.00	58.60 PK	74.00	-15.40	1.00 H	42	55.30	3.30
4	5350.00	50.60 AV	54.00	-3.40	1.00 H	42	47.30	3.30
5	10620.00	57.10 PK	74.00	-16.90	1.25 H	54	47.50	9.60
6	10620.00	47.10 AV	54.00	-6.90	1.25 H	54	37.50	9.60

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	100.10 PK			1.00 V	91	59.10	41.00
2	*5310.00	92.40 AV			1.00 V	91	51.40	41.00
3	5350.00	59.20 PK	74.00	-14.80	1.00 V	91	55.90	3.30
4	5350.00	49.30 AV	54.00	-4.70	1.00 V	91	46.00	3.30
5	10620.00	57.00 PK	74.00	-17.00	1.24 V	74	47.40	9.60
6	10620.00	47.10 AV	54.00	-6.90	1.24 V	74	37.50	9.60

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 76% 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	101.80 PK			1.00 H	42	60.80	41.00
2	*5290.00	92.10 AV			1.00 H	42	51.10	41.00
3	5350.00	63.90 PK	74.00	-10.10	1.00 H	42	60.60	3.30
4	5350.00	50.90 AV	54.00	-3.10	1.00 H	42	47.60	3.30
5	#10580.00	57.20 PK	68.20	-11.00	1.25 H	34	47.60	9.60

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	96.70 PK			1.00 V	91	55.70	41.00
2	*5290.00	89.00 AV			1.00 V	91	48.00	41.00
3	5350.00	61.20 PK	74.00	-12.80	1.00 V	91	57.90	3.30
4	5350.00	49.10 AV	54.00	-4.90	1.00 V	91	45.80	3.30
5	#10580.00	57.20 PK	68.20	-11.00	1.00 V	82	47.60	9.60
6	#10580.00	47.20 AV	54.00	-6.80	1.00 V	82	37.60	9.60

Remarks:

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



RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 74% 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	58.80 PK	74.00	-15.20	1.23 H	42	55.40	3.40
2	5460.00	51.90 AV	54.00	-2.10	1.23 H	42	48.50	3.40
3	#5470.00	60.60 PK	68.20	-7.60	1.23 H	42	57.10	3.50
4	*5500.00	108.50 PK			1.23 H	42	67.10	41.40
5	*5500.00	101.50 AV			1.23 H	42	60.10	41.40
6	11000.00	56.80 PK	74.00	-17.20	1.25 H	63	47.60	9.20
7	11000.00	46.70 AV	54.00	-7.30	1.25 H	63	37.50	9.20

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	58.70 PK	74.00	-15.30	1.27 V	120	55.30	3.40
2	5460.00	49.70 AV	54.00	-4.30	1.27 V	120	46.30	3.40
3	#5470.00	61.10 PK	68.20	-7.10	1.27 V	120	57.60	3.50
4	*5500.00	105.70 PK			1.27 V	120	64.30	41.40
5	*5500.00	99.50 AV			1.27 V	120	58.10	41.40
6	11000.00	56.80 PK	74.00	-17.20	1.52 V	136	47.60	9.20
7	11000.00	46.70 AV	54.00	-7.30	1.52 V	136	37.50	9.20

Remarks:

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



RF Mode	802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	110.80 PK			1.12 H	53	69.00	41.80
2	*5580.00	103.50 AV			1.12 H	53	61.70	41.80
3	11160.00	57.20 PK	74.00	-16.80	1.15 H	63	47.60	9.60
4	11160.00	47.10 AV	54.00	-6.90	1.15 H	63	37.50	9.60

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	109.80 PK			2.40 V	120	68.00	41.80
2	*5580.00	102.50 AV			2.40 V	120	60.70	41.80
3	11160.00	57.20 PK	74.00	-16.80	2.54 V	152	47.60	9.60
4	11160.00	47.40 AV	54.00	-6.60	2.54 V	152	37.80	9.60

Remarks:

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



RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	109.90 PK			1.12 H	42	67.50	42.40
2	*5700.00	100.80 AV			1.12 H	42	58.40	42.40
3	#5725.00	64.70 PK	68.20	-3.50	1.12 H	42	59.80	4.90
4	11400.00	57.30 PK	74.00	-16.70	1.12 H	52	47.60	9.70
5	11400.00	47.50 AV	54.00	-6.50	1.12 H	52	37.80	9.70

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	107.70 PK			2.40 V	120	65.30	42.40
2	*5700.00	100.00 AV			2.40 V	120	57.60	42.40
3	#5725.00	63.30 PK	68.20	-4.90	2.40 V	120	58.40	4.90
4	11400.00	57.30 PK	74.00	-16.70	2.14 V	152	47.60	9.70
5	11400.00	47.20 AV	54.00	-6.80	2.14 V	152	37.50	9.70

Remarks:

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



RF Mode	802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	59.10 PK	68.20	-9.10	1.12 H	42	55.60	3.50
2	*5720.00	110.50 PK			1.12 H	42	68.00	42.50
3	*5720.00	103.10 AV			1.12 H	42	60.60	42.50
4	#5850.00	61.20 PK	68.20	-7.00	1.12 H	42	55.90	5.30
5	11440.00	58.10 PK	74.00	-15.90	1.15 H	66	48.30	9.80
6	11440.00	48.30 AV	54.00	-5.70	1.15 H	66	38.50	9.80

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	59.00 PK	68.20	-9.20	2.40 V	120	55.50	3.50
2	*5720.00	110.20 PK			2.40 V	120	67.70	42.50
3	*5720.00	102.50 AV			2.40 V	120	60.00	42.50
4	#5850.00	61.40 PK	68.20	-6.80	2.40 V	120	56.10	5.30
5	11440.00	57.30 PK	74.00	-16.70	2.24 V	152	47.50	9.80
6	11440.00	47.40 AV	54.00	-6.60	2.24 V	152	37.60	9.80

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 74% 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	61.90 PK	74.00	-12.10	1.25 H	34	58.50	3.40
2	5460.00	51.60 AV	54.00	-2.40	1.25 H	34	48.20	3.40
3	#5470.00	61.50 PK	68.20	-6.70	1.25 H	34	58.00	3.50
4	*5500.00	109.00 PK			1.25 H	34	67.60	41.40
5	*5500.00	101.50 AV			1.25 H	34	60.10	41.40
6	11000.00	56.80 PK	74.00	-17.20	1.24 H	52	47.60	9.20
7	11000.00	46.80 AV	54.00	-7.20	1.24 H	52	37.60	9.20

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	59.80 PK	74.00	-14.20	1.27 V	120	56.40	3.40
2	5460.00	50.30 AV	54.00	-3.70	1.27 V	120	46.90	3.40
3	#5470.00	61.50 PK	68.20	-6.70	1.27 V	120	58.00	3.50
4	*5500.00	107.10 PK			1.27 V	120	65.70	41.40
5	*5500.00	99.40 AV			1.27 V	120	58.00	41.40
6	11000.00	56.80 PK	74.00	-17.20	1.41 V	124	47.60	9.20
7	11000.00	46.70 AV	54.00	-7.30	1.41 V	124	37.50	9.20

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	111.80 PK			1.12 H	41	70.00	41.80
2	*5580.00	103.20 AV			1.12 H	41	61.40	41.80
3	11160.00	57.20 PK	74.00	-16.80	1.15 H	64	47.60	9.60
4	11160.00	47.10 AV	54.00	-6.90	1.15 H	64	37.50	9.60

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	109.90 PK			2.40 V	120	68.10	41.80
2	*5580.00	102.40 AV			2.40 V	120	60.60	41.80
3	11160.00	56.90 PK	74.00	-17.10	2.14 V	122	47.30	9.60
4	11160.00	47.10 AV	54.00	-6.90	2.14 V	122	37.50	9.60

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	110.00 PK			1.12 H	42	67.60	42.40
2	*5700.00	102.70 AV			1.12 H	42	60.30	42.40
3	#5725.00	65.10 PK	68.20	-3.10	1.12 H	42	60.20	4.90
4	11400.00	57.30 PK	74.00	-16.70	1.12 H	58	47.60	9.70
5	11400.00	47.20 AV	54.00	-6.80	1.12 H	58	37.50	9.70

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	109.00 PK			2.40 V	120	66.60	42.40
2	*5700.00	101.10 AV			2.40 V	120	58.70	42.40
3	#5725.00	65.00 PK	68.20	-3.20	2.40 V	120	60.10	4.90
4	11400.00	57.00 PK	74.00	-17.00	2.52 V	152	47.30	9.70
5	11400.00	46.90 AV	54.00	-7.10	2.52 V	152	37.20	9.70

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	60.20 PK	68.20	-8.00	1.12 H	42	56.70	3.50
2	*5720.00	112.00 PK			1.12 H	42	69.50	42.50
3	*5720.00	103.60 AV			1.12 H	42	61.10	42.50
4	#5850.00	61.10 PK	68.20	-7.10	1.12 H	42	55.80	5.30
5	11440.00	58.20 PK	74.00	-15.80	1.15 H	34	48.40	9.80
6	11440.00	48.30 AV	54.00	-5.70	1.15 H	34	38.50	9.80

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	58.90 PK	68.20	-9.30	2.40 V	120	55.40	3.50
2	*5720.00	111.00 PK			2.40 V	120	68.50	42.50
3	*5720.00	102.60 AV			2.40 V	120	60.10	42.50
4	#5850.00	60.90 PK	68.20	-7.30	2.40 V	120	55.60	5.30
5	11440.00	58.10 PK	74.00	-15.90	2.55 V	163	48.30	9.80
6	11440.00	48.00 AV	54.00	-6.00	2.55 V	163	38.20	9.80

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	61.50 PK	74.00	-12.50	1.12 H	42	58.10	3.40
2	5460.00	50.90 AV	54.00	-3.10	1.12 H	42	47.50	3.40
3	#5470.00	61.90 PK	68.20	-6.30	1.12 H	42	58.40	3.50
4	*5510.00	105.00 PK			1.12 H	42	63.60	41.40
5	*5510.00	97.10 AV			1.12 H	42	55.70	41.40
6	11020.00	57.00 PK	74.00	-17.00	1.22 H	25	47.60	9.40
7	11020.00	47.00 AV	54.00	-7.00	1.22 H	25	37.60	9.40

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	60.80 PK	74.00	-13.20	1.39 V	117	57.40	3.40
2	5460.00	50.20 AV	54.00	-3.80	1.39 V	117	46.80	3.40
3	#5470.00	63.30 PK	68.20	-4.90	1.39 V	117	59.80	3.50
4	*5510.00	101.80 PK			1.39 V	117	60.40	41.40
5	*5510.00	93.50 AV			1.39 V	117	52.10	41.40
6	11020.00	57.00 PK	74.00	-17.00	1.22 V	115	47.60	9.40
7	11020.00	47.00 AV	54.00	-7.00	1.22 V	115	37.60	9.40

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	107.40 PK			1.02 H	43	65.80	41.60
2	*5550.00	100.60 AV			1.02 H	43	59.00	41.60
3	11100.00	57.30 PK	74.00	-16.70	1.12 H	55	47.40	9.90
4	11100.00	47.40 AV	54.00	-6.60	1.12 H	55	37.50	9.90

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	104.30 PK			1.40 V	116	62.70	41.60
2	*5550.00	97.00 AV			1.40 V	116	55.40	41.60
3	11100.00	58.10 PK	74.00	-15.90	1.55 V	123	48.20	9.90
4	11100.00	48.00 AV	54.00	-6.00	1.55 V	123	38.10	9.90

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	110.00 PK			1.12 H	42	67.70	42.30
2	*5670.00	100.20 AV			1.12 H	42	57.90	42.30
3	#5725.00	64.80 PK	68.20	-3.40	1.12 H	42	59.90	4.90
4	11340.00	57.20 PK	74.00	-16.80	1.25 H	55	47.50	9.70
5	11340.00	47.40 AV	54.00	-6.60	1.25 H	55	37.70	9.70

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	105.10 PK			1.40 V	120	62.80	42.30
2	*5670.00	97.10 AV			1.40 V	120	54.80	42.30
3	#5725.00	62.90 PK	68.20	-5.30	1.40 V	120	58.00	4.90
4	11340.00	57.20 PK	74.00	-16.80	1.55 V	152	47.50	9.70
5	11340.00	48.10 AV	54.00	-5.90	1.55 V	152	38.40	9.70

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	58.90 PK	68.20	-9.30	1.24 H	42	55.40	3.50
2	*5710.00	106.90 PK			1.24 H	42	64.40	42.50
3	*5710.00	99.50 AV			1.24 H	42	57.00	42.50
4	#5850.00	60.30 PK	68.20	-7.90	1.24 H	42	55.00	5.30
5	11420.00	58.00 PK	74.00	-16.00	1.22 H	55	48.20	9.80
6	11420.00	48.20 AV	54.00	-5.80	1.22 H	55	38.40	9.80

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	58.90 PK	68.20	-9.30	1.40 V	120	55.40	3.50
2	*5710.00	106.70 PK			1.40 V	120	64.20	42.50
3	*5710.00	98.00 AV			1.40 V	120	55.50	42.50
4	#5850.00	60.60 PK	68.20	-7.60	1.40 V	120	55.30	5.30
5	11420.00	57.40 PK	74.00	-16.60	1.52 V	133	47.60	9.80
6	11420.00	47.30 AV	54.00	-6.70	1.52 V	133	37.50	9.80

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	60.90 PK	74.00	-13.10	1.12 H	42	57.50	3.40
2	5460.00	50.90 AV	54.00	-3.10	1.12 H	42	47.50	3.40
3	#5470.00	61.80 PK	68.20	-6.40	1.12 H	42	58.30	3.50
4	*5530.00	98.30 PK			1.12 H	42	56.80	41.50
5	*5530.00	90.20 AV			1.12 H	42	48.70	41.50
6	11060.00	58.10 PK	74.00	-15.90	1.15 H	55	48.40	9.70
7	11060.00	47.90 AV	54.00	-6.10	1.15 H	55	38.20	9.70
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	60.40 PK	74.00	-13.60	1.40 V	120	57.00	3.40
2	5460.00	50.90 AV	54.00	-3.10	1.40 V	120	47.50	3.40
3	#5470.00	60.80 PK	68.20	-7.40	1.40 V	120	57.30	3.50
4	*5530.00	97.30 PK			1.40 V	120	55.80	41.50
5	*5530.00	88.40 AV			1.40 V	120	46.90	41.50
6	11060.00	57.10 PK	74.00	-16.90	1.52 V	36	47.40	9.70
7	11060.00	47.20 AV	54.00	-6.80	1.52 V	36	37.50	9.70

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	104.00 PK			1.12 H	42	62.00	42.00
2	*5610.00	95.50 AV			1.12 H	42	53.50	42.00
3	#5725.00	61.90 PK	68.20	-6.30	1.12 H	45	57.00	4.90
4	11220.00	57.80 PK	74.00	-16.20	1.25 H	52	48.30	9.50
5	11220.00	48.00 AV	54.00	-6.00	1.25 H	52	38.50	9.50

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	102.90 PK			1.40 V	120	60.90	42.00
2	*5610.00	93.80 AV			1.40 V	120	51.80	42.00
3	#5725.00	62.50 PK	68.20	-5.70	1.40 V	120	57.60	4.90
4	11220.00	57.90 PK	74.00	-16.10	1.45 V	133	48.40	9.50
5	11220.00	47.80 AV	54.00	-6.20	1.45 V	133	38.30	9.50

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	58.90 PK	68.20	-9.30	1.02 H	42	55.40	3.50
2	*5690.00	104.90 PK			1.02 H	42	62.60	42.30
3	*5690.00	95.90 AV			1.02 H	42	53.60	42.30
4	#5850.00	60.70 PK	68.20	-7.50	1.02 H	42	55.40	5.30
5	11380.00	57.40 PK	74.00	-16.60	1.02 H	44	47.60	9.80
6	11380.00	47.30 AV	54.00	-6.70	1.02 H	44	37.50	9.80

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	58.90 PK	68.20	-9.30	1.37 V	118	55.40	3.50
2	*5690.00	102.60 PK			1.37 V	118	60.30	42.30
3	*5690.00	94.00 AV			1.37 V	118	51.70	42.30
4	#5850.00	60.60 PK	68.20	-7.60	1.37 V	118	55.30	5.30
5	11380.00	58.20 PK	74.00	-15.80	1.34 V	112	48.40	9.80
6	11380.00	48.20 AV	54.00	-5.80	1.34 V	112	38.40	9.80

Remarks:

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



RF Mode	802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5618.00	57.70 PK	68.20	-10.50	1.12 H	56	53.50	4.20
2	*5745.00	112.60 PK			1.12 H	56	69.90	42.70
3	*5745.00	104.40 AV			1.12 H	56	61.70	42.70
4	#5958.00	59.60 PK	68.20	-8.60	1.12 H	56	54.50	5.10
5	11490.00	58.40 PK	74.00	-15.60	1.15 H	55	48.30	10.10
6	11490.00	48.30 AV	54.00	-5.70	1.15 H	55	38.20	10.10

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	#5625.20	56.60 PK	68.20	-11.60	1.40 V	122	52.40	4.20
2	*5745.00	111.20 PK			1.40 V	122	68.50	42.70
3	*5745.00	103.00 AV			1.40 V	122	60.30	42.70
4	#5976.40	59.00 PK	68.20	-9.20	1.40 V	122	53.80	5.20
5	11490.00	58.70 PK	74.00	-15.30	1.53 V	163	48.60	10.10
6	11490.00	48.20 AV	54.00	-5.80	1.53 V	163	38.10	10.10

Remarks:

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



RF Mode	802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5608.40	58.10 PK	68.20	-10.10	1.12 H	58	54.00	4.10
2	*5785.00	112.70 PK			1.12 H	58	69.90	42.80
3	*5785.00	104.80 AV			1.12 H	58	62.00	42.80
4	#5977.20	58.50 PK	68.20	-9.70	1.12 H	58	53.30	5.20
5	11570.00	58.40 PK	74.00	-15.60	1.25 H	64	48.60	9.80
6	11570.00	48.40 AV	54.00	-5.60	1.25 H	64	38.60	9.80

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	#5616.80	57.80 PK	68.20	-10.40	1.40 V	122	53.60	4.20
2	*5785.00	112.60 PK			1.40 V	122	69.80	42.80
3	*5785.00	103.20 AV			1.40 V	122	60.40	42.80
4	#5963.60	58.30 PK	68.20	-9.90	1.40 V	122	53.10	5.20
5	11470.00	58.30 PK	74.00	-15.70	1.45 V	162	48.40	9.90
6	11470.00	48.50 AV	54.00	-5.50	1.45 V	162	38.60	9.90

Remarks:

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



RF Mode	802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5649.20	57.90 PK	68.20	-10.30	1.12 H	56	53.40	4.50
2	*5825.00	112.30 PK			1.12 H	56	69.50	42.80
3	*5825.00	105.20 AV			1.12 H	56	62.40	42.80
4	#5943.20	59.00 PK	68.20	-9.20	1.12 H	56	53.90	5.10
5	11650.00	58.30 PK	74.00	-15.70	1.15 H	41	48.50	9.80
6	11650.00	48.10 AV	54.00	-5.90	1.15 H	41	38.30	9.80

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.60	57.60 PK	68.20	-10.60	1.42 V	117	53.30	4.30
2	*5825.00	110.90 PK			1.42 V	117	68.10	42.80
3	*5825.00	103.90 AV			1.42 V	117	61.10	42.80
4	#5963.60	59.20 PK	68.20	-9.00	1.42 V	117	54.00	5.20
5	11650.00	58.00 PK	74.00	-16.00	1.45 V	131	48.20	9.80
6	11650.00	48.10 AV	54.00	-5.90	1.45 V	131	38.30	9.80

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5644.80	58.50 PK	68.20	-9.70	1.00 H	53	54.10	4.40
2	*5745.00	112.30 PK			1.00 H	53	69.60	42.70
3	*5745.00	105.00 AV			1.00 H	53	62.30	42.70
4	#5971.20	58.70 PK	68.20	-9.50	1.00 H	53	53.50	5.20
5	11490.00	58.30 PK	74.00	-15.70	1.25 H	64	48.20	10.10
6	11490.00	48.50 AV	54.00	-5.50	1.25 H	64	38.40	10.10

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	#5628.80	60.00 PK	68.20	-8.20	1.42 V	122	55.70	4.30
2	*5745.00	111.20 PK			1.42 V	122	68.50	42.70
3	*5745.00	102.90 AV			1.42 V	122	60.20	42.70
4	#5948.40	60.30 PK	68.20	-7.90	1.42 V	122	55.20	5.10
5	11490.00	58.50 PK	74.00	-15.50	1.22 V	141	48.40	10.10
6	11490.00	48.60 AV	54.00	-5.40	1.22 V	141	38.50	10.10

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5636.80	57.20 PK	68.20	-11.00	1.00 H	52	52.90	4.30
2	*5785.00	112.40 PK			1.00 H	52	69.60	42.80
3	*5785.00	105.10 AV			1.00 H	52	62.30	42.80
4	#5982.80	59.90 PK	68.20	-8.30	1.00 H	52	54.60	5.30
5	11570.00	58.20 PK	74.00	-15.80	1.21 H	64	48.40	9.80
6	11570.00	48.30 AV	54.00	-5.70	1.21 H	64	38.50	9.80

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	#5631.60	57.20 PK	68.20	-11.00	1.42 V	118	52.90	4.30
2	*5785.00	111.10 PK			1.42 V	118	68.30	42.80
3	*5785.00	103.30 AV			1.42 V	118	60.50	42.80
4	#5979.20	59.60 PK	68.20	-8.60	1.42 V	118	54.30	5.30
5	11570.00	57.90 PK	74.00	-16.10	1.55 V	131	48.10	9.80
6	11570.00	48.10 AV	54.00	-5.90	1.55 V	131	38.30	9.80

Remarks:

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



RF Mode	802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5623.60	56.70 PK	68.20	-11.50	1.02 H	58	52.50	4.20
2	*5825.00	111.90 PK			1.02 H	58	69.10	42.80
3	*5825.00	105.20 AV			1.02 H	58	62.40	42.80
4	#5954.40	58.50 PK	68.20	-9.70	1.02 H	58	53.40	5.10
5	11650.00	58.20 PK	74.00	-15.80	1.33 H	54	48.40	9.80
6	11650.00	48.20 AV	54.00	-5.80	1.33 H	54	38.40	9.80

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	#5619.60	58.30 PK	68.20	-9.90	1.42 V	119	54.10	4.20
2	*5825.00	111.20 PK			1.42 V	119	68.40	42.80
3	*5825.00	104.00 AV			1.42 V	119	61.20	42.80
4	#5947.20	59.50 PK	68.20	-8.70	1.42 V	119	54.40	5.10
5	11650.00	58.20 PK	74.00	-15.80	1.52 V	123	48.40	9.80
6	11650.00	48.00 AV	54.00	-6.00	1.52 V	123	38.20	9.80

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5632.00	58.10 PK	68.20	-10.10	1.00 H	58	53.80	4.30
2	*5755.00	111.50 PK			1.00 H	58	68.70	42.80
3	*5755.00	101.30 AV			1.00 H	58	58.50	42.80
4	#5966.00	58.70 PK	68.20	-9.50	1.00 H	58	53.50	5.20
5	11510.00	58.40 PK	74.00	-15.60	1.00 H	25	48.40	10.00
6	11510.00	48.50 AV	54.00	-5.50	1.00 H	25	38.50	10.00

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	#5628.80	56.60 PK	68.20	-11.60	1.37 V	117	52.30	4.30
2	*5755.00	107.90 PK			1.37 V	117	65.10	42.80
3	*5755.00	99.90 AV			1.37 V	117	57.10	42.80
4	#5958.40	58.10 PK	68.20	-10.10	1.37 V	117	52.90	5.20
5	11510.00	58.40 PK	74.00	-15.60	1.33 V	152	48.40	10.00
6	11510.00	48.50 AV	54.00	-5.50	1.33 V	152	38.50	10.00

Remarks:

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



RF Mode	802.11n (HT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5643.60	58.10 PK	68.20	-10.10	1.02 H	54	53.70	4.40
2	*5795.00	110.60 PK			1.02 H	54	67.80	42.80
3	*5795.00	102.30 AV			1.02 H	54	59.50	42.80
4	#5954.80	57.80 PK	68.20	-10.40	1.02 H	54	52.70	5.10
5	11590.00	58.20 PK	74.00	-15.80	1.21 H	58	48.40	9.80
6	11590.00	48.30 AV	54.00	-5.70	1.21 H	58	38.50	9.80

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	57.90 PK	68.20	-10.30	1.39 V	120	53.50	4.40
2	*5795.00	107.80 PK			1.39 V	120	65.00	42.80
3	*5795.00	99.40 AV			1.39 V	120	56.60	42.80
4	#5959.20	58.50 PK	68.20	-9.70	1.39 V	120	53.30	5.20
5	11590.00	58.00 PK	74.00	-16.00	1.33 V	152	48.20	9.80
6	11590.00	47.80 AV	54.00	-6.20	1.33 V	152	38.00	9.80

Remarks:

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



RF Mode	802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 65% 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	#5623.60	57.80 PK	68.20	-10.40	1.02 H	55	53.60	4.20
2	*5775.00	108.10 PK			1.02 H	55	65.30	42.80
3	*5775.00	98.50 AV			1.02 H	55	55.70	42.80
4	#5935.20	58.70 PK	68.20	-9.50	1.02 H	55	53.60	5.10
5	11550.00	58.30 PK	74.00	-15.70	1.02 H	57	48.40	9.90
6	11550.00	48.20 AV	54.00	-5.80	1.02 H	57	38.30	9.90

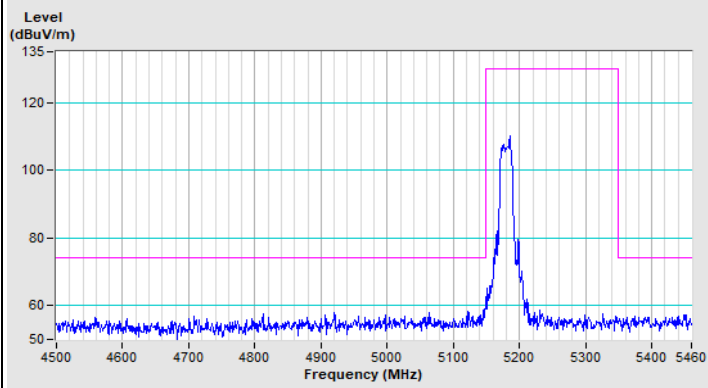
Antenna Polarity & Test Distance : Vertical at 3 m

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	#5631.60	59.10 PK	68.20	-9.10	1.40 V	118	54.80	4.30
2	*5775.00	105.20 PK			1.40 V	118	62.40	42.80
3	*5775.00	96.10 AV			1.40 V	118	53.30	42.80
4	#5943.60	60.10 PK	68.20	-8.10	1.40 V	118	55.00	5.10
5	11550.00	58.30 PK	74.00	-15.70	1.31 V	152	48.40	9.90
6	11550.00	48.30 AV	54.00	-5.70	1.31 V	152	38.40	9.90

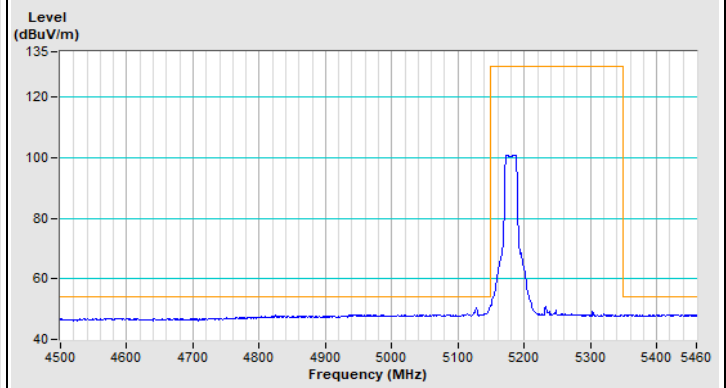
Remarks:

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.

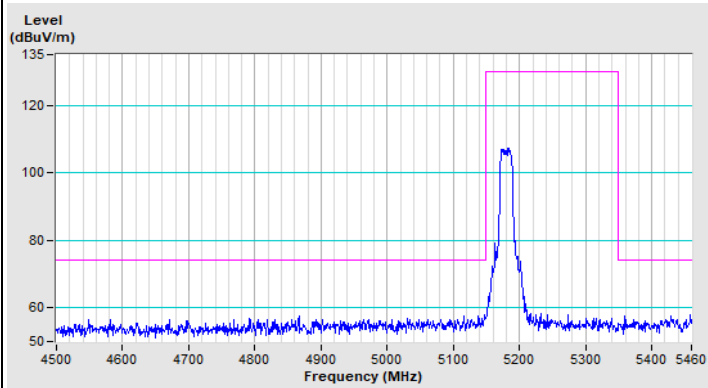
802.11a Channel 36



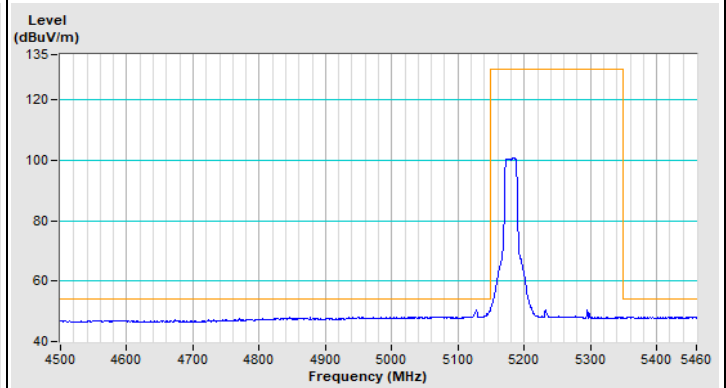
Horizontal (Peak)



Horizontal (Average)

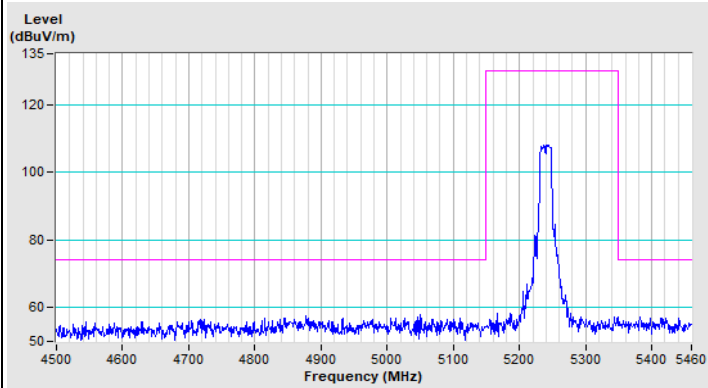


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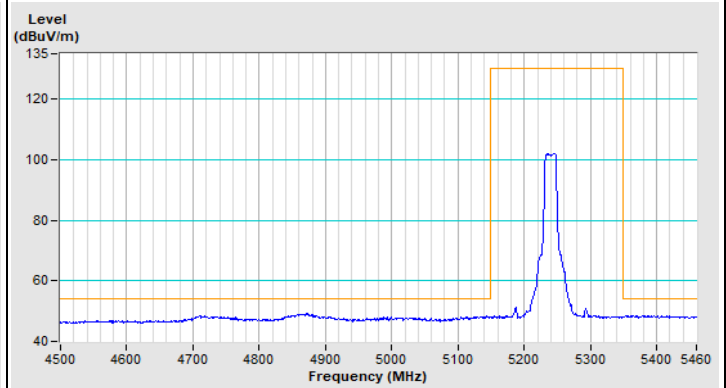


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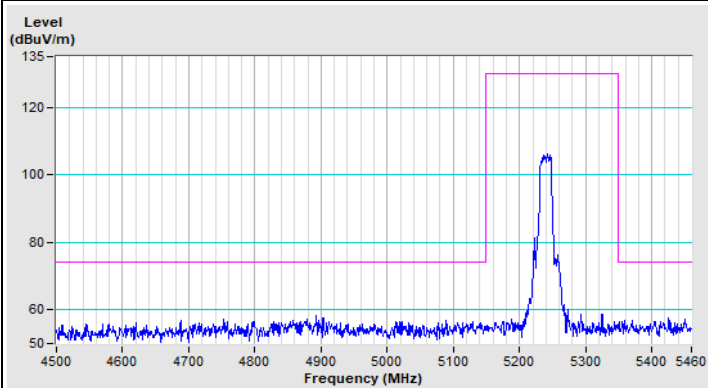
802.11a Channel 48



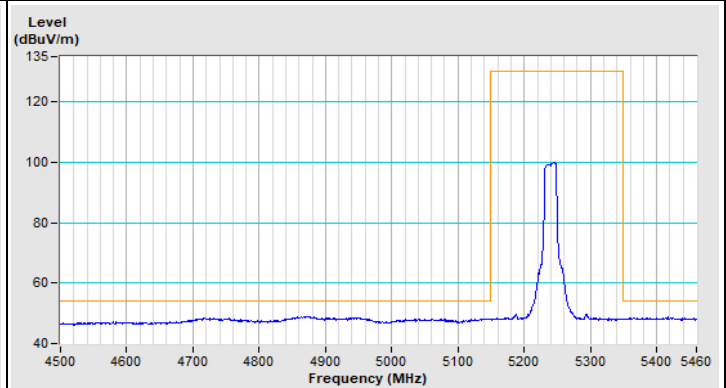
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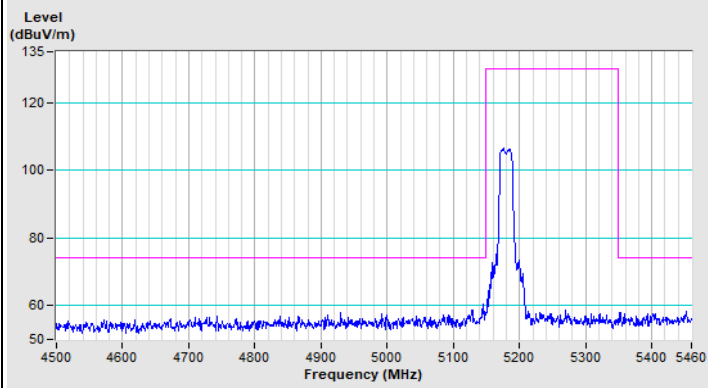


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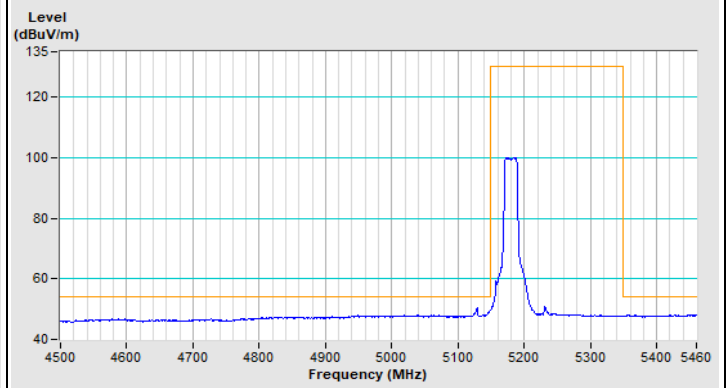


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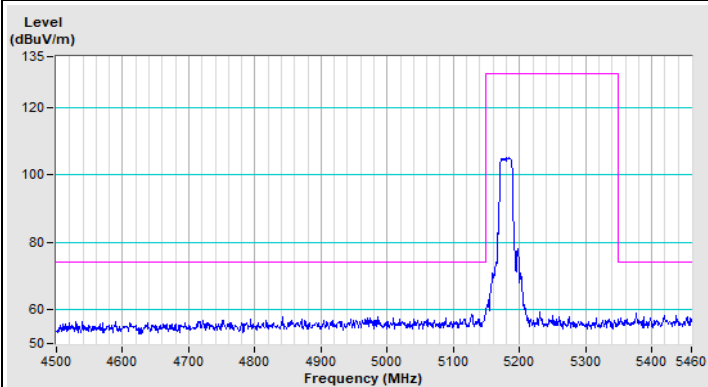
802.11n (HT20) Channel 36



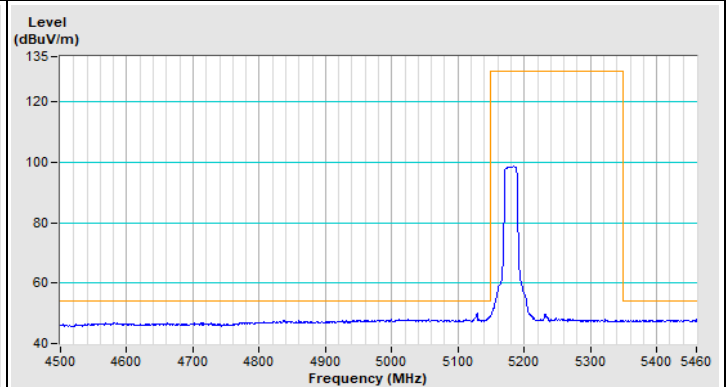
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Horizontal (Average)

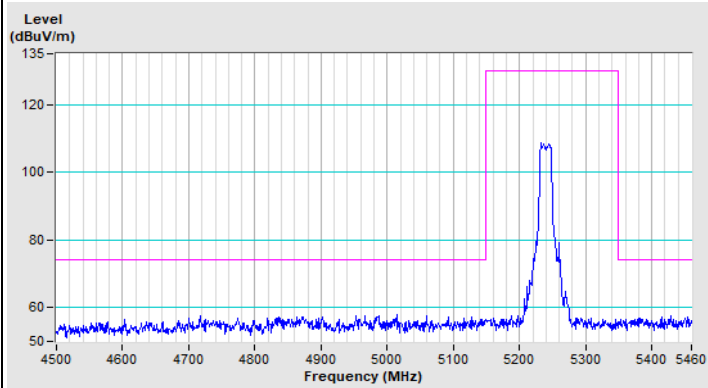


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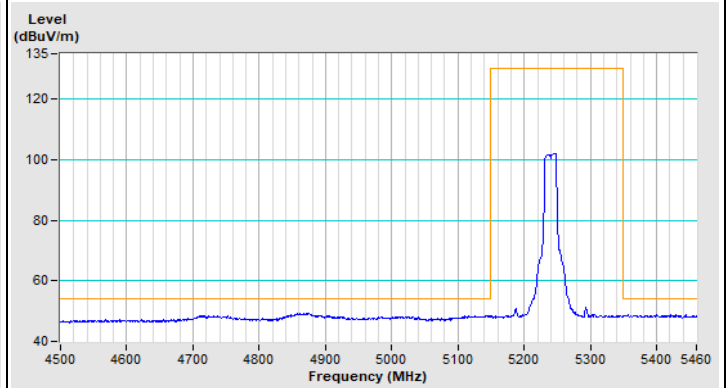


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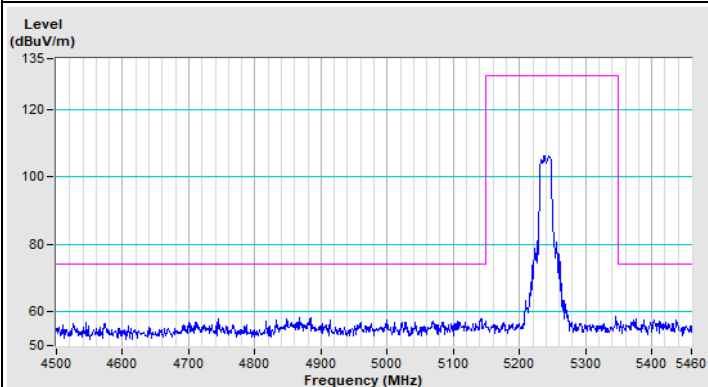
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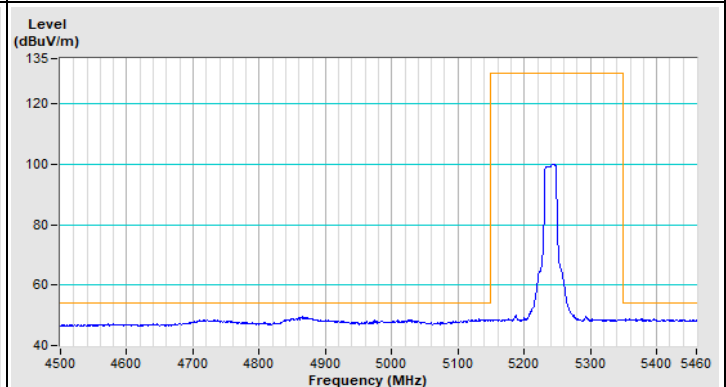
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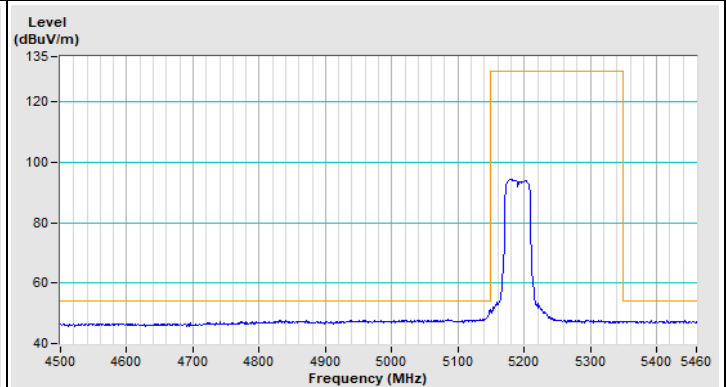
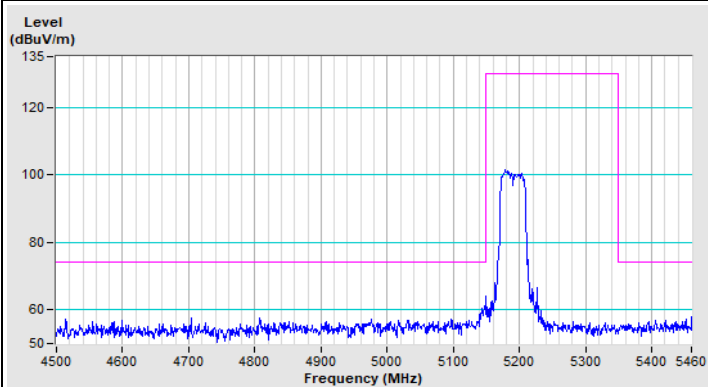
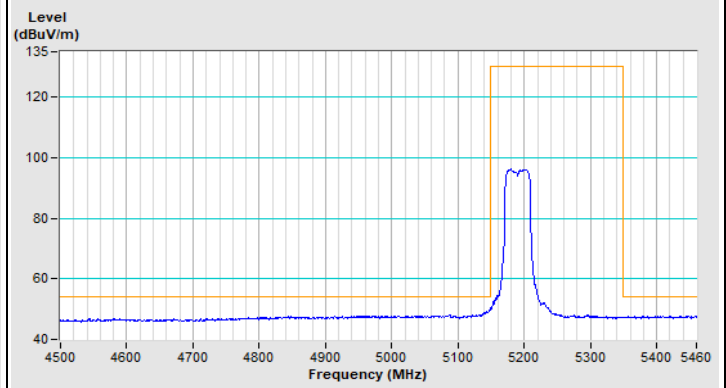
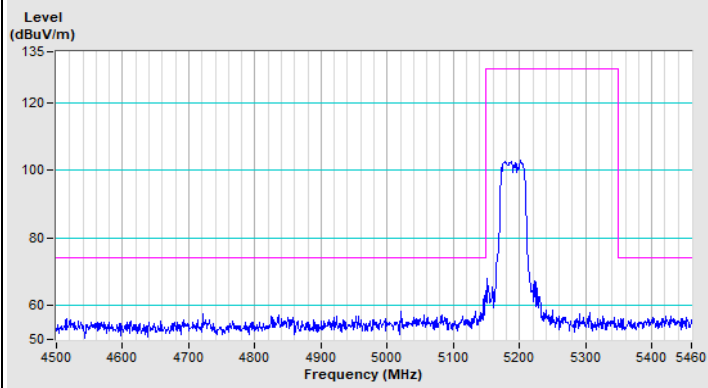


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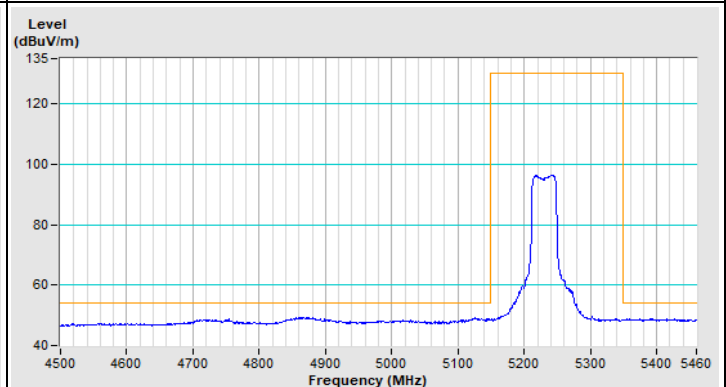
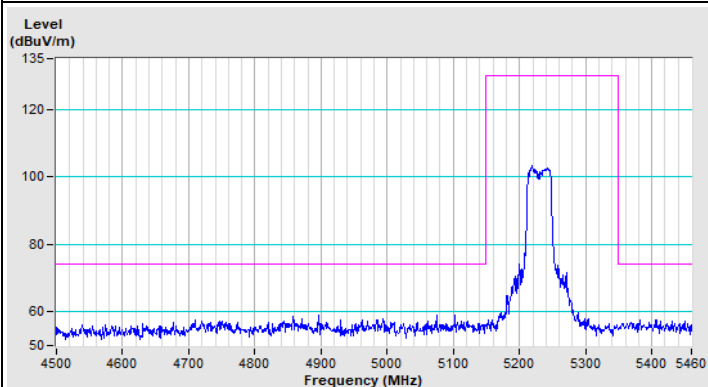
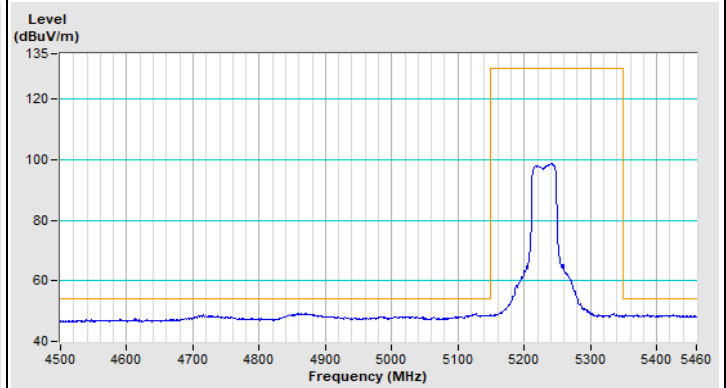
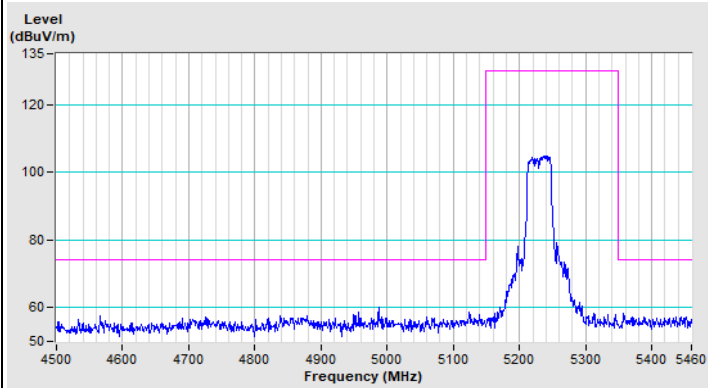


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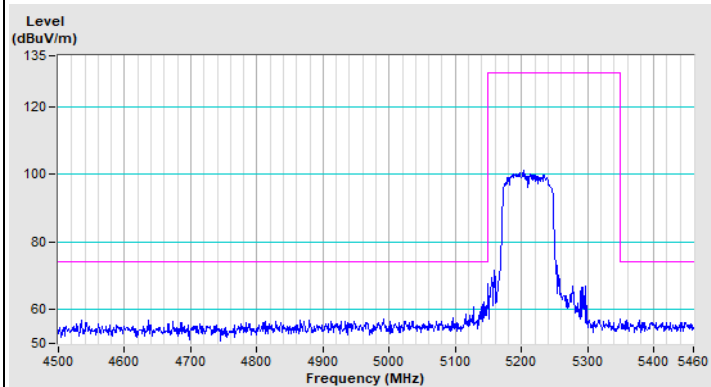
802.11n (HT40) Channel 38



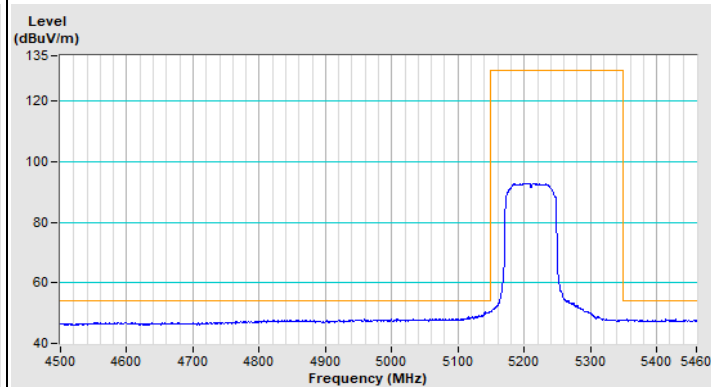
802.11n (HT40) Channel 46



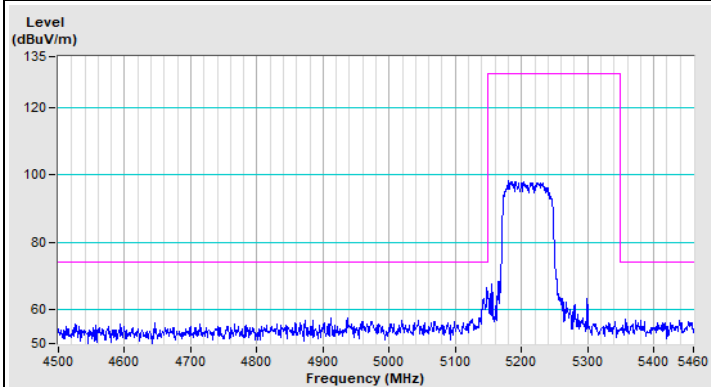
802.11ac (VHT80) Channel 42



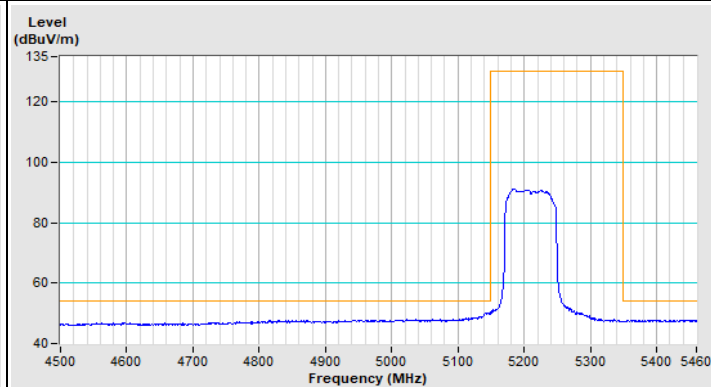
Horizontal (Peak)



Horizontal (Average)

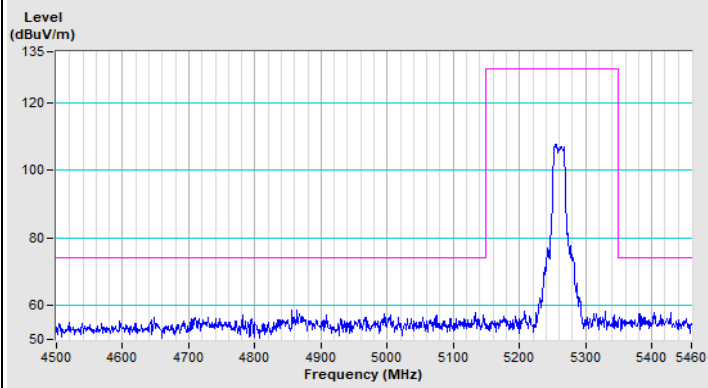


Vertical (Peak)

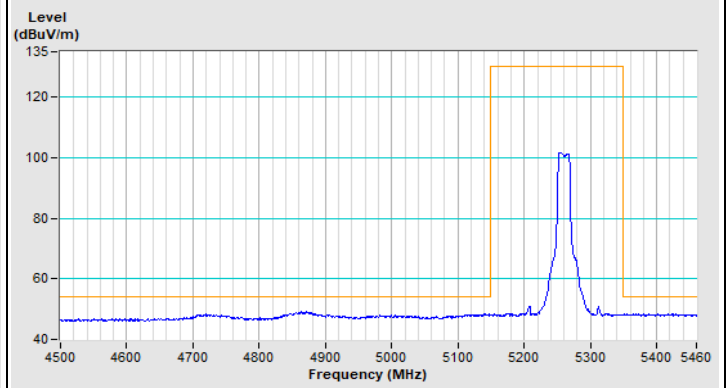


Vertical (Average)

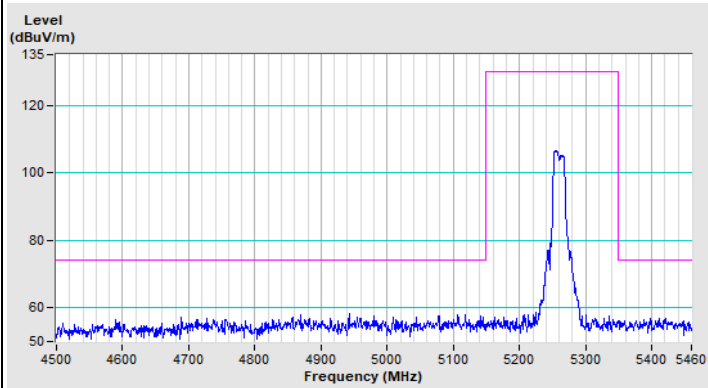
802.11a Channel 52



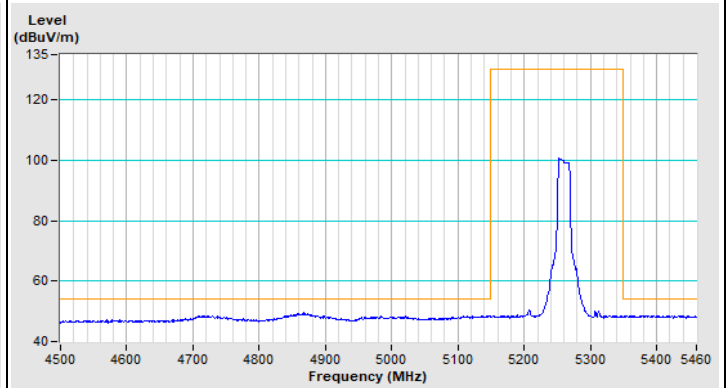
Horizontal (Peak)



Horizontal (Average)

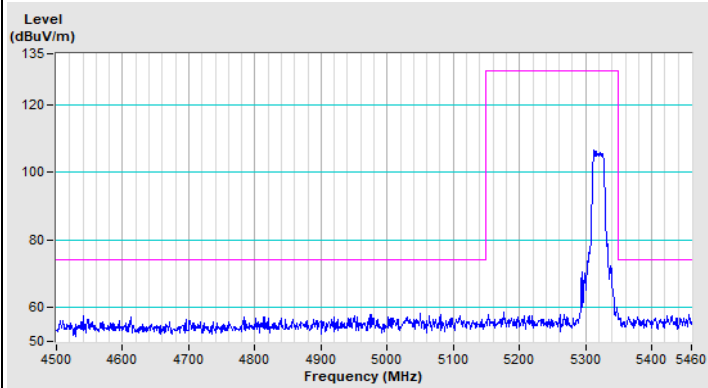


Vertical (Peak)

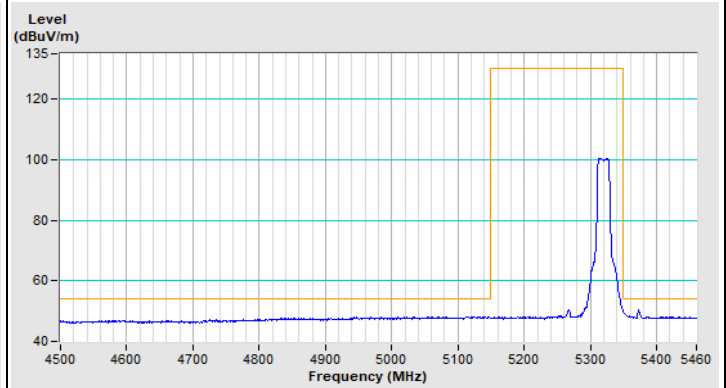


Vertical (Average)

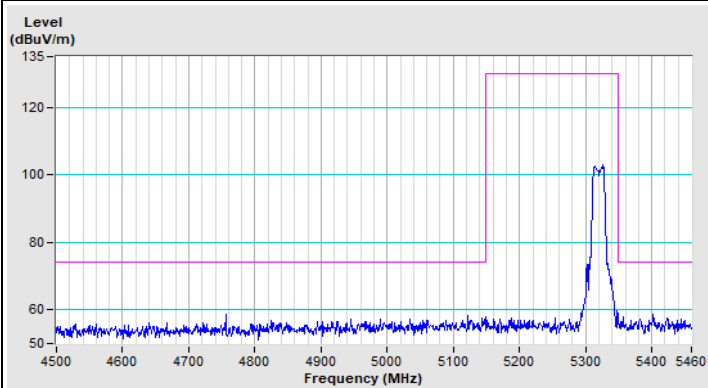
802.11a Channel 64



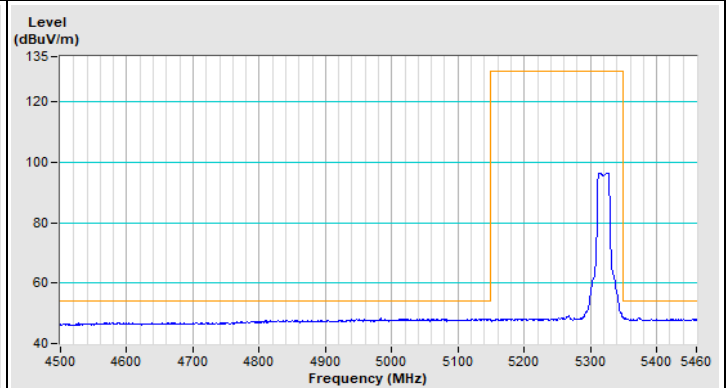
Horizontal (Peak)



Horizontal (Average)

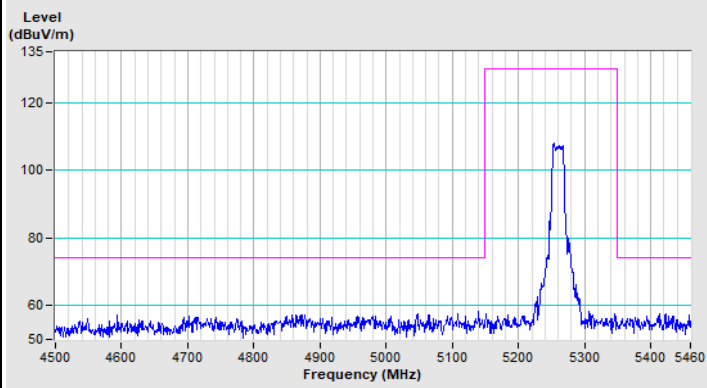


Vertical (Peak)

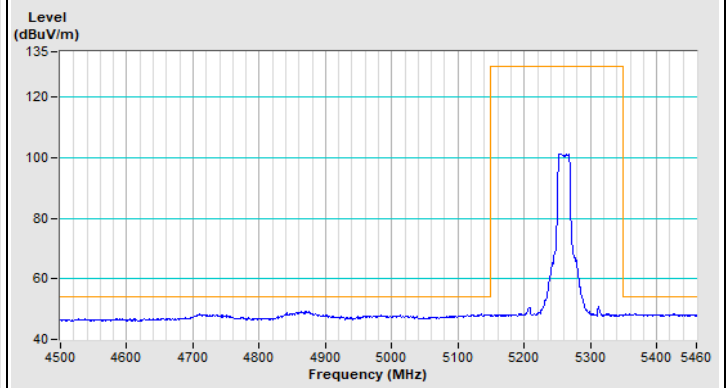


Vertical (Average)

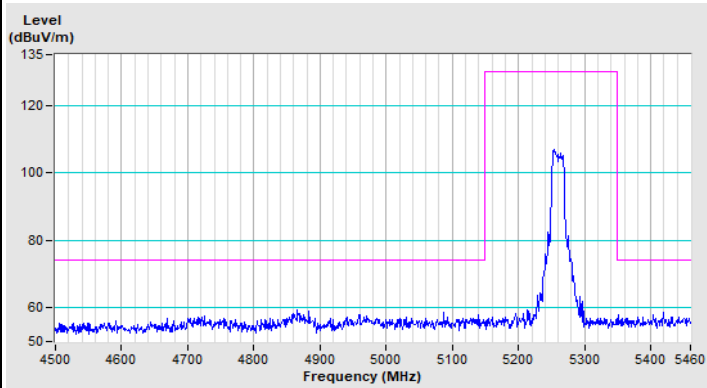
802.11n (HT20) Channel 52



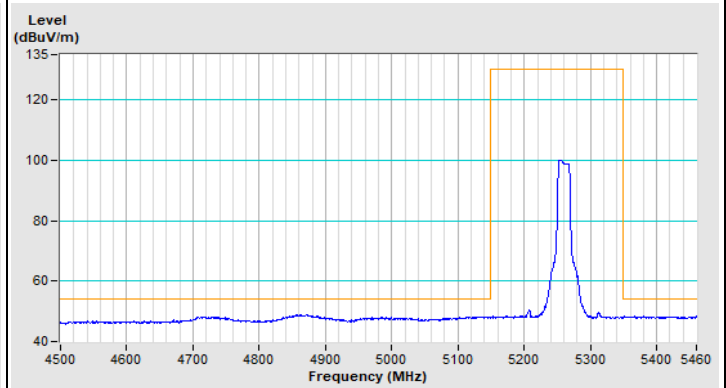
Horizontal (Peak)



Horizontal (Average)

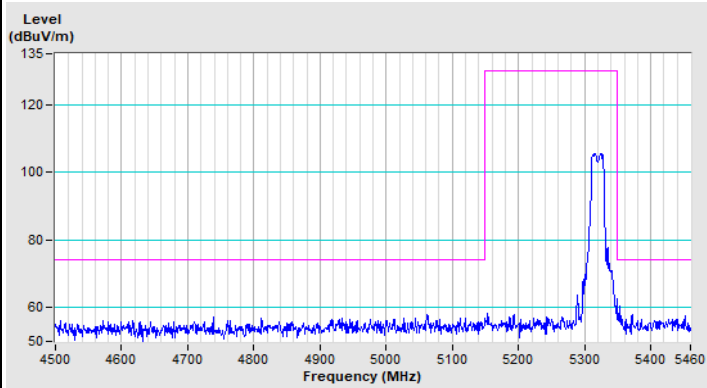


Vertical (Peak)

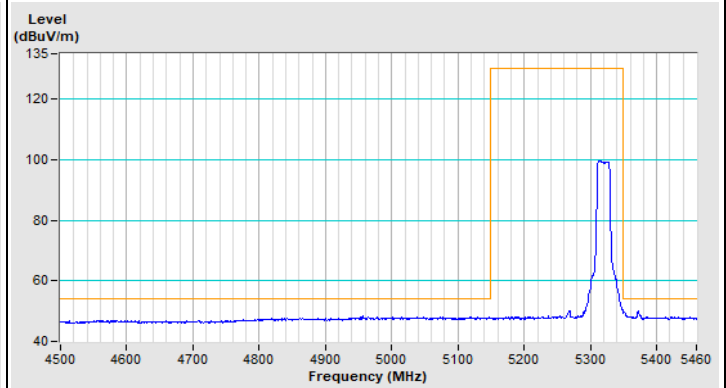


Vertical (Average)

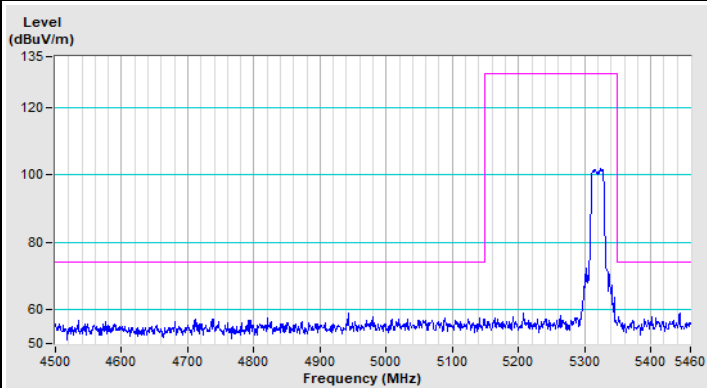
802.11n (HT20) Channel 64



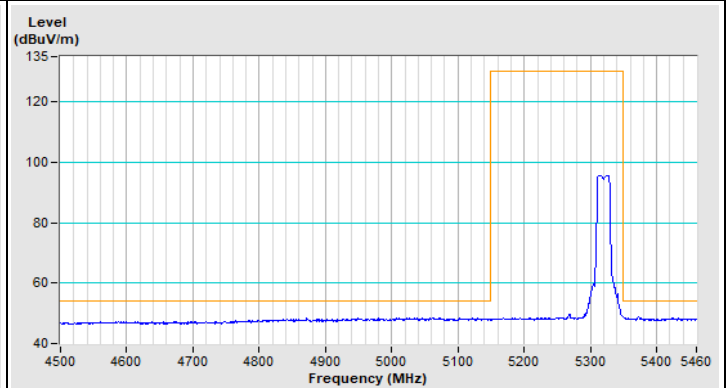
Horizontal (Peak)



Horizontal (Average)

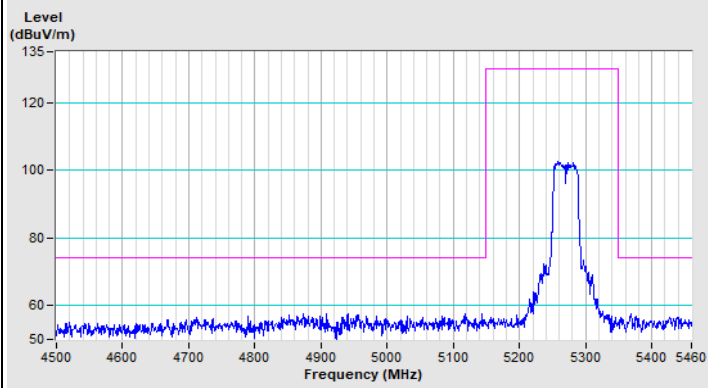


Vertical (Peak)

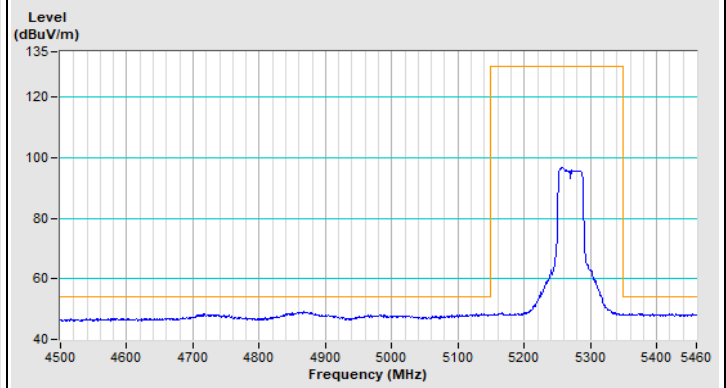


Vertical (Average)

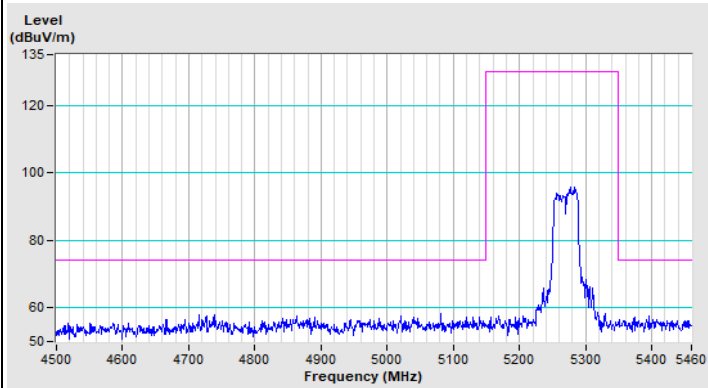
802.11n (HT40) Channel 54



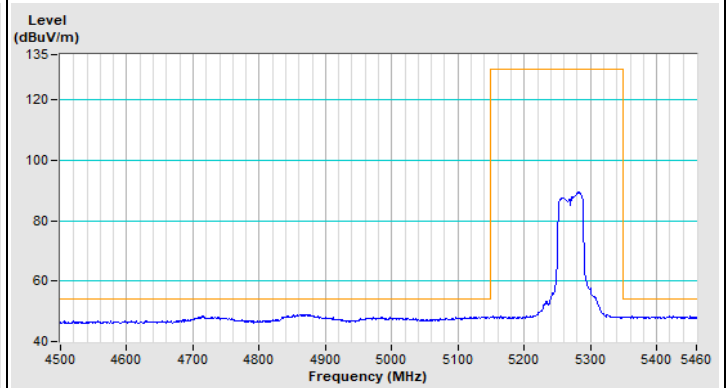
Horizontal (Peak)



Horizontal (Average)

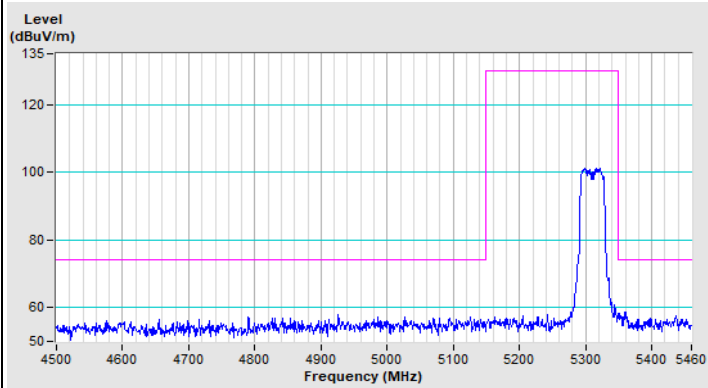


Vertical (Peak)

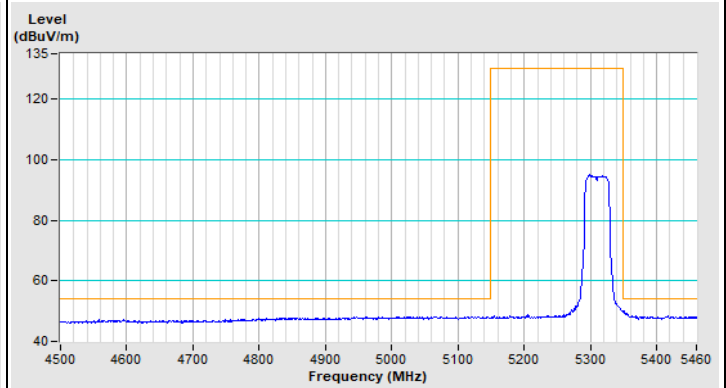


Vertical (Average)

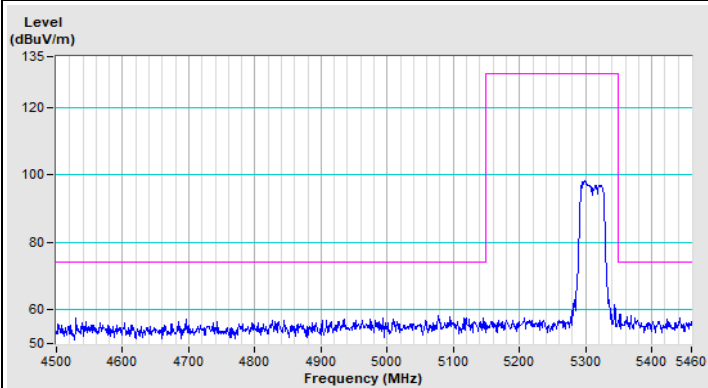
802.11n (HT40) Channel 62



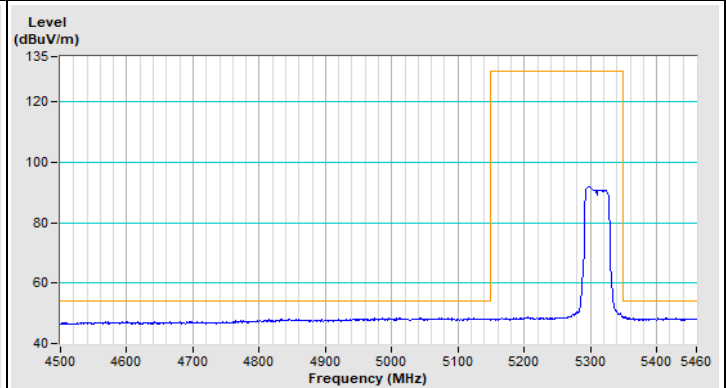
Horizontal (Peak)



Horizontal (Average)

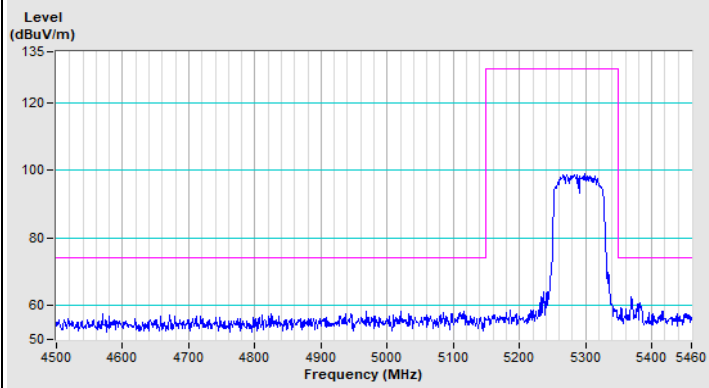


Vertical (Peak)

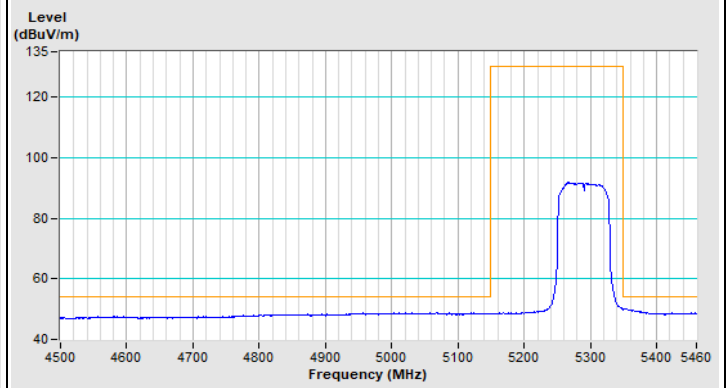


Vertical (Average)

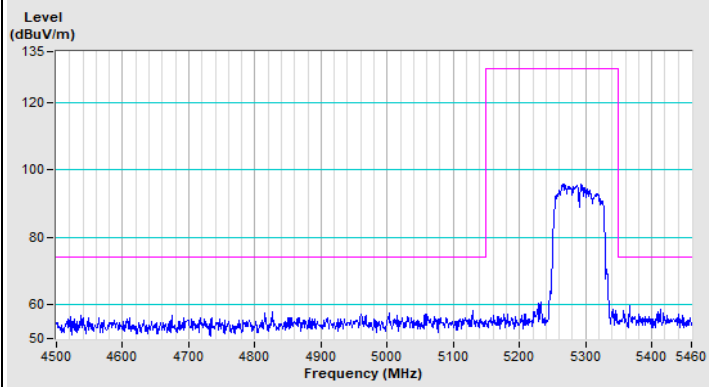
802.11ac (VHT80) Channel 58



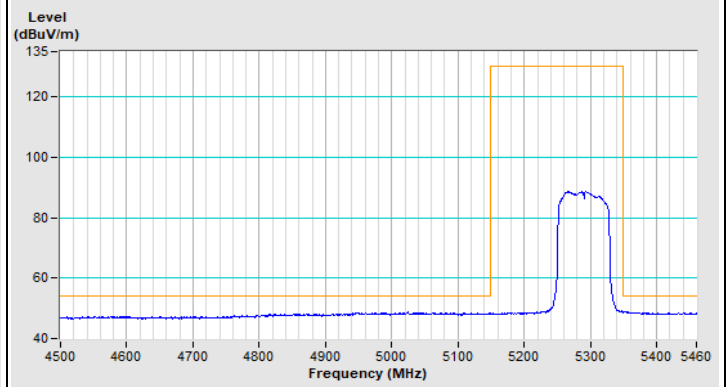
Horizontal (Peak)



Horizontal (Average)

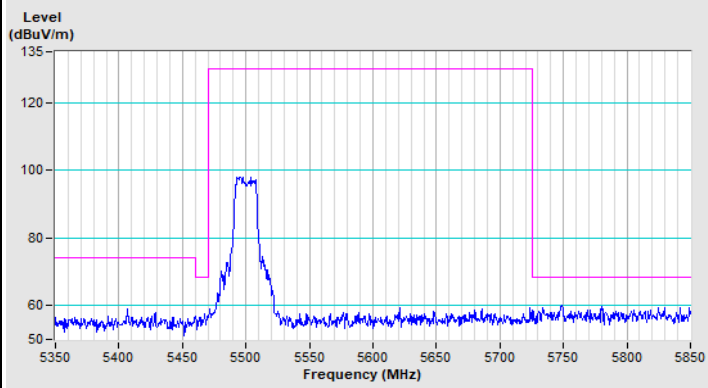


Vertical (Peak)

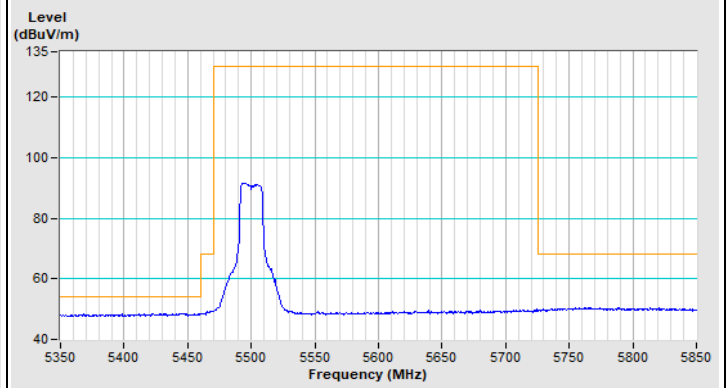


Vertical (Average)

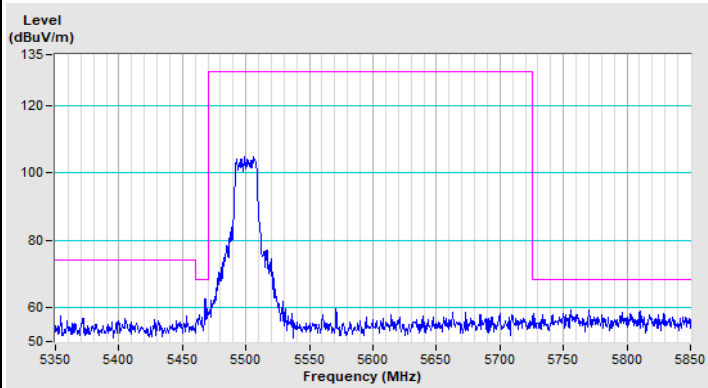
802.11a Channel 100



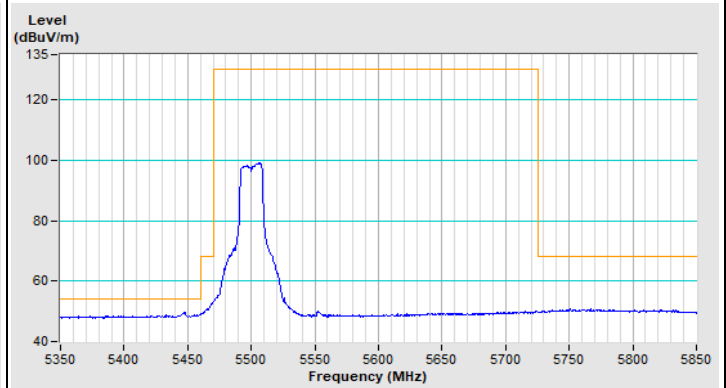
Horizontal (Peak)



Horizontal (Average)

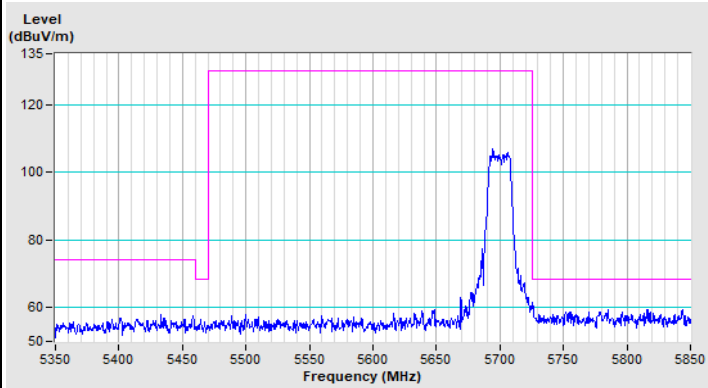


Vertical (Peak)

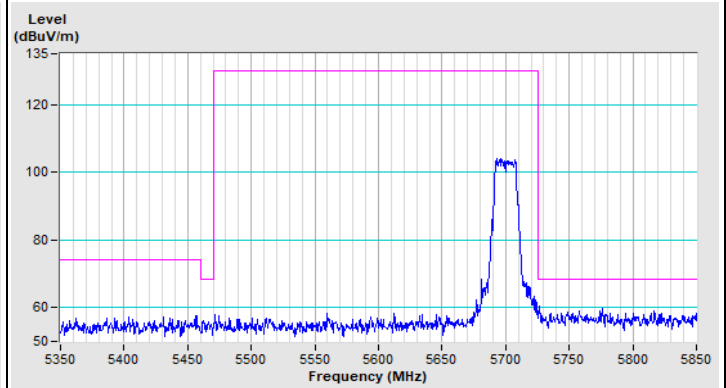


Vertical (Average)

802.11a Channel 140

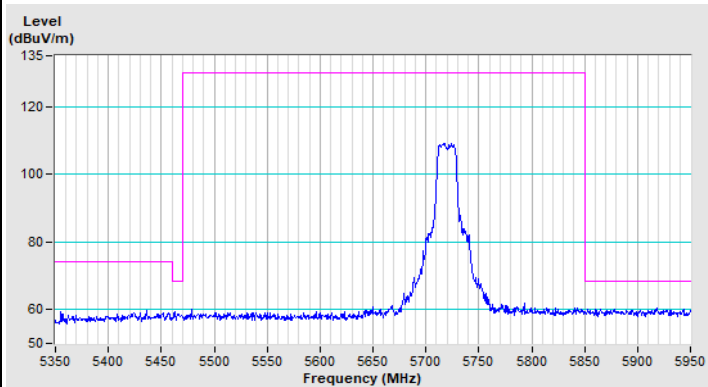


Horizontal (Peak)

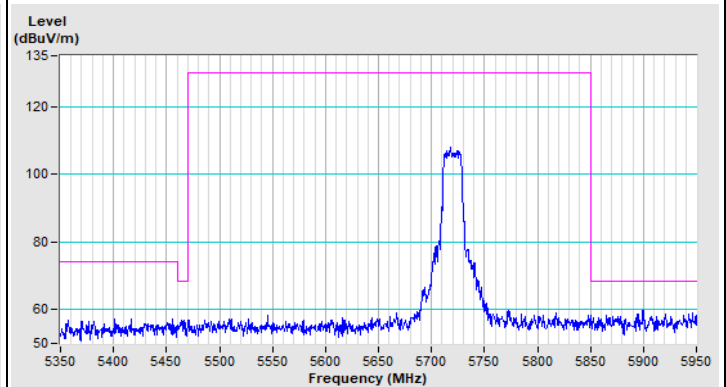


Vertical (Peak)

802.11a Channel 144

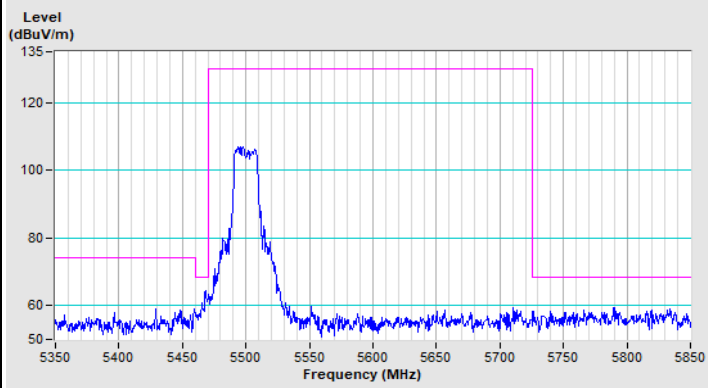


Horizontal (Peak)

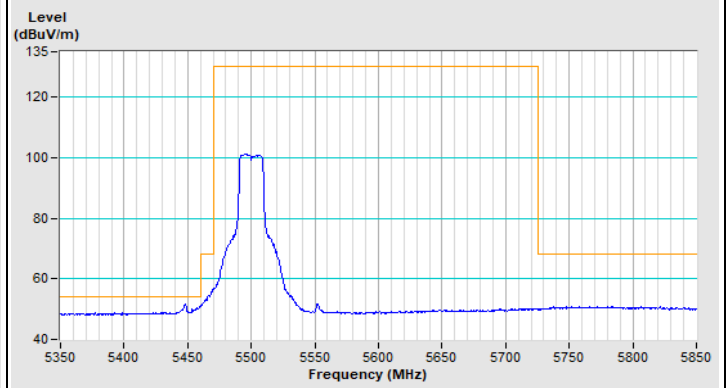


Vertical (Peak)

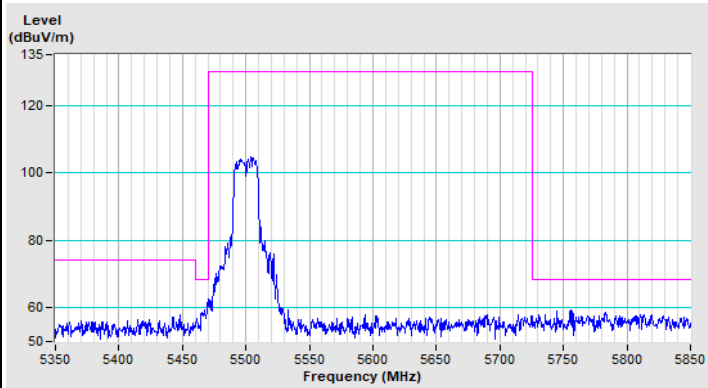
802.11n (HT20) Channel 100



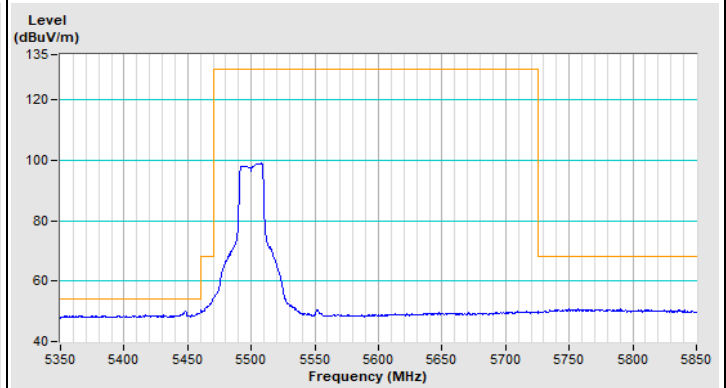
Horizontal (Peak)



Horizontal (Average)

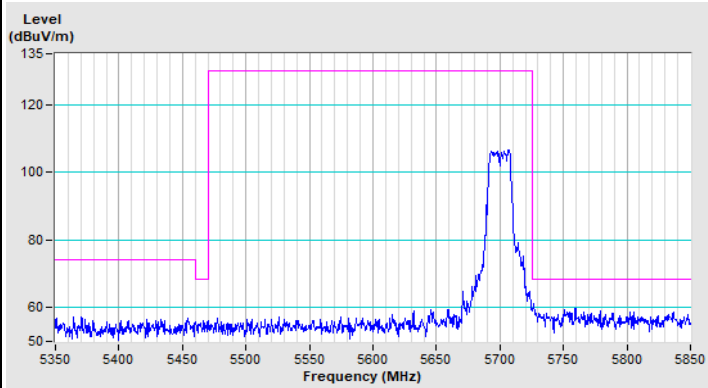


Vertical (Peak)

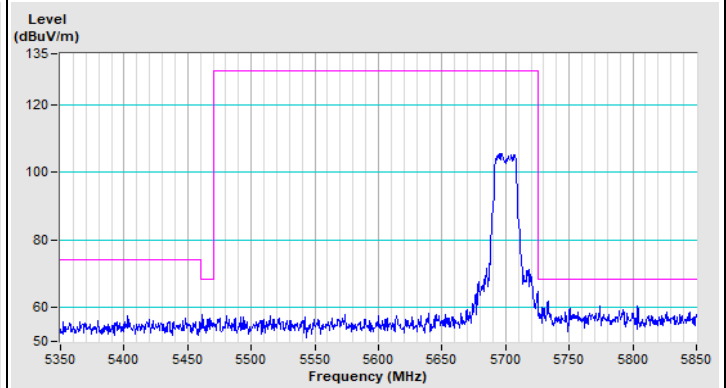


Vertical (Average)

802.11n (HT20) Channel 140

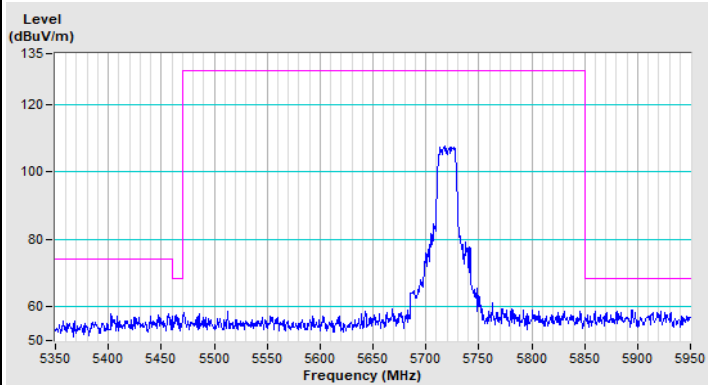


Horizontal (Peak)

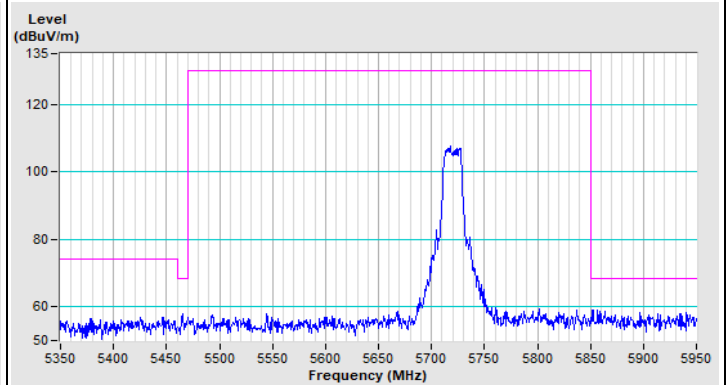


Vertical (Peak)

802.11n (HT20) Channel 144

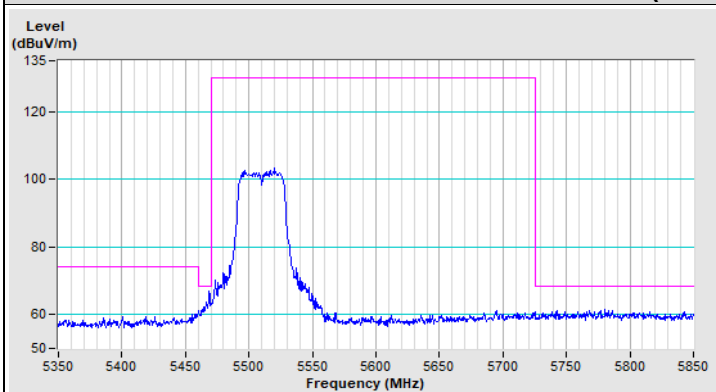


Horizontal (Peak)

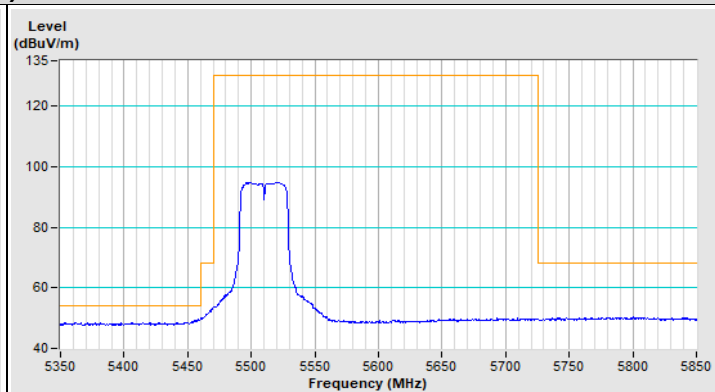


Vertical (Peak)

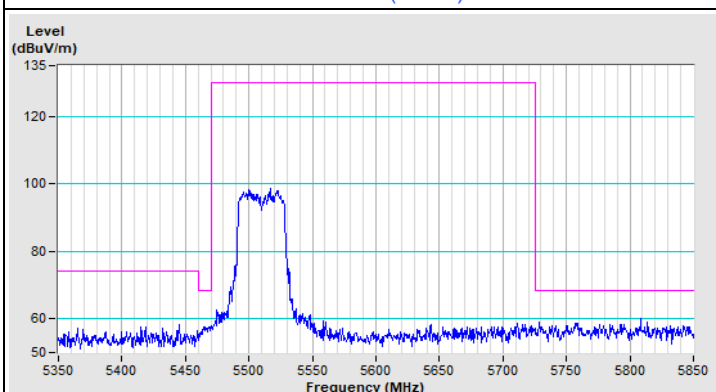
802.11n (HT40) Channel 102



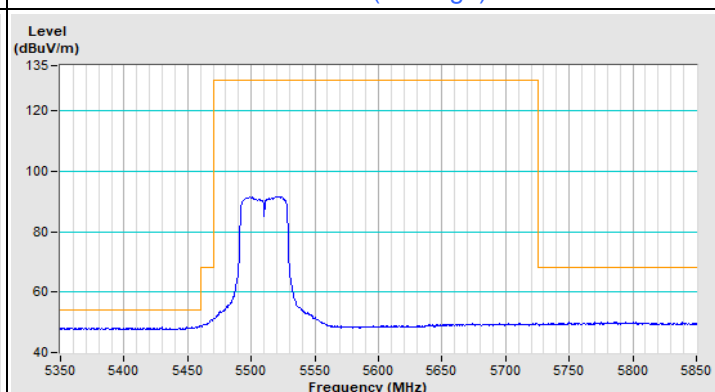
Horizontal (Peak)



Horizontal (Average)

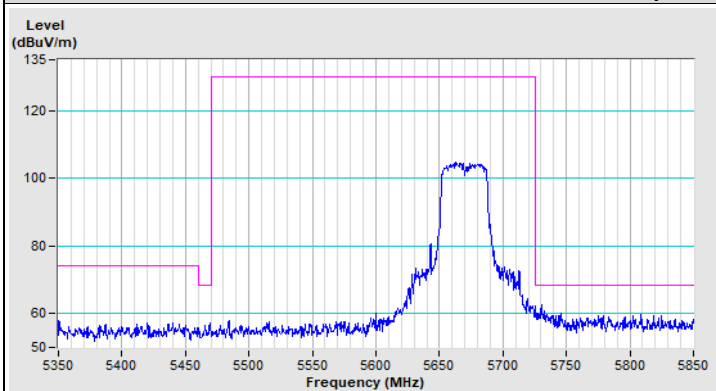


Vertical (Peak)

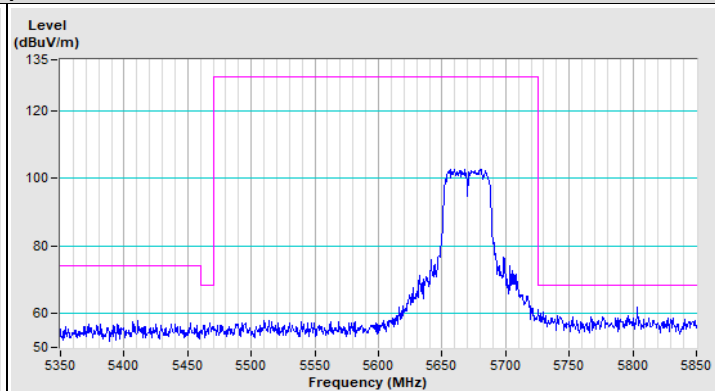


Vertical (Average)

802.11n (HT40) Channel 134

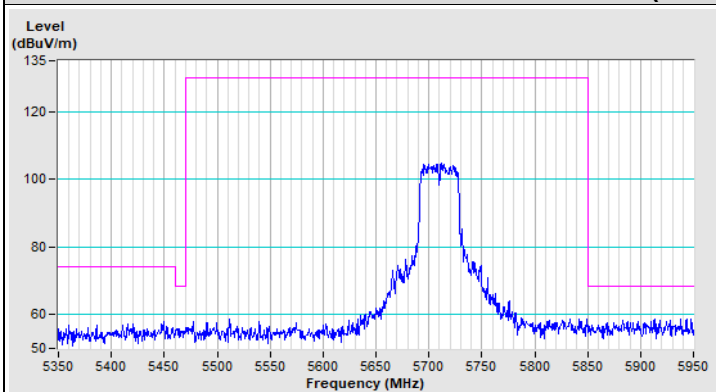


Horizontal (Peak)

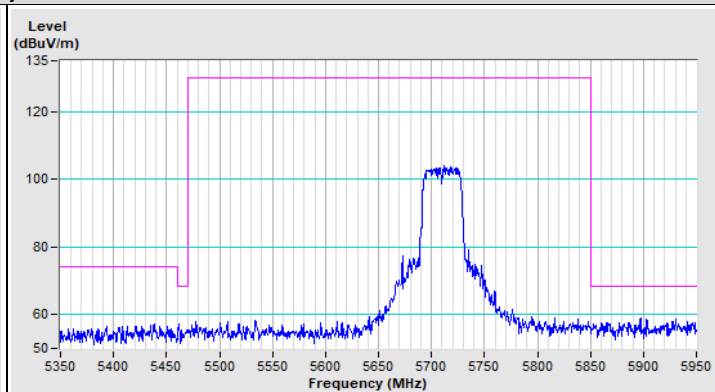


Vertical (Peak)

802.11n (HT40) Channel 142

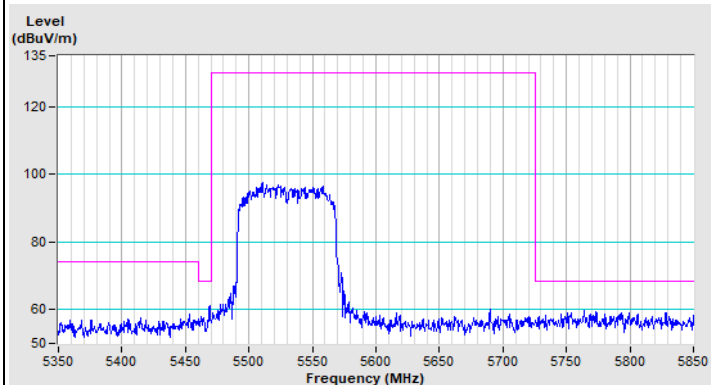


Horizontal (Peak)

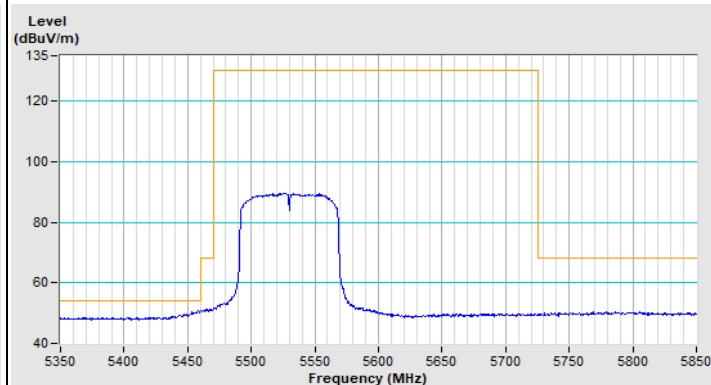


Vertical (Peak)

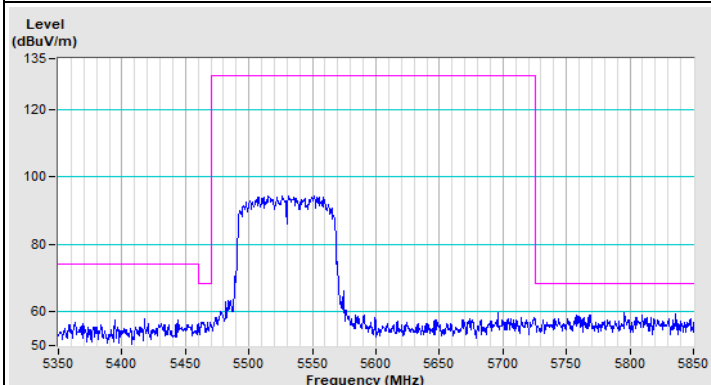
802.11ac (VHT80) Channel 106



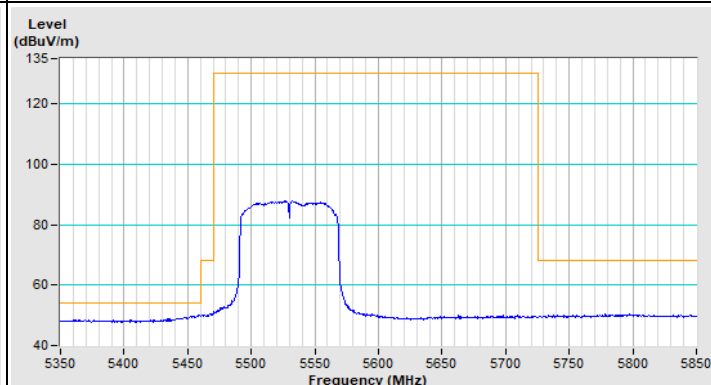
Horizontal (Peak)



Horizontal (Average)

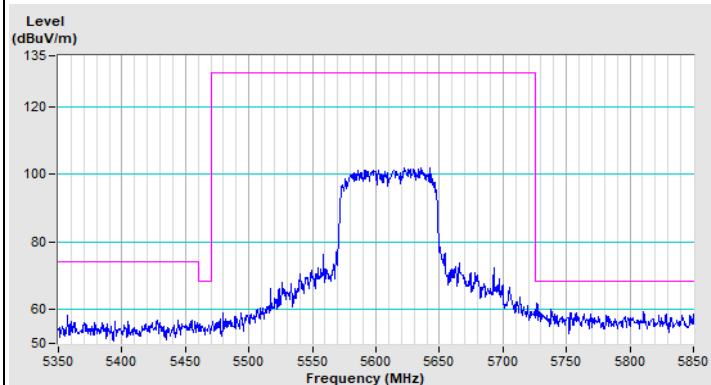


Vertical (Peak)

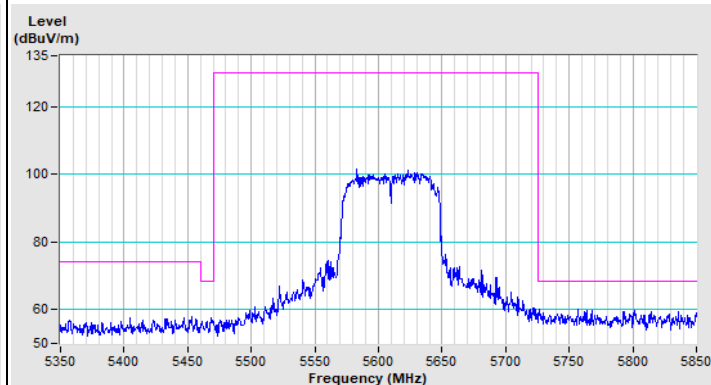


Vertical (Average)

802.11ac (VHT80) Channel 122

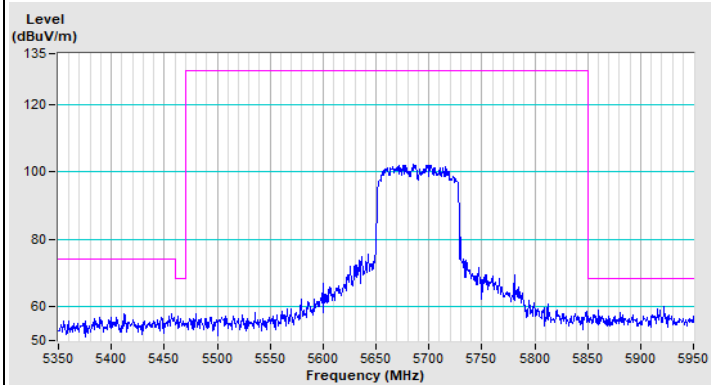


Horizontal (Peak)

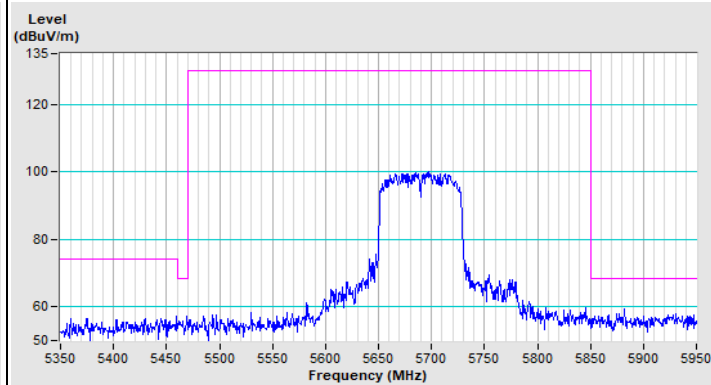


Vertical (Peak)

802.11ac (VHT80) Channel 138

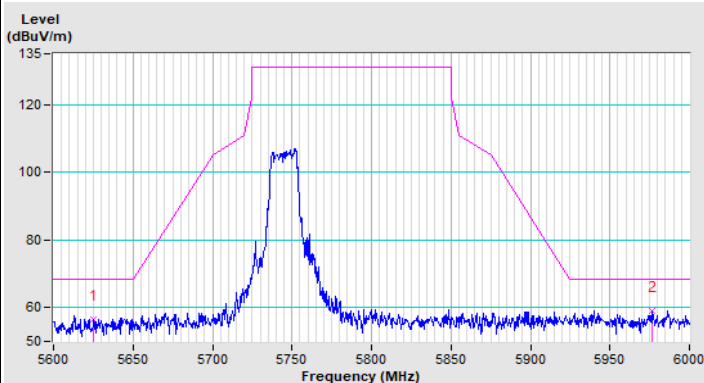
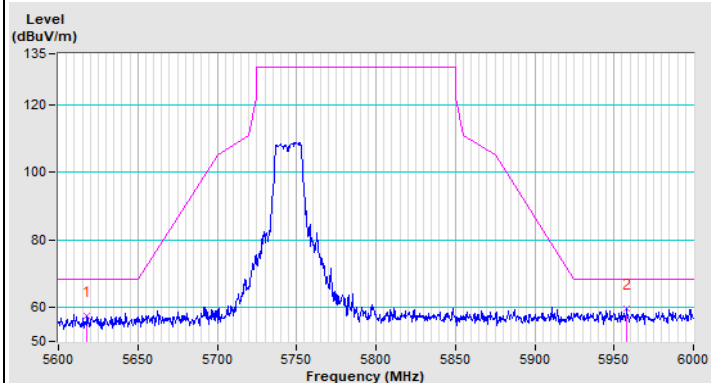


Horizontal (Peak)

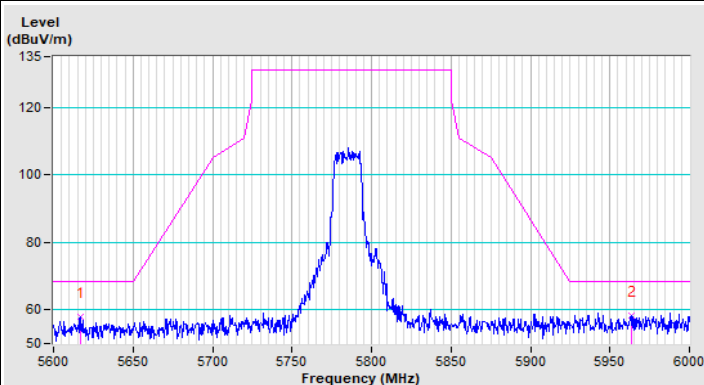
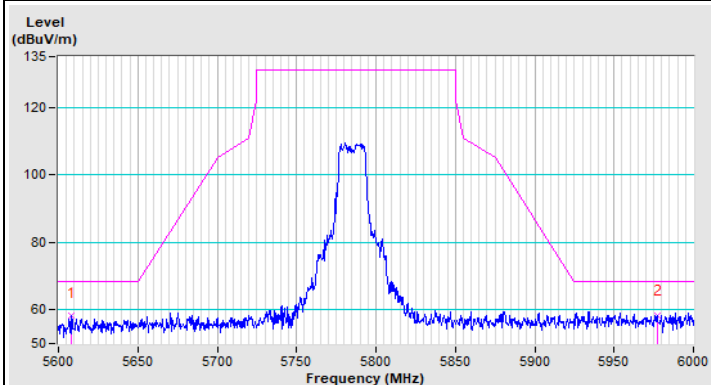


Vertical (Peak)

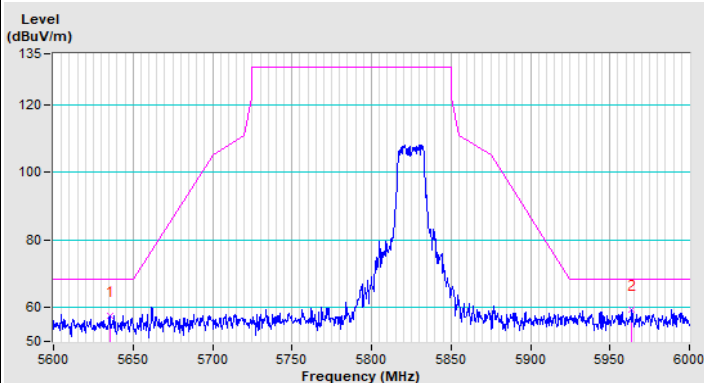
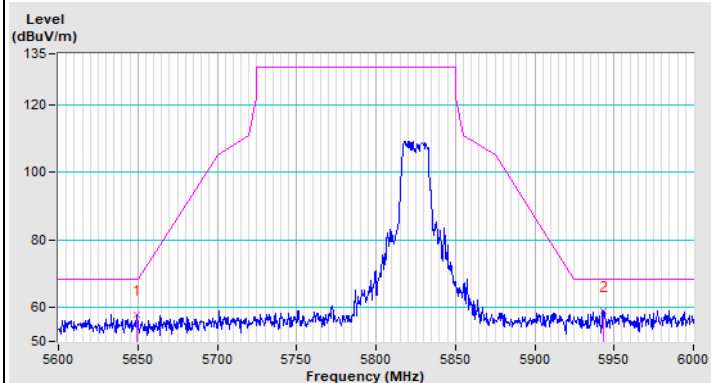
802.11a Channel 149



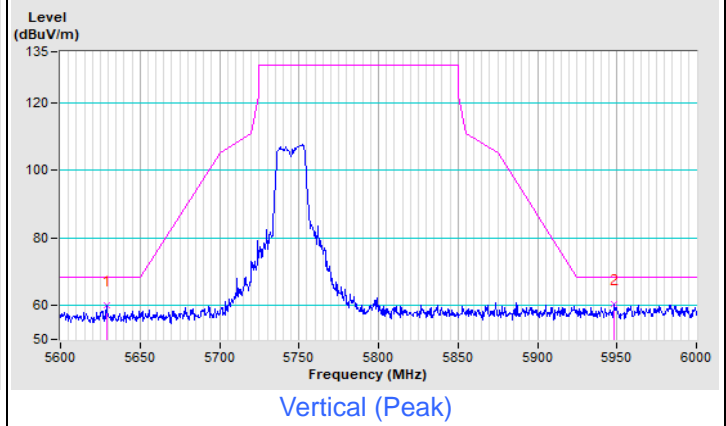
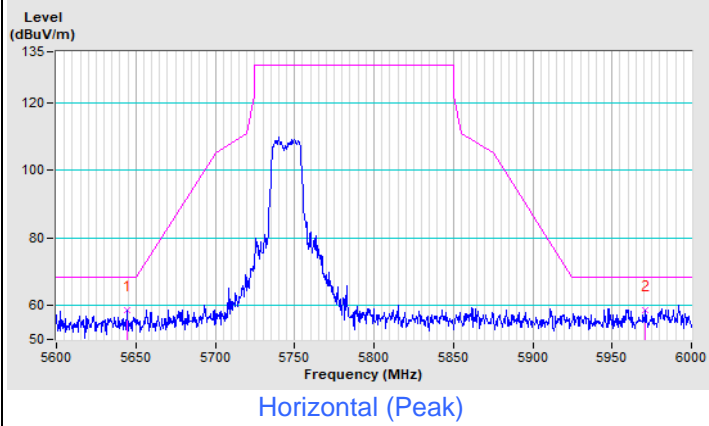
802.11a Channel 157



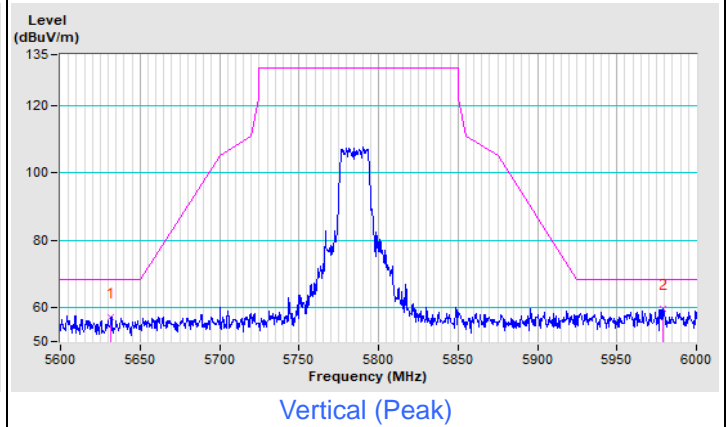
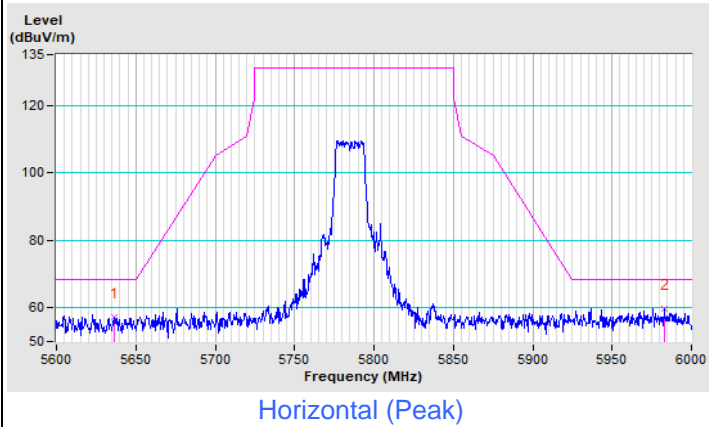
802.11a Channel 165



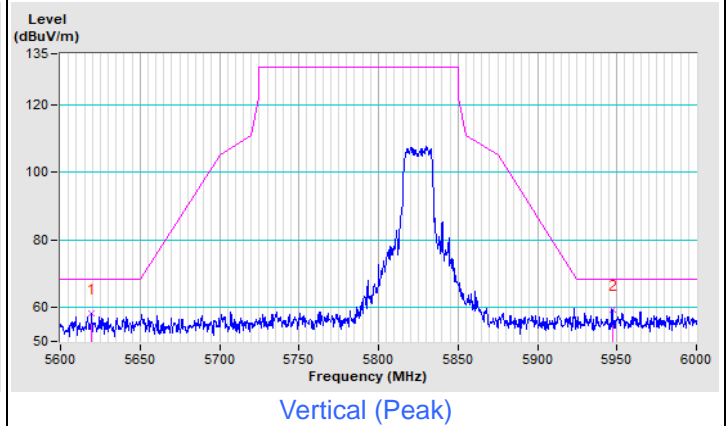
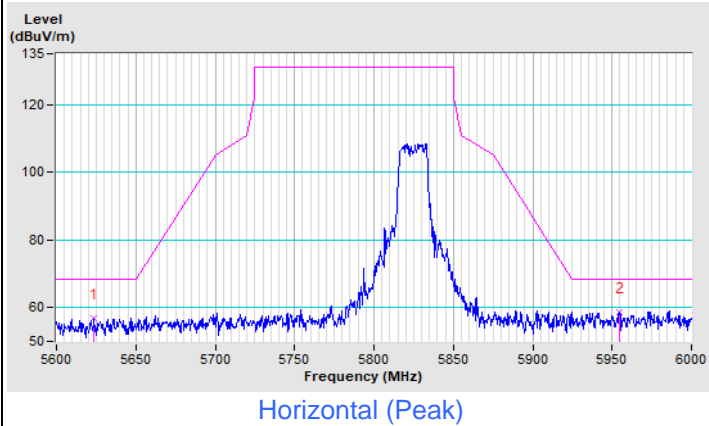
802.11n (HT20) Channel 149



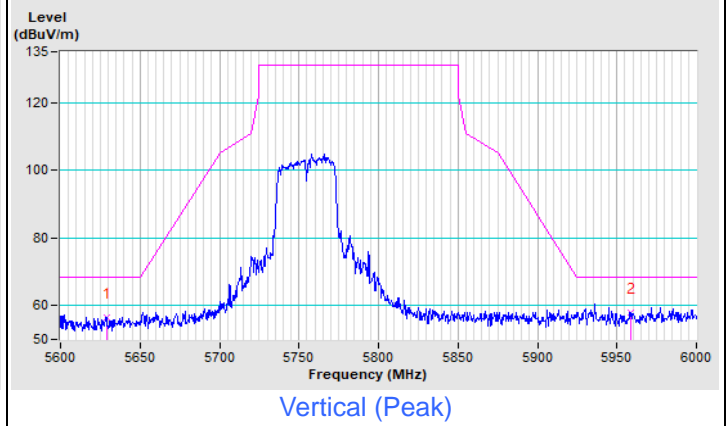
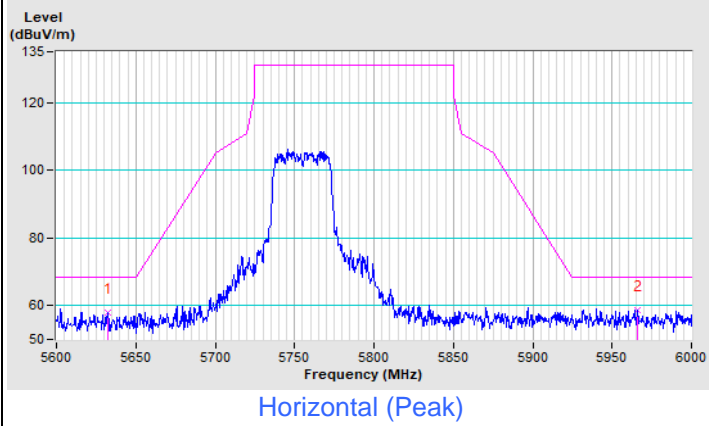
802.11n (HT20) Channel 157



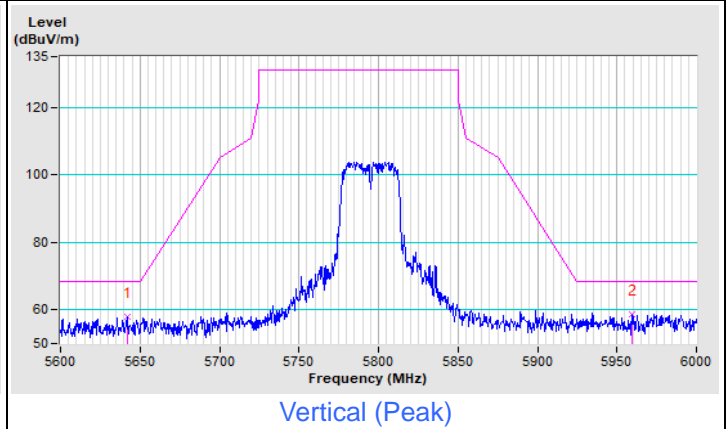
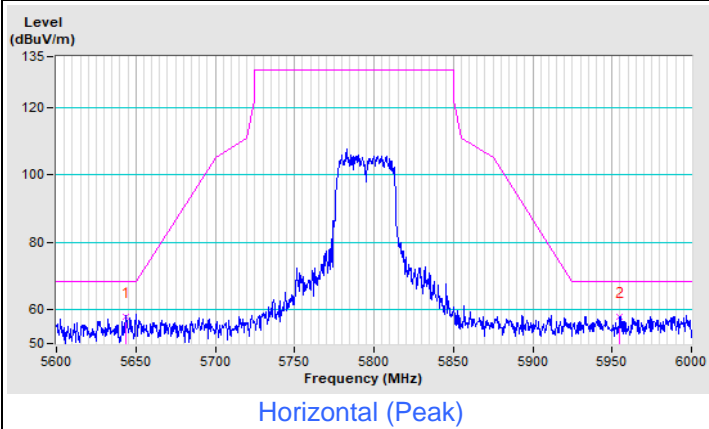
802.11n (HT20) Channel 165



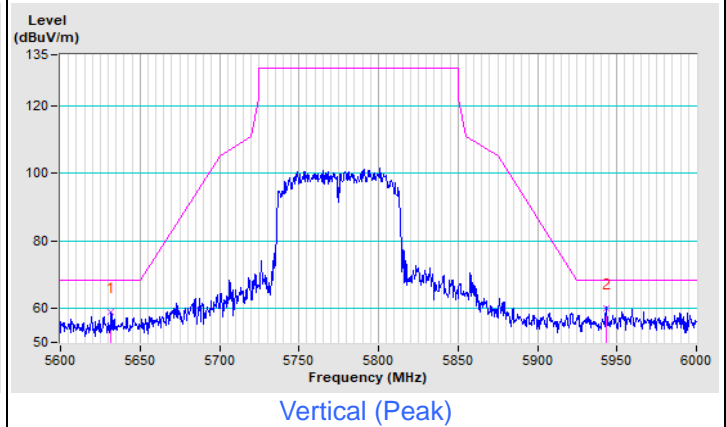
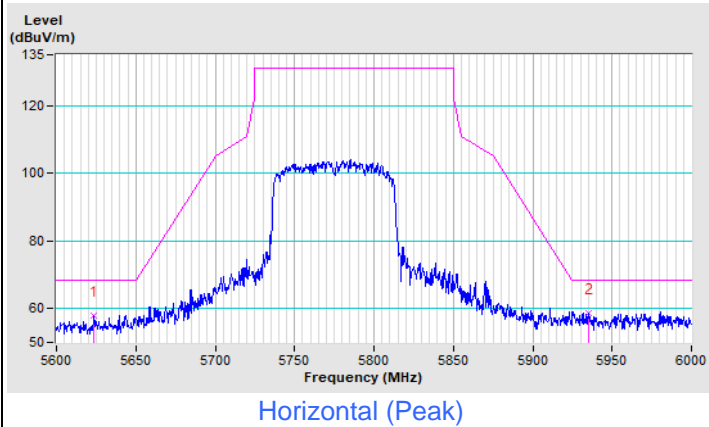
802.11n (HT40) Channel 151



802.11n (HT40) Channel 159



802.11ac (VHT80) Channel 155



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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

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

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