TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBEOP-WTW-P22030407B-1
FCC ID:	NKR-LS041
Product:	home security gateway
Brand:	ADT
Model No.:	S501R0-01
Received Date:	2024/8/29
Test Date:	2024/11/5 ~ 2024/11/12
Issued Date:	2024/12/9
Applicant:	Wistron NeWeb Corporation
Address:	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location(1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
Test Location(2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003 for Test Location(1) 281270 / TW0032 for Test Location(2)

Approved by: Jeremy Lin , **Date:** 2024/12/9

Jeremy Lin / Project Engineer

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Prepared by : Celine Chou / Senior Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBEOP-WTW-P22030407B-1	Original release.	2024/12/9

1 Certificate

Product:	home security gateway
Brand:	ADT
Test Model:	S501R0-01
Sample Status:	Mass product
Applicant:	Wistron NeWeb Corporation
Test Date:	2024/11/5 ~ 2024/11/12
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 789033 D02 General UNII Test Procedure New Rules v02r01 KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	-	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(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.01 dB at 0.44600 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -10.6 dB at 178.41 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 -0.5 dB at 5150.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

Notes:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The “Dynamic Frequency Selection measurement” was recorded in DFS test report.

2.1 Measurement Uncertainty

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

Parameter	Specification	Uncertainty (±)
26 dB Bandwidth	-	206.5 Hz
RF Output Power	-	1.371 dB
Power Spectral Density	-	1.017 dB
6 dB Bandwidth	-	206.5 Hz
Occupied Bandwidth	-	72 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.00 dB
	30 MHz ~ 1 GHz	2.92 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	home security gateway
Brand	ADT
Test Model	S501R0-01
Status of EUT	Mass product
Power Supply Rating	12 Vdc from adapter 3.65 Vdc from battery
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps
Operating Frequency	5.18 GHz ~ 5.24 GHz 5.26 GHz ~ 5.32 GHz 5.50 GHz ~ 5.72 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20): 25 802.11n (HT40), 802.11ac (VHT40): 12 802.11ac (VHT80): 6
Output Power	5.18 GHz ~ 5.24 GHz : 228.851 mW (23.60 dBm) 5.26 GHz ~ 5.32 GHz : 203.56 mW (23.09 dBm) 5.50 GHz ~ 5.72 GHz : 241.419 mW (23.83 dBm) 5.745 GHz ~ 5.825 GHz : 332.311 mW (25.22 dBm)
EUT Category	Client device

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
Battery	TENEGRY	34262	Power Rating : Output: 3.65 Vdc, 2400 mAh
AC Adapter 1	ADT	1A101-1215-01	AC Input : 100-120 Vac, 500 mA, 50-60 Hz DC Output : 12 Vdc, 1.5 A DC Output Cable : 1.5 m cable without core attached on adapter
AC Adapter 2	ADT	ML18-S120150-A1	AC Input : 100-120 Vac, 500 mA, 50-60 Hz DC Output : 12 Vdc, 1.5 A DC Output Cable : 1.5 m cable without core attached on adapter

* Adapter 1 was chosen for final test and presented in the test report.

2. The EUT contains certified LTE module (Brand: Telit, Model: LE910C1-WWXD, FCC ID: RI7LE910CXWWX).

3. Simultaneously transmission condition.

Condition	Technology
1	WLAN 2.4G + BLE + Z-wave + DECT + WWAN
2	WLAN 5G + BLE + Z-wave + DECT + WWAN
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.	

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	Brand	Model	Antenna Gain (dBi)	Frequency Range	Antenna Type	Connector Type
WIFI1	WNC	LS04	5.19	2.4~2.4835GHz	Dipole	ipex(MHF)
			5.36	5.15~5.25GHz	Dipole	ipex(MHF)
			4.68	5.25~5.35GHz	Dipole	ipex(MHF)
			4.22	5.47~5.725GHz	Dipole	ipex(MHF)
			4.83	5.725~5.85GHz	Dipole	ipex(MHF)
WIFI2	WNC	LS04	4.05	2.4~2.4835GHz	Dipole	ipex(MHF)
			5.56	5.15~5.25GHz	Dipole	ipex(MHF)
			5.36	5.25~5.35GHz	Dipole	ipex(MHF)
			5.54	5.47~5.725GHz	Dipole	ipex(MHF)
			5.52	5.725~5.85GHz	Dipole	ipex(MHF)

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

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz). Therefore the investigated worst case is the representative mode in test report.		

3.3 Channel List

FOR 5180 ~ 5320 MHz

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

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

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

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 ~ 5720 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 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), 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), 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), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	The EUT is designed to be positioned on the X-Plane only.

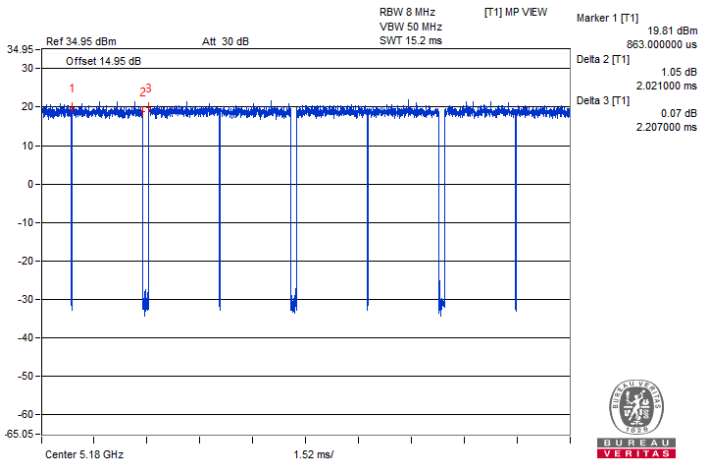
Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ac (VHT20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ac (VHT40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ac (VHT80)	CDD	58, 106, 122, 138	BPSK	MCS0
RF Output Power	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
Power Spectral Density	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
6 dB Bandwidth	802.11a	CDD	144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	CDD	144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD	142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD	138, 155	BPSK	MCS0

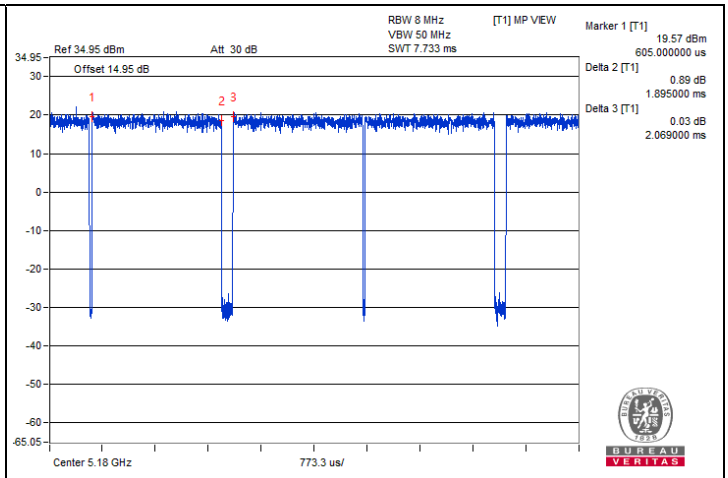
Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
Occupied Bandwidth	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0
AC Power Conducted Emissions	802.11ac (VHT20)	CDD	165	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ac (VHT20)	CDD	165	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11a	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	CDD	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	CDD	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	CDD	42, 58, 106, 122, 138, 155	BPSK	MCS0

3.5 Duty Cycle of Test Signal

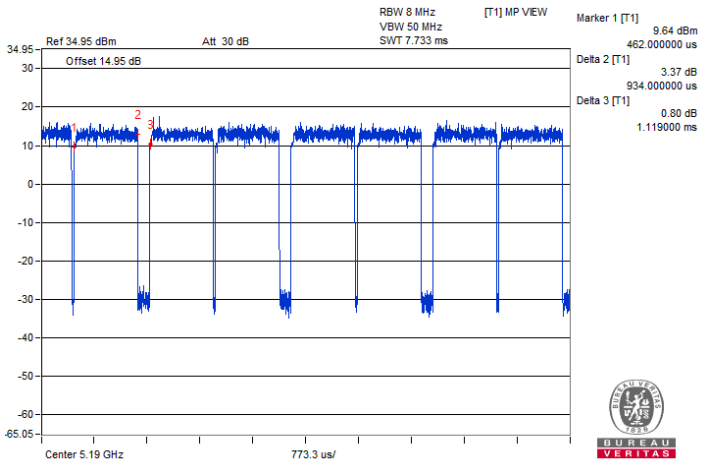
802.11a: Duty cycle = 2.021 ms / 2.207 ms x 100% = 91.6%, duty factor = 10 * log (1/Duty cycle) = 0.38 dB
802.11ac (VHT20): Duty cycle = 1.895 ms / 2.069 ms x 100% = 91.6%, duty factor = 10 * log (1/Duty cycle) = 0.38 dB
802.11ac (VHT40): Duty cycle = 0.934 ms / 1.119 ms x 100% = 83.5%, duty factor = 10 * log (1/Duty cycle) = 0.78 dB
802.11ac (VHT80): Duty cycle = 0.452 ms / 0.624 ms x 100% = 72.4%, duty factor = 10 * log (1/Duty cycle) = 1.40 dB



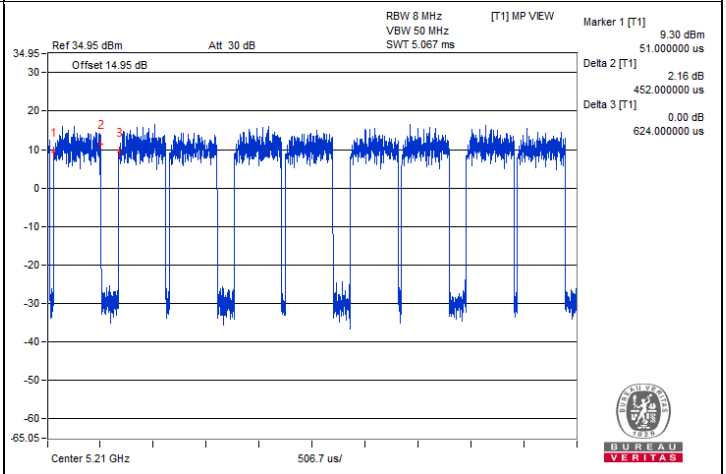
802.11a



802.11ac (VHT20)



802.11ac (VHT40)

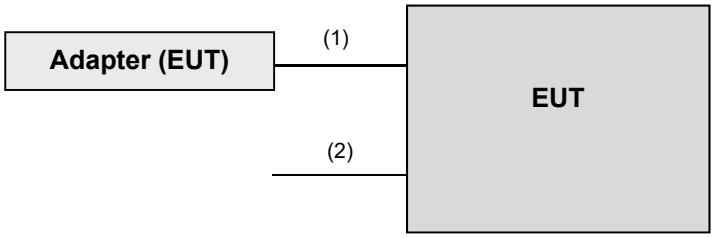


802.11ac (VHT80)

3.6 Test Program Used and Operation Descriptions

Controlling software (qdart_conn.win.1.0_installer_00088.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Power Cable	1	1.5	No	0	Accessory of EUT
2	USB type C cable	1	0.2	Y	0	Provided by client

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
Signal & Spectrum Analyzer R&S	FSV3044	101105	2024/2/27	2025/2/26
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/11/9

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer Keysight	8990B	MY51000485	2024/1/21	2025/1/20
Signal & Spectrum Analyzer R&S	FSV3044	101105	2024/2/27	2025/2/26
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
Wideband Power Sensor Keysight	N1923A	MY58020002	2024/1/18	2025/1/17
		MY58140009	2024/1/18	2025/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/11/9

4.3 Power Spectral Density

Refer to section 4.1 to get the tested date and information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

4.6 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2023/11/22	2024/11/21
50 ohm terminal resistance	E1-011279	04	2023/11/22	2024/11/21
	E1-011280	05	2023/11/22	2024/11/21
EMI Test Receiver R&S	ESCI	100613	2023/12/4	2024/12/3
Fixed Attenuator Mini-Circuits	HAT-10+	PAD-COND1-01	2024/1/6	2025/1/5
LISN R&S	ENV216	101826	2024/3/25	2025/3/24
	ESH3-Z5	100311	2024/9/5	2025/9/4
RF Coaxial Cable Woken	5D-FB	Cable-cond1-01	2024/1/6	2025/1/5
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2024/8/28	2025/8/27

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2024/11/12

4.7 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower KaiTuo	N/A	N/A	N/A	N/A
Antenna Tower Controller KaiTuo	KT-2000	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-995	2024/10/9	2025/10/8
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC330N	980783	2024/1/15	2025/1/14
	EMC001340	980201	2024/9/24	2025/9/23
PXA Signal Analyzer Keysight	N9030B	MY57140488	2024/3/6	2025/3/5
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201245	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-3000	201250	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-9000	201252(with PAD)	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208675	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 7.
2. Tested Date: 2024/11/11

4.8 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower KaiTuo	N/A	N/A	N/A	N/A
Antenna Tower Controller KaiTuo	KT-2000	N/A	N/A	N/A
Horn Antenna RFSPIN	DRH18-E	210104A18E	2023/11/12 2024/11/10	2024/11/11 2025/11/9
Horn Antenna Schwarzbeck	BBHA 9170	9170-1048	2023/11/12 2024/11/10	2024/11/11 2025/11/9
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC118A45SE	980810	2023/12/28	2024/12/27
	EMC184045SE	980787	2024/1/15	2025/1/14
PXA Signal Analyzer Keysight	N9030B	MY57140488	2024/3/6	2025/3/5
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2024/1/15	2025/1/14
	EMC101G-KM-KM-3000	201258	2024/1/15	2025/1/14
	EMC101G-KM-KM-5000	201261	2024/1/15	2025/1/14
	EMC104-SM-SM-1000	210101	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201242	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201230	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208675	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 7.
2. Tested Date: 2024/11/5 ~ 2024/11/12

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 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

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

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

5.3 Power Spectral Density

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

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

5.4 6 dB Bandwidth

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

5.5 Occupied Bandwidth

The results are for reference only.

5.6 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.

5.7 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).

5.8 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: 10 (dBm/MHz) *2 PK: 15.6 (dBm/MHz) *3 PK: 27 (dBm/MHz) *4	PK: 68.2 (dBμV/m) *1 PK: 105.2 (dBμV/m) *2 PK: 110.8 (dBμV/m) *3 PK: 122.2 (dBμV/m) *4
*1 beyond 75 MHz or more above of the band edge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

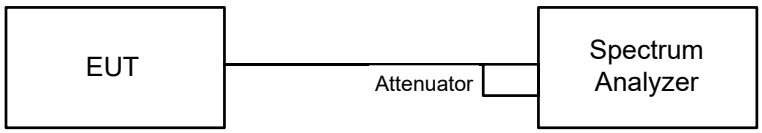
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup



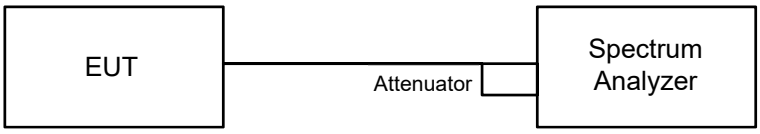
6.1.2 Test Procedure

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:

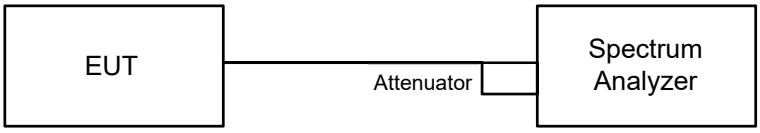
Method SA-2

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

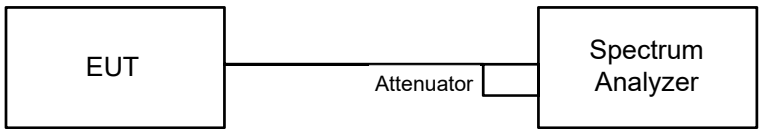
For specified measurement bandwidth 500 kHz:

Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 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 BWCF = 10log(500 kHz/300 kHz)
d. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ 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

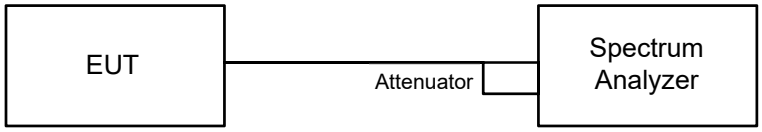


6.4.2 Test Procedure

a. Set resolution bandwidth (RBW) = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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

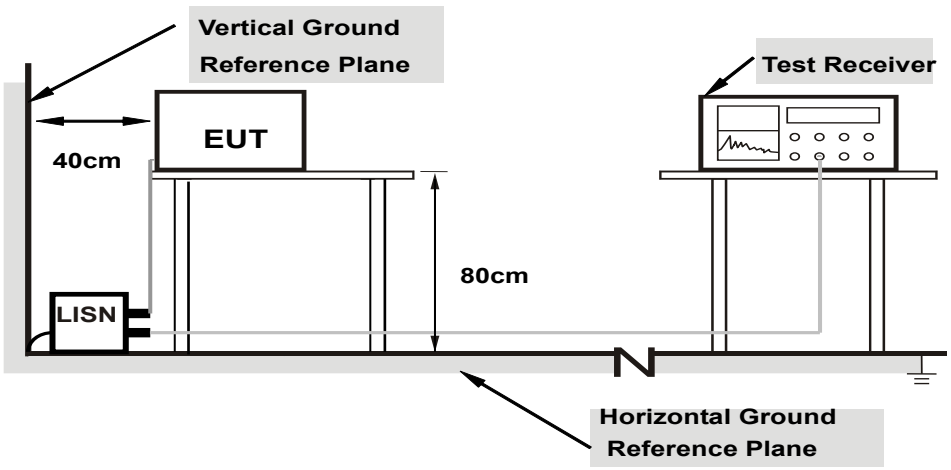


6.5.2 Test Procedure

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 AC Power Conducted Emissions

6.6.1 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).

6.6.2 Test Procedure

a. 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.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

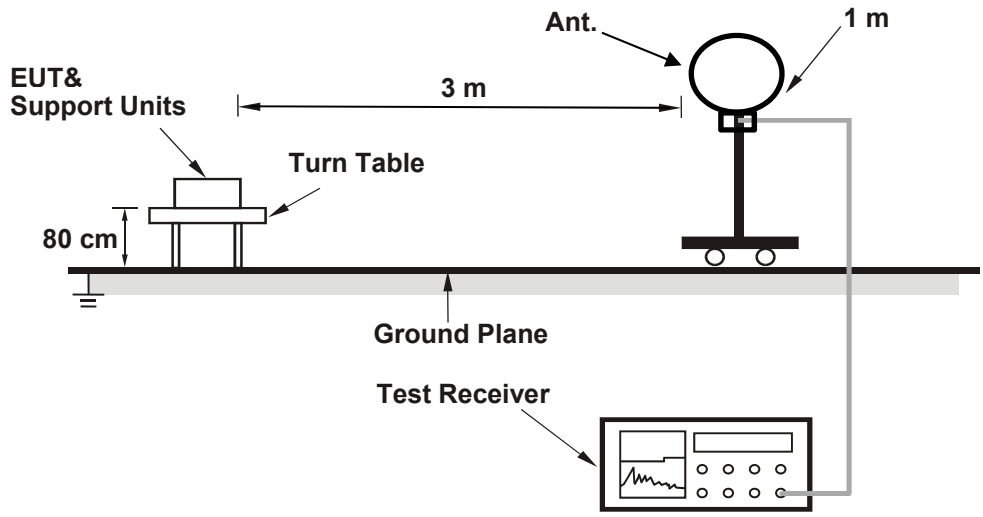
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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.

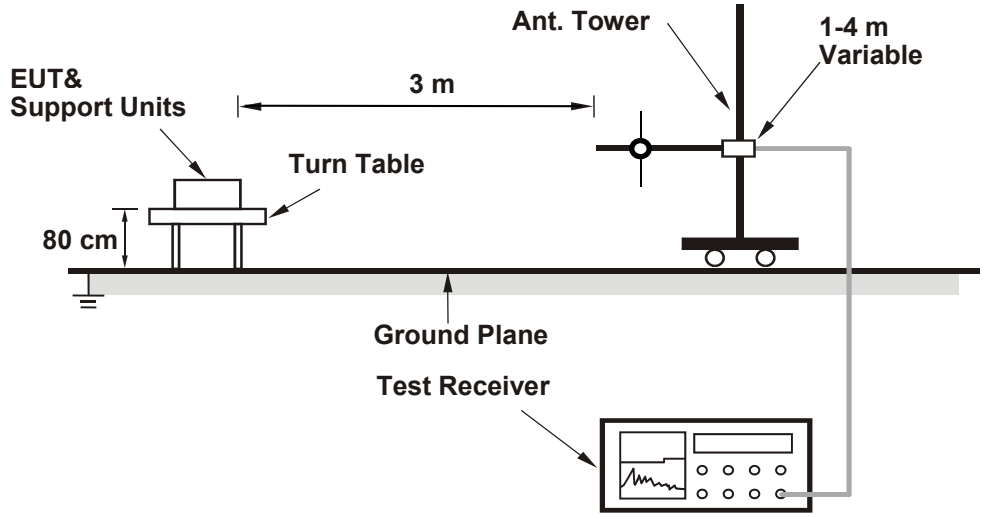
6.7 Unwanted Emissions below 1 GHz

6.7.1 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).

6.7.2 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.

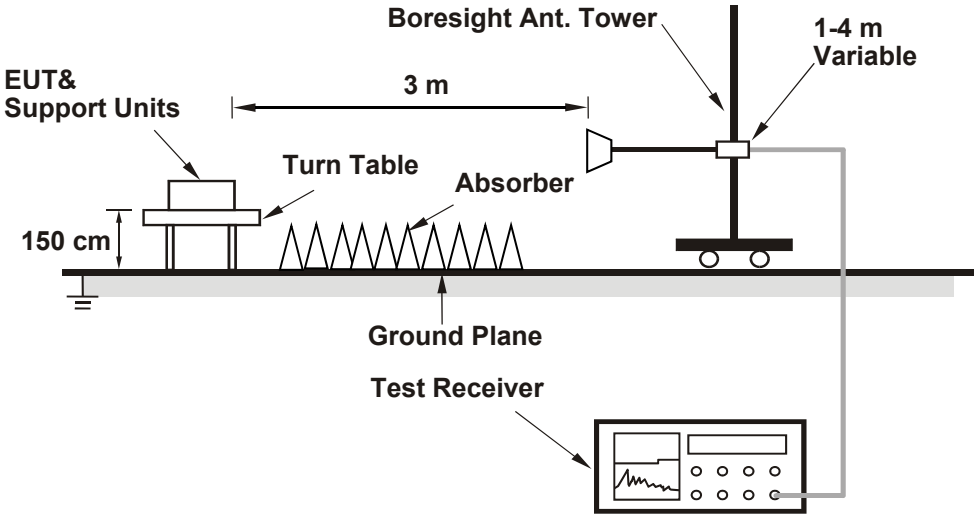
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

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.

6.8 Unwanted Emissions above 1 GHz

6.8.1 Test Setup



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

6.8.2 Test Procedure

a. 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.

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 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:

1. 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.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. 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:	Kevin Ko

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	21.59	21.56
60	5300	20.86	21.41
64	5320	21.43	21.22
100	5500	21.12	21.42
116	5580	21.49	21.84
140	5700	21.43	21.31
144 (U-NII-2C)	5720	15.87	15.96
144 (U-NII-3)	5720	6.00	5.69

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	21.56	24.33	>	24
60	5300	20.86	24.19	>	24
64	5320	21.22	24.26	>	24
100	5500	21.12	24.24	>	24
116	5580	21.49	24.32	>	24
140	5700	21.31	24.28	>	24
144 (U-NII-2C)	5720	15.87	23.00	<	24

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

802.11ac (VHT20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	22.07	21.82
60	5300	21.93	21.51
64	5320	22.22	22.13
100	5500	22.28	21.90
116	5580	22.07	21.81
140	5700	21.82	21.66
144 (U-NII-2C)	5720	15.96	16.10
144 (U-NII-3)	5720	6.34	5.84

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	21.82	24.38	>	24
60	5300	21.51	24.32	>	24
64	5320	22.13	24.44	>	24
100	5500	21.90	24.40	>	24
116	5580	21.81	24.38	>	24
140	5700	21.66	24.35	>	24
144 (U-NII-2C)	5720	15.96	23.03	<	24

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

802.11ac (VHT40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	41.46	45.81
62	5310	41.38	41.49
102	5510	41.49	41.21
110	5550	42.05	42.72
134	5670	41.24	41.25
142 (U-NII-2C)	5710	46.03	55.05
142 (U-NII-3)	5710	27.96	28.68

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
54	5270	41.46	27.17	>	24
62	5310	41.38	27.16	>	24
102	5510	41.21	27.15	>	24
110	5550	42.05	27.23	>	24
134	5670	41.24	27.15	>	24
142 (U-NII-2C)	5710	46.03	27.63	>	24

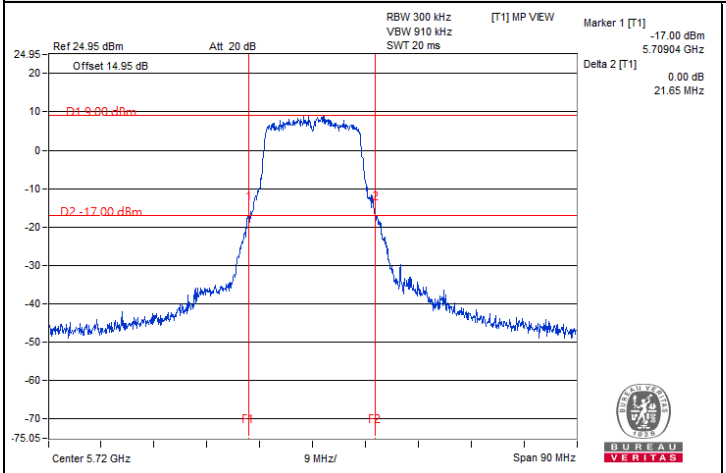
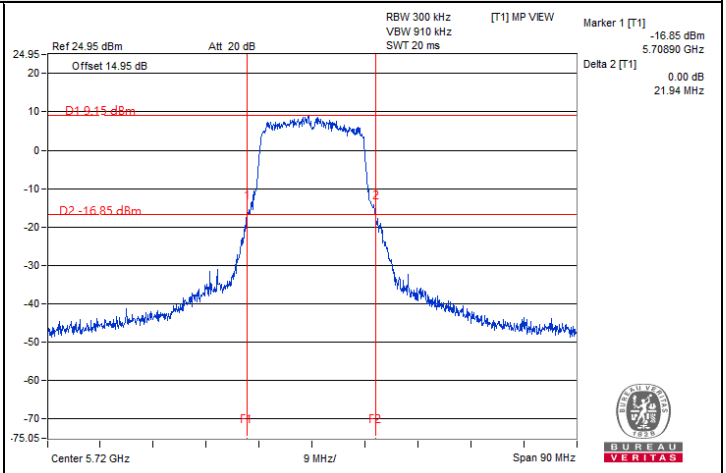
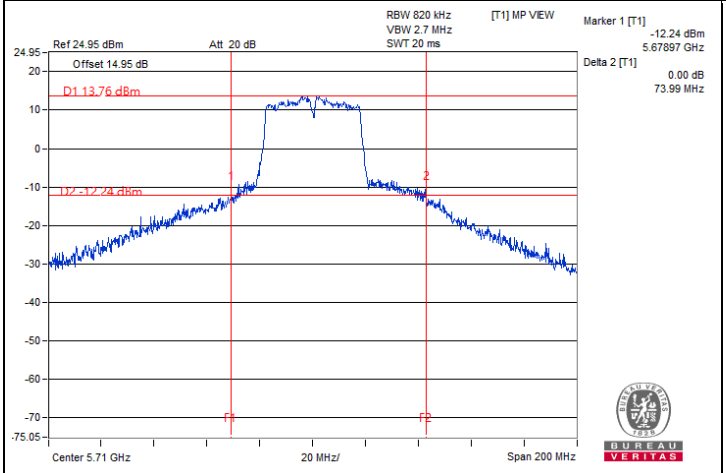
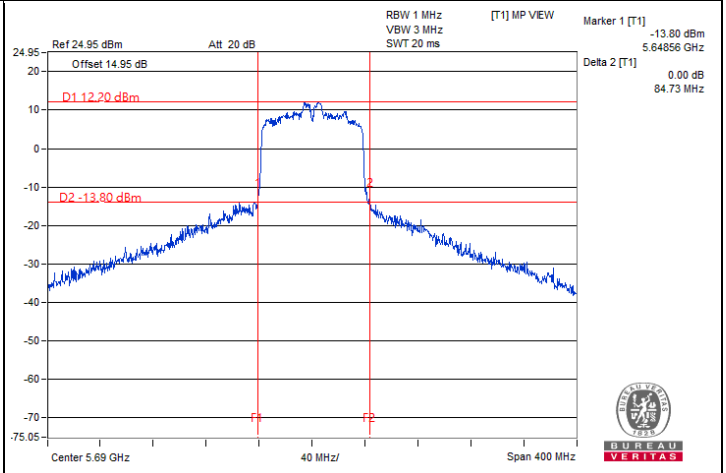
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ac (VHT80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.49	82.57
106	5530	81.54	81.68
122	5610	82.34	82.17
138 (U-NII-2C)	5690	90.22	76.44
138 (U-NII-3)	5690	10.46	8.29

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
58	5290	81.49	30.11	>	24
106	5530	81.54	30.11	>	24
122	5610	82.17	30.14	>	24
138 (U-NII-2C)	5690	76.44	29.83	>	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 / Chain 1 : CH 144 (U-NII-3)	802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-3)
	
802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-3)	802.11ac (VHT80) / Chain 1 : 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:	Kevin Ko

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	17.54	17.41	111.835	20.49	24	Pass
40	5200	17.57	17.44	112.610	20.52	24	Pass
48	5240	17.77	17.65	118.051	20.72	24	Pass
52	5260	18.25	18.17	132.449	21.22	24	Pass
60	5300	18.31	18.26	134.753	21.30	24	Pass
64	5320	18.82	18.26	143.196	21.56	24	Pass
100	5500	17.82	17.72	119.690	20.78	24	Pass
116	5580	17.42	17.31	109.035	20.38	24	Pass
140	5700	17.68	17.55	115.499	20.63	24	Pass
*144 (U-NII-2C)	5720	16.53	16.31	95.809	19.81	23	Pass
*144 (U-NII-3)	5720	9.81	9.81	20.906	13.20	30	Pass
149	5745	21.89	22.00	313.015	24.96	30	Pass
157	5785	21.87	22.17	318.632	25.03	30	Pass
165	5825	21.77	22.39	323.695	25.10	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	17.94	17.88	123.606	20.92	24	Pass
40	5200	18.16	18.21	131.685	21.20	24	Pass
48	5240	18.53	18.41	140.628	21.48	24	Pass
52	5260	19.02	18.78	155.309	21.91	24	Pass
60	5300	18.88	18.73	151.913	21.82	24	Pass
64	5320	18.97	18.80	154.744	21.90	24	Pass
100	5500	17.92	17.84	122.758	20.89	24	Pass
116	5580	17.01	17.00	100.353	20.02	24	Pass
140	5700	17.99	17.96	125.468	20.99	24	Pass
*144 (U-NII-2C)	5720	15.94	17.31	101.639	20.07	23.03	Pass
*144 (U-NII-3)	5720	9.71	10.25	21.778	13.38	30	Pass
149	5745	21.58	21.80	295.236	24.70	30	Pass
157	5785	21.66	21.95	303.230	24.82	30	Pass
165	5825	21.95	21.99	314.800	24.98	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	14.14	14.20	52.244	17.18	24	Pass
46	5230	20.45	20.31	218.316	23.39	24	Pass
54	5270	20.10	19.55	192.486	22.84	24	Pass
62	5310	16.46	15.97	83.795	19.23	24	Pass
102	5510	15.26	14.75	63.428	18.02	24	Pass
110	5550	19.26	19.21	167.702	22.25	24	Pass
134	5670	17.29	17.21	106.181	20.26	24	Pass
*142 (U-NII-2C)	5710	18.92	19.04	189.476	22.78	24	Pass
*142 (U-NII-3)	5710	8.81	8.74	18.073	12.57	30	Pass
151	5755	20.72	20.45	228.950	23.60	30	Pass
159	5795	20.91	20.88	245.772	23.91	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	18.15	18.16	130.777	21.17	24	Pass
40	5200	18.35	18.37	137.098	21.37	24	Pass
48	5240	18.74	18.63	147.763	21.70	24	Pass
52	5260	19.22	19.04	163.728	22.14	24	Pass
60	5300	19.04	18.92	158.151	21.99	24	Pass
64	5320	19.19	19.08	163.895	22.15	24	Pass
100	5500	18.10	18.12	129.429	21.12	24	Pass
116	5580	17.29	17.29	107.159	20.30	24	Pass
140	5700	18.27	18.23	133.670	21.26	24	Pass
*144 (U-NII-2C)	5720	17.01	17.85	121.397	20.84	23.03	Pass
*144 (U-NII-3)	5720	10.19	10.74	24.353	13.87	30	Pass
149	5745	21.80	21.96	308.392	24.89	30	Pass
157	5785	21.83	22.16	316.842	25.01	30	Pass
165	5825	22.24	22.17	332.311	25.22	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	14.34	14.39	54.643	17.38	24	Pass
46	5230	20.63	20.54	228.851	23.60	24	Pass
54	5270	20.31	19.83	203.560	23.09	24	Pass
62	5310	16.73	16.13	88.118	19.45	24	Pass
102	5510	15.51	14.99	67.113	18.27	24	Pass
110	5550	19.53	19.50	178.868	22.53	24	Pass
134	5670	17.55	17.39	111.713	20.48	24	Pass
*142 (U-NII-2C)	5710	19.88	20.18	241.419	23.83	24	Pass
*142 (U-NII-3)	5710	9.34	9.29	20.465	13.11	30	Pass
151	5755	20.93	20.67	240.561	23.81	30	Pass
159	5795	21.18	21.04	258.277	24.12	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

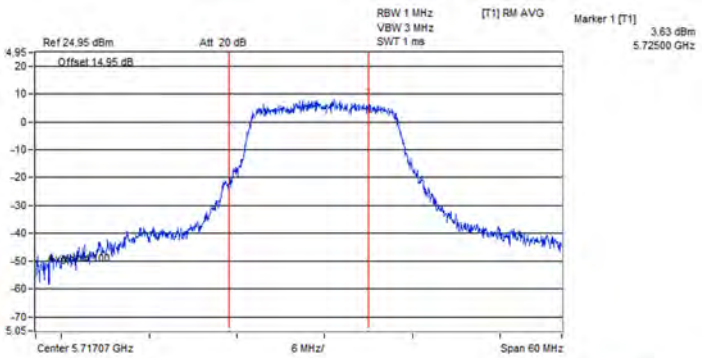
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	14.42	14.19	53.912	17.32	24	Pass
58	5290	15.58	15.75	73.725	18.68	24	Pass
106	5530	13.43	13.51	44.468	16.48	24	Pass
122	5610	18.68	18.21	140.012	21.46	24	Pass
*138 (U-NII-2C)	5690	19.07	18.78	215.684	23.34	24	Pass
*138 (U-NII-3)	5690	4.97	4.26	8.017	9.04	30	Pass
155	5775	18.85	18.22	143.110	21.56	30	Pass

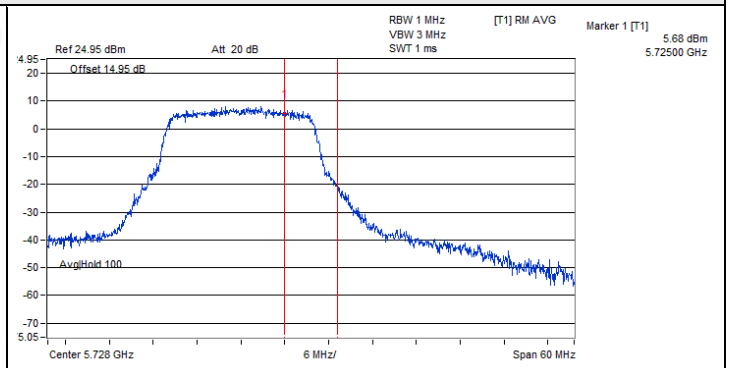
Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 5.56 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 5.36 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 5.54 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 5.52 dBi < 6 dBi, so the output power limit shall not be reduced.

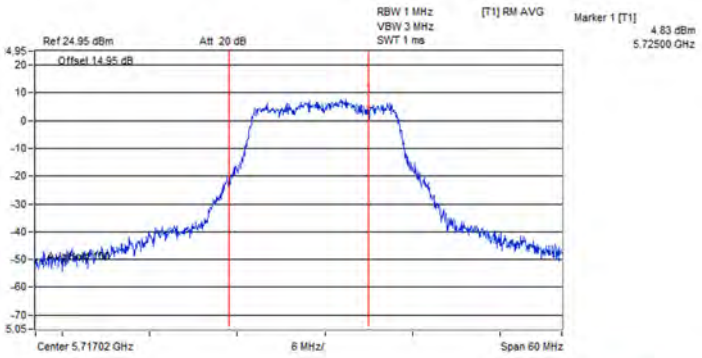
Spectrum Plot for channel straddling



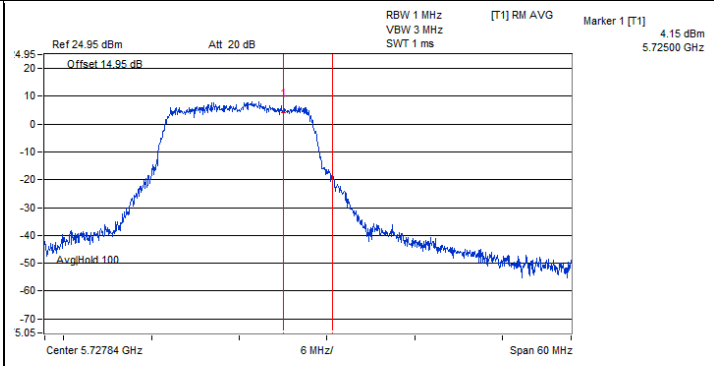
802.11a / Chain 0 : CH 144 (U-NII-2C)



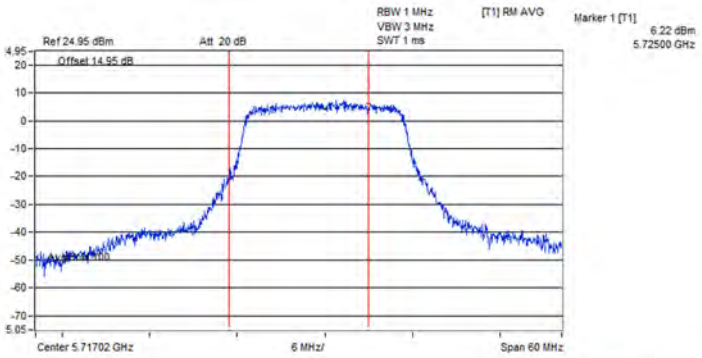
802.11a / Chain 0 : CH 144 (U-NII-3)



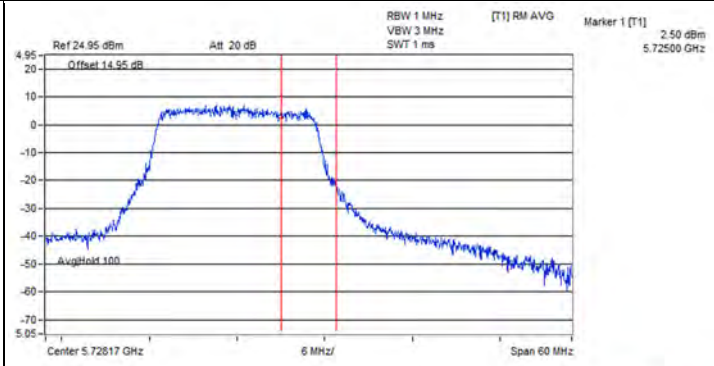
802.11a / Chain 1 : CH 144 (U-NII-2C)



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

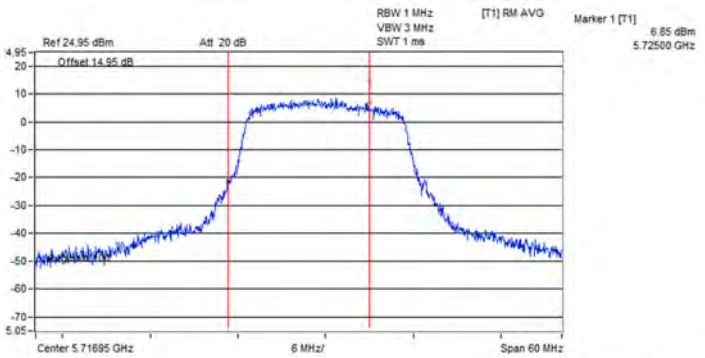


802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-2C)

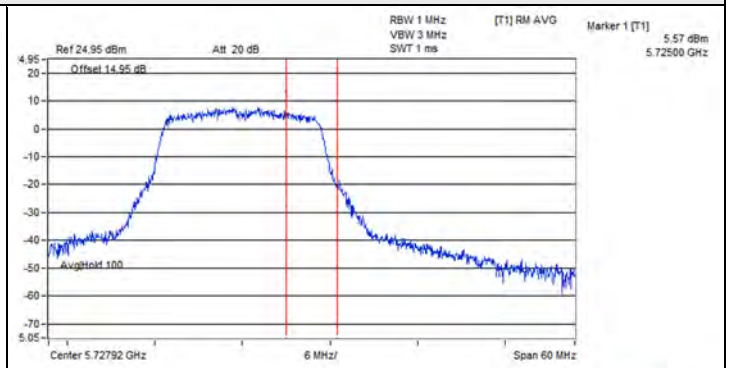


802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-3)

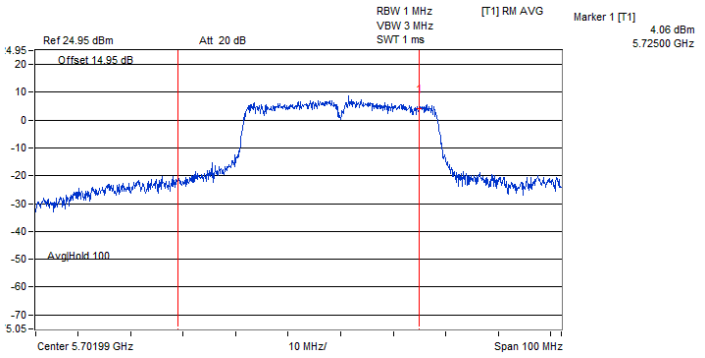
Spectrum Plot for channel straddling



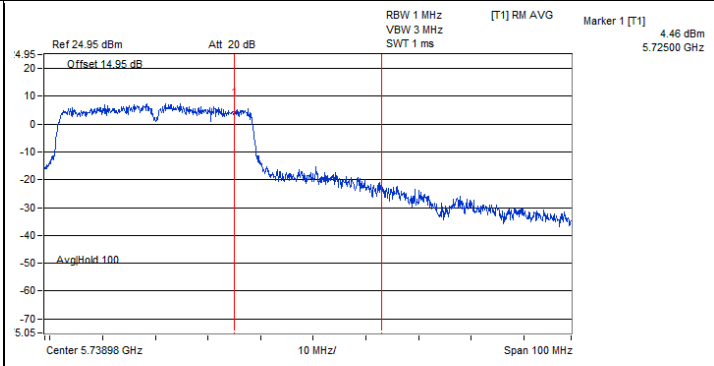
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-2C)



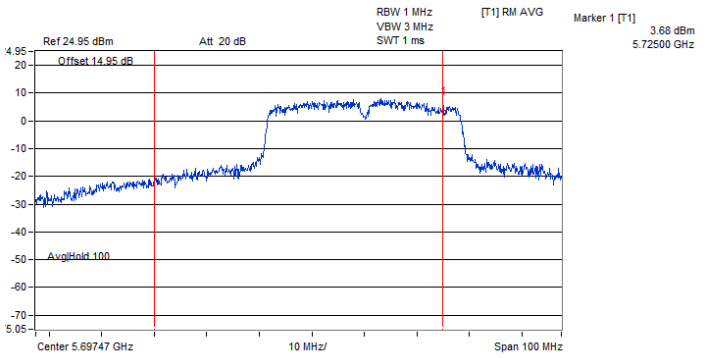
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-3)



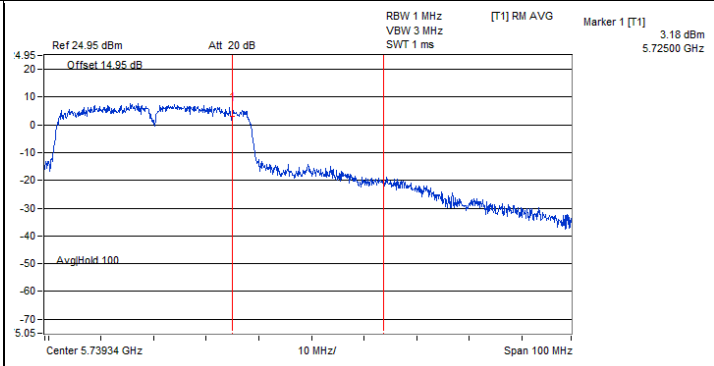
802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-2C)



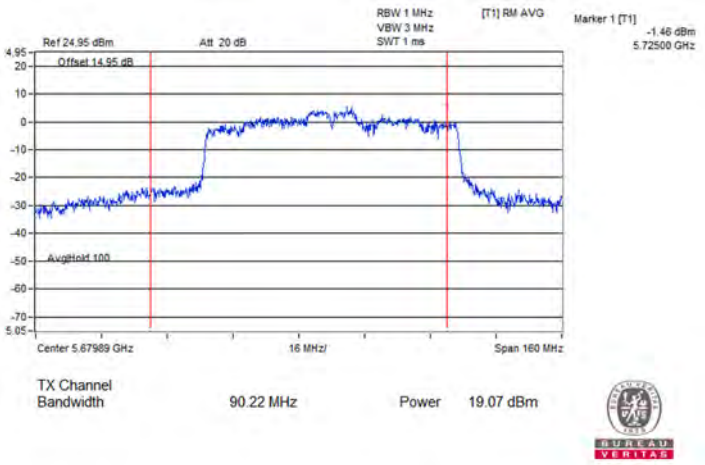
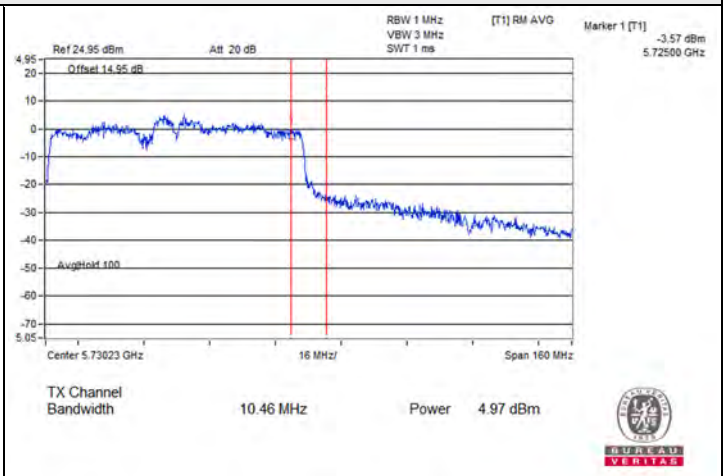
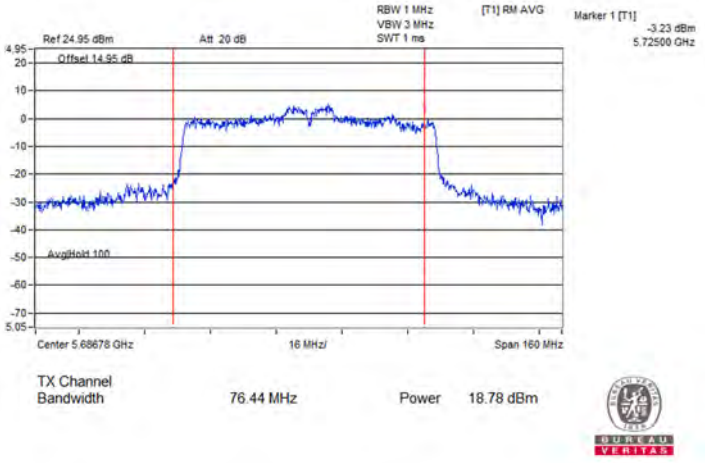
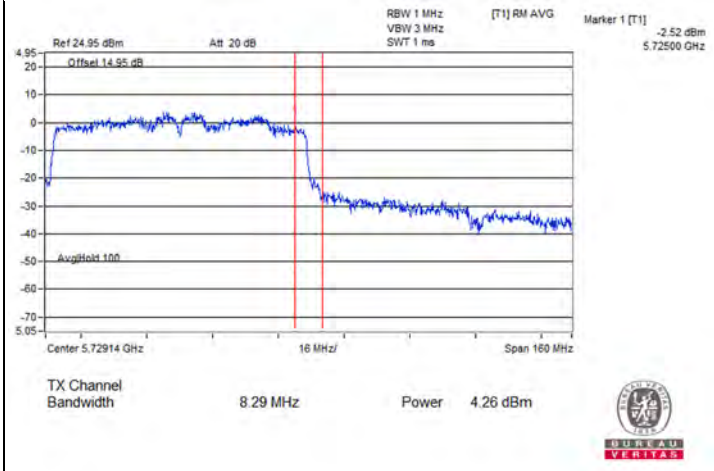
802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-3)



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



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

Spectrum Plot for channel straddling	
	
802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-2C)	802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-3)
	
802.11ac (VHT80) / Chain 1 : CH 138 (U-NII-2C)	802.11ac (VHT80) / Chain 1 : CH 138 (U-NII-3)

7.3 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	3.44	3.86	0.38	7.05	8.53	Pass
40	5200	3.77	4.19	0.38	7.38	8.53	Pass
48	5240	3.89	4.34	0.38	7.51	8.53	Pass
52	5260	3.72	4.38	0.38	7.45	8.96	Pass
60	5300	3.60	4.48	0.38	7.45	8.96	Pass
64	5320	3.68	4.38	0.38	7.43	8.96	Pass
100	5500	3.88	4.55	0.38	7.62	9.08	Pass
116	5580	3.98	4.12	0.38	7.44	9.08	Pass
140	5700	4.99	4.98	0.38	8.38	9.08	Pass
144 (U-NII-2C)	5720	4.61	4.73	0.38	8.06	9.08	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 8.47 dBi > 6dBi, so the power density limit shall be reduced to 11-(8.47-6) = 8.53 dBm/MHz.
4. For U-NII-2A, the directional gain is 8.04 dBi > 6 dBi, so the power density limit shall be reduced to 11-(8.04-6) = 8.96 dBm/MHz.
5. For U-NII-2C, the directional gain is 7.92 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.92-6) = 9.08 dBm/MHz.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	2.94	3.42	0.38	6.58	8.53	Pass
40	5200	3.12	3.65	0.38	6.78	8.53	Pass
48	5240	3.54	3.97	0.38	7.15	8.53	Pass
52	5260	3.44	3.64	0.38	6.93	8.96	Pass
60	5300	3.03	4.09	0.38	6.98	8.96	Pass
64	5320	3.26	3.62	0.38	6.83	8.96	Pass
100	5500	3.64	3.68	0.38	7.05	9.08	Pass
116	5580	3.66	3.96	0.38	7.20	9.08	Pass
140	5700	4.14	4.94	0.38	7.95	9.08	Pass
144 (U-NII-2C)	5720	4.10	3.92	0.38	7.40	9.08	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 8.47 dBi > 6dBi, so the power density limit shall be reduced to 11-(8.47-6) = 8.53 dBm/MHz.
4. For U-NII-2A, the directional gain is 8.04 dBi > 6 dBi, so the power density limit shall be reduced to 11-(8.04-6) = 8.96 dBm/MHz.
5. For U-NII-2C, the directional gain is 7.92 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.92-6) = 9.08 dBm/MHz.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
38	5190	-3.14	-2.28	0.78	1.10	8.53	Pass
46	5230	3.50	4.11	0.78	7.61	8.53	Pass
54	5270	2.70	3.59	0.78	6.96	8.96	Pass
62	5310	-1.14	0.80	0.78	3.73	8.96	Pass
102	5510	-1.58	-0.80	0.78	2.62	9.08	Pass
110	5550	2.65	3.13	0.78	6.69	9.08	Pass
134	5670	1.28	2.16	0.78	5.53	9.08	Pass
142 (U-NII-2C)	5710	4.26	3.81	0.78	7.83	9.08	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 8.47 dBi > 6dBi, so the power density limit shall be reduced to 11-(8.47-6) = 8.53 dBm/MHz.
4. For U-NII-2A, the directional gain is 8.04 dBi > 6 dBi, so the power density limit shall be reduced to 11-(8.04-6) = 8.96 dBm/MHz.
5. For U-NII-2C, the directional gain is 7.92 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.92-6) = 9.08 dBm/MHz.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
42	5210	-4.92	-4.95	1.40	-0.52	8.53	Pass
58	5290	-2.76	-2.54	1.40	1.76	8.96	Pass
106	5530	-5.04	-5.13	1.40	-0.67	9.08	Pass
122	5610	-0.04	-0.20	1.40	4.29	9.08	Pass
138 (U-NII-2C)	5690	1.67	1.39	1.40	5.94	9.08	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 8.47 dBi > 6dBi, so the power density limit shall be reduced to 11-(8.47-6) = 8.53 dBm/MHz.
4. For U-NII-2A, the directional gain is 8.04 dBi > 6 dBi, so the power density limit shall be reduced to 11-(8.04-6) = 8.96 dBm/MHz.
5. For U-NII-2C, the directional gain is 7.92 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.92-6) = 9.08 dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	-1.81	-1.94	1.14	0.38	3.74	27.81	Pass
149	5745	3.61	3.80	6.72	0.38	9.32	27.81	Pass
157	5785	3.39	3.76	6.59	0.38	9.19	27.81	Pass
165	5825	3.35	3.34	6.36	0.38	8.96	27.81	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-3, the directional gain is 8.19 dBi > 6 dBi, so the power density limit shall be reduced to 30-(8.19-6) = 27.81 dBm/500kHz.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	-2.43	-1.52	1.06	0.38	3.66	27.81	Pass
149	5745	3.11	3.40	6.27	0.38	8.87	27.81	Pass
157	5785	3.05	3.26	6.17	0.38	8.77	27.81	Pass
165	5825	2.53	2.49	5.52	0.38	8.12	27.81	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-3, the directional gain is 8.19 dBi > 6 dBi, so the power density limit shall be reduced to 30-(8.19-6) = 27.81 dBm/500kHz.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
142 (U-NII-3)	5710	-3.01	-3.05	-0.02	0.78	2.98	27.81	Pass
151	5755	-1.26	-1.01	1.88	0.78	4.88	27.81	Pass
159	5795	-1.77	-1.54	1.36	0.78	4.36	27.81	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-3, the directional gain is 8.19 dBi > 6 dBi, so the power density limit shall be reduced to 30-(8.19-6) = 27.81 dBm/500kHz.

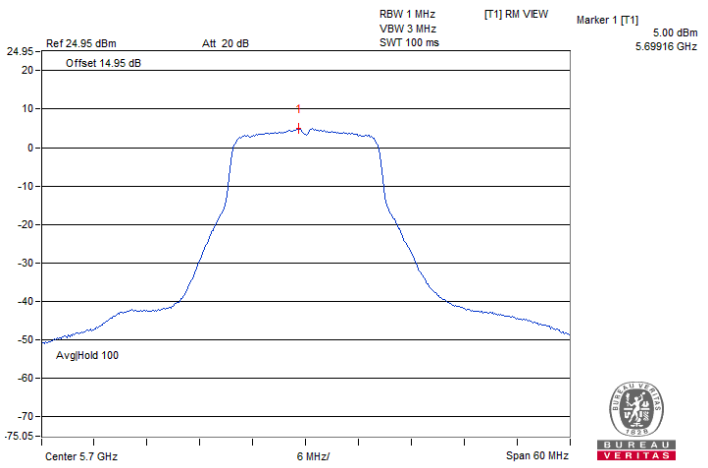
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
138 (U-NII-3)	5690	-7.75	-9.09	-5.36	1.4	-1.74	27.81	Pass
155	5775	-4.25	-4.68	-1.45	1.4	2.17	27.81	Pass

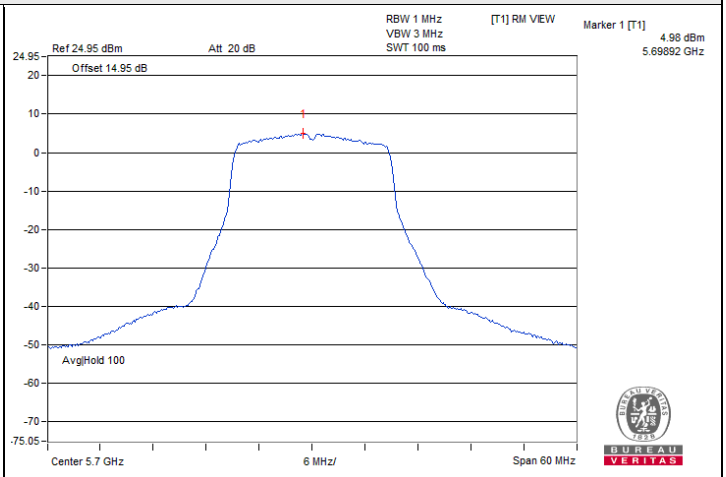
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[($10^{Chain0/20}$ + $10^{Chain1/20}$)^2 / 2]
3. For U-NII-3, the directional gain is 8.19 dBi > 6 dBi, so the power density limit shall be reduced to 30-(8.19-6) = 27.81 dBm/500kHz.

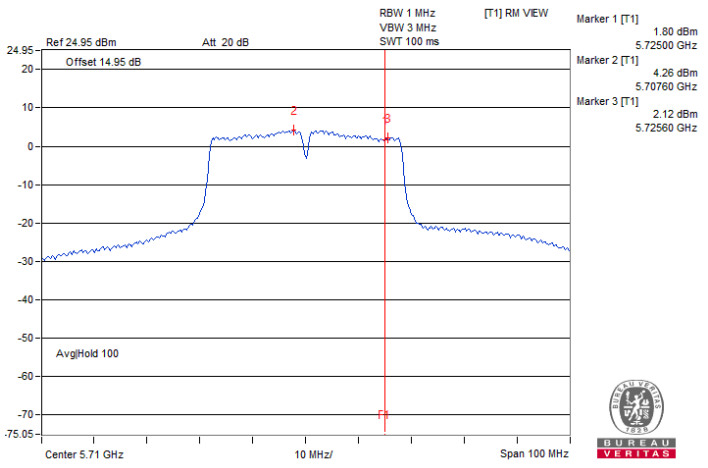
Spectrum Plot of Maximum Value



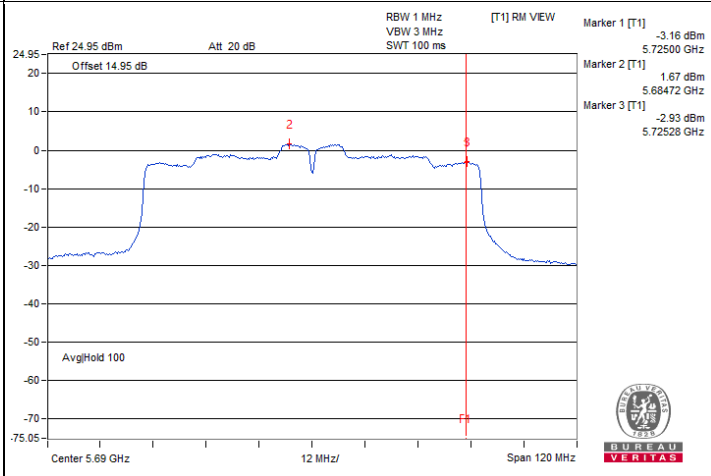
802.11a / Chain 0 : CH 140



802.11ac (VHT20) / Chain 1 : CH 140

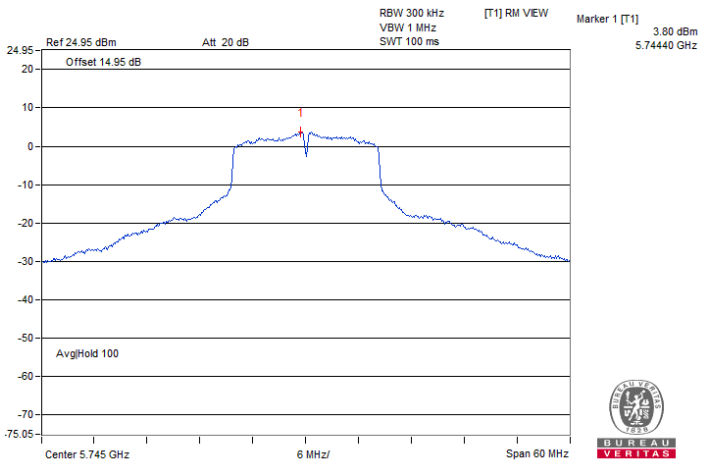


802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-2C)

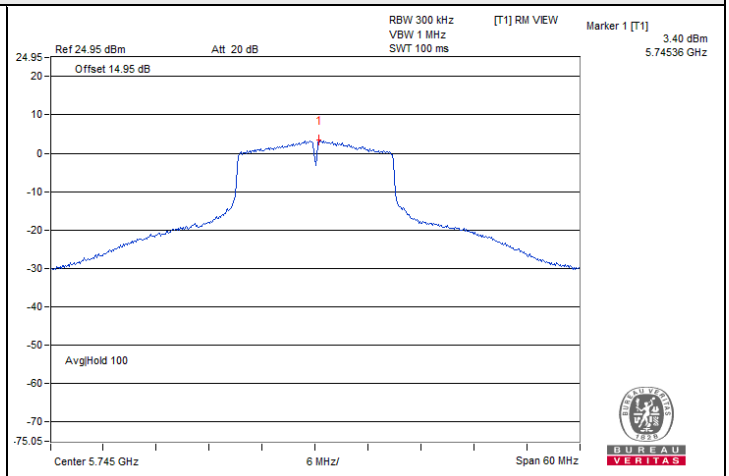


802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-2C)

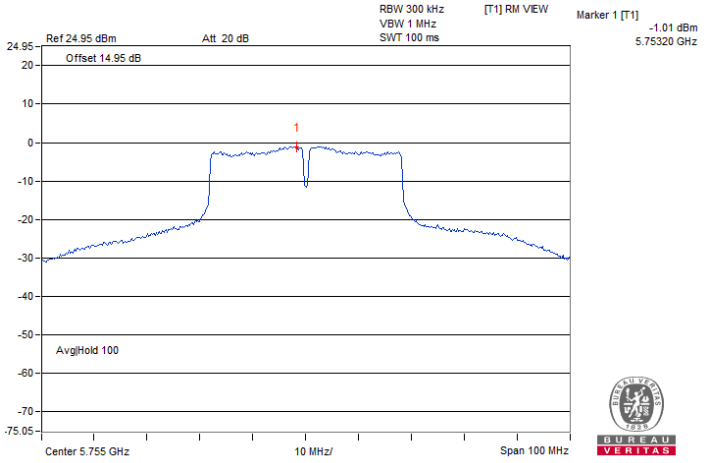
Spectrum Plot of Maximum Value



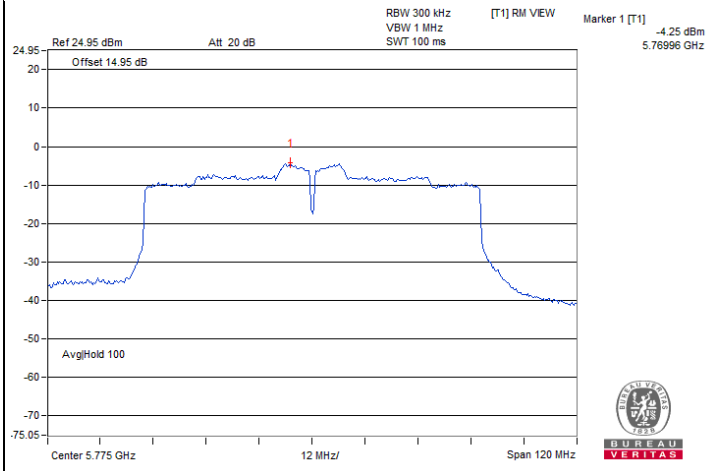
802.11a / Chain 1 : CH 149



802.11ac (VHT20) / Chain 1 : CH 149



802.11ac (VHT40) / Chain 1 : CH 151



802.11ac (VHT80) / Chain 0 : CH 155

7.4 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.89	2.73	0.5	Pass
149	5745	16.29	15.65	0.5	Pass
157	5785	16.33	15.29	0.5	Pass
165	5825	15.68	16.38	0.5	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	3.38	3.16	0.5	Pass
149	5745	17.56	17.59	0.5	Pass
157	5785	15.89	17.26	0.5	Pass
165	5825	16.98	17.28	0.5	Pass

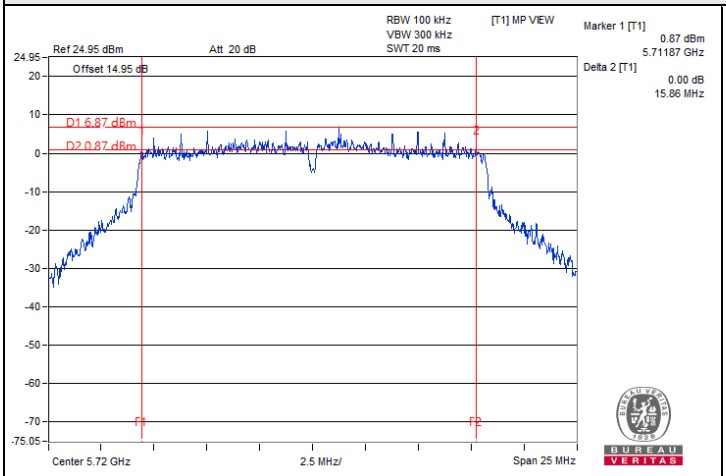
802.11ac (VHT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
142 (U-NII-3)	5710	3.11	2.55	0.5	Pass
151	5755	35.37	36.30	0.5	Pass
159	5795	35.81	35.33	0.5	Pass

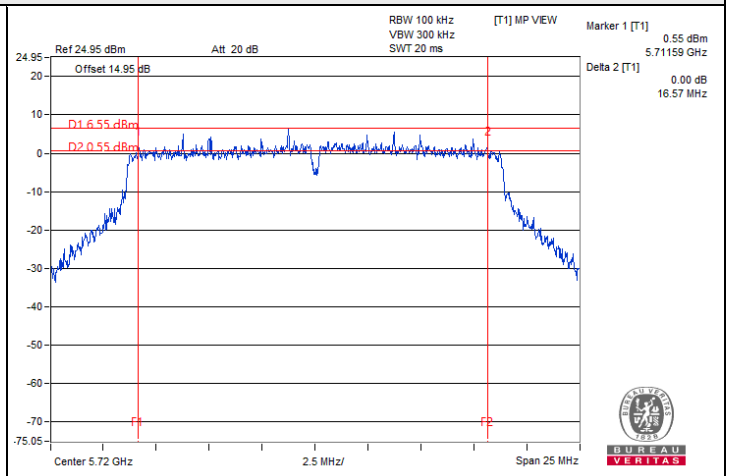
802.11ac (VHT80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
138 (U-NII-3)	5690	1.30	2.51	0.5	Pass
155	5775	28.98	52.64	0.5	Pass

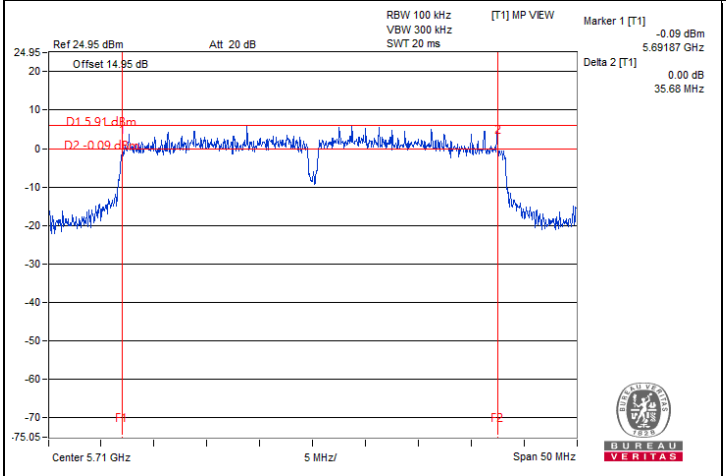
Spectrum Plot of Minimum Value



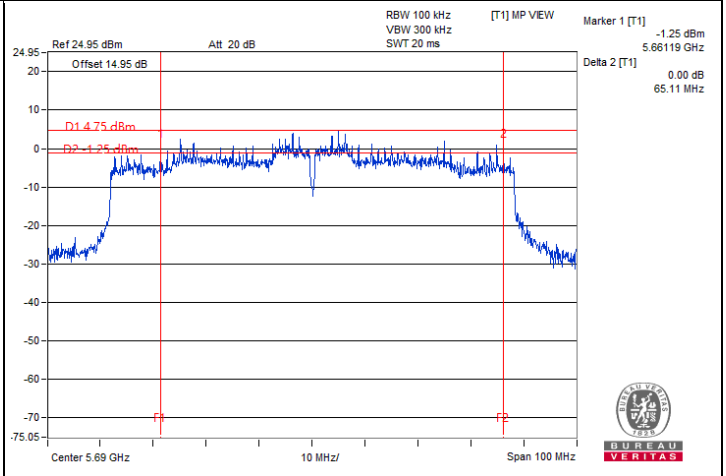
802.11a / Chain 1 : CH 144 (U-NII-3)



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



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



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

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:	Kevin Ko

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.56	16.44
40	5200	16.56	16.44
48	5240	16.56	16.62
52	5260	16.50	16.44
60	5300	16.50	16.44
64	5320	16.50	16.44
100	5500	16.50	16.56
116	5580	16.56	16.56
140	5700	16.50	16.50
144 (U-NII-2C)	5720	13.28	13.22
144 (U-NII-3)	5720	3.34	3.22
149	5745	26.70	24.18
157	5785	29.52	25.20
165	5825	28.80	29.22

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.76	17.64
40	5200	17.64	17.70
48	5240	17.70	17.64
52	5260	17.70	17.70
60	5300	17.64	17.58
64	5320	17.70	17.82
100	5500	17.70	17.70
116	5580	17.64	17.64
140	5700	17.76	17.58
144 (U-NII-2C)	5720	13.88	13.88
144 (U-NII-3)	5720	3.88	3.82
149	5745	26.76	21.90
157	5785	27.84	25.80
165	5825	28.68	28.14

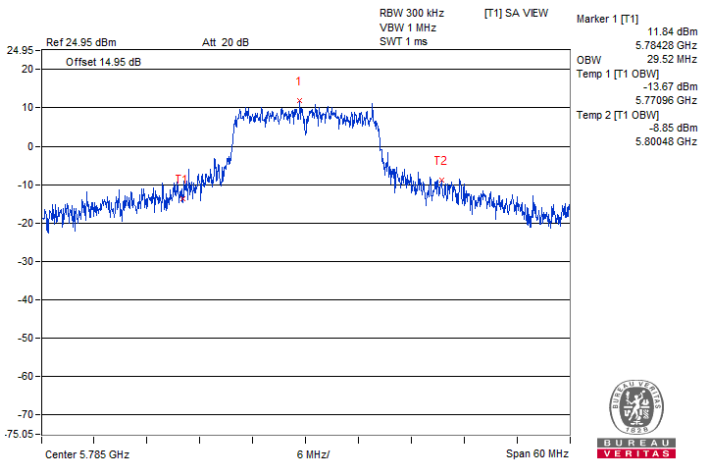
802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.48	36.48
46	5230	36.48	36.60
54	5270	36.36	36.60
62	5310	36.36	36.36
102	5510	36.48	36.36
110	5550	36.36	36.48
134	5670	36.36	36.36
142 (U-NII-2C)	5710	33.60	34.44
142 (U-NII-3)	5710	3.96	7.32
151	5755	38.76	46.20
159	5795	42.96	53.28

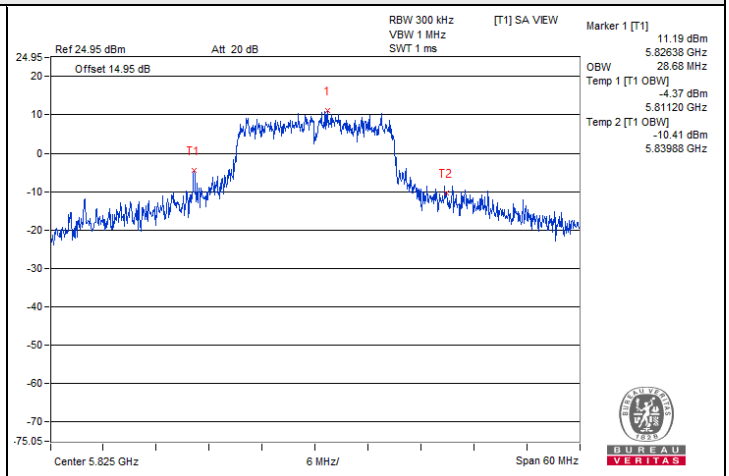
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.36	75.12
58	5290	75.12	75.36
106	5530	75.12	74.88
122	5610	75.36	75.36
138 (U-NII-2C)	5690	72.92	72.92
138 (U-NII-3)	5690	3.16	2.44
155	5775	75.60	75.84

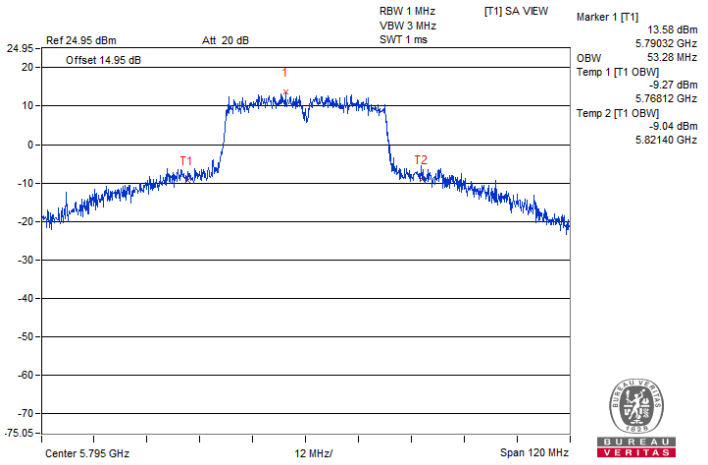
Spectrum Plot of Maximum Value



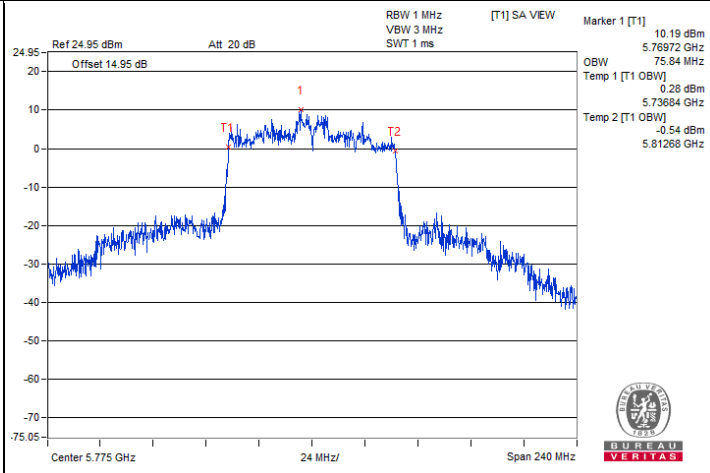
802.11a / Chain 0 : CH 157



802.11ac (VHT20) / Chain 0 : CH 165



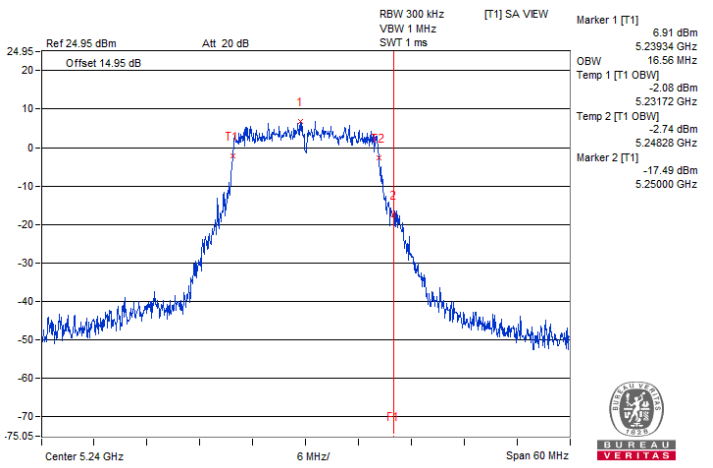
802.11ac (VHT40) / Chain 1 : CH 159



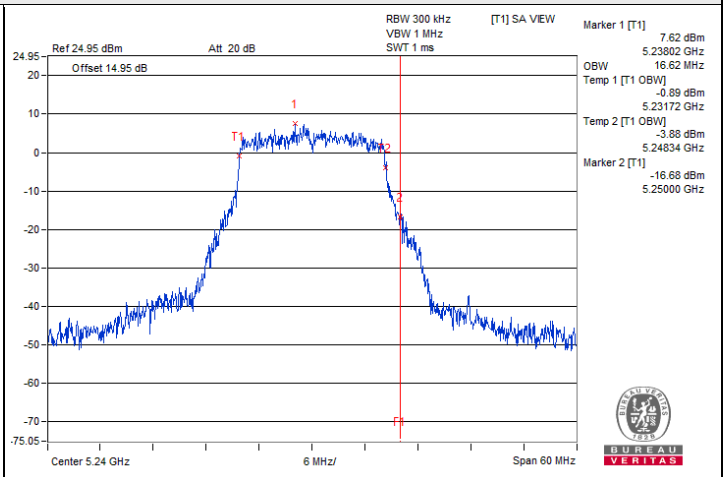
802.11ac (VHT80) / Chain 1 : CH 155

Spectrum Plot for nearby DFS band

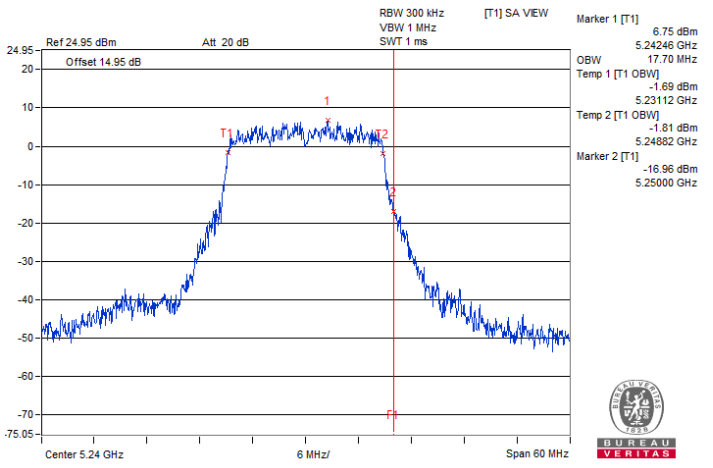
(DFS is required, if 99% OCP straddle into U-NII-2A)



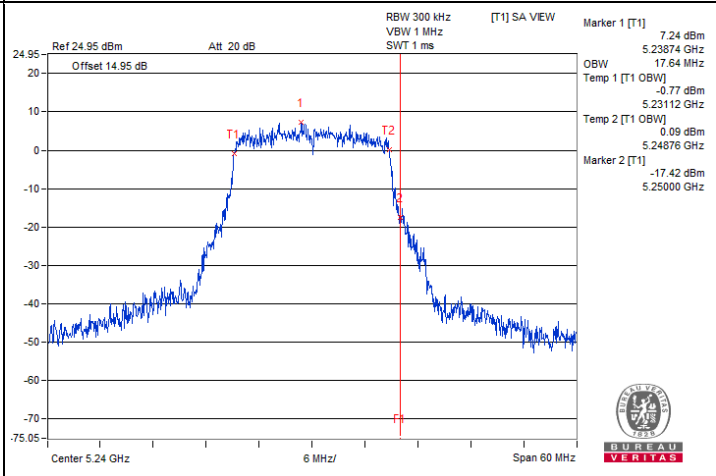
802.11a / Chain 0 : CH 48



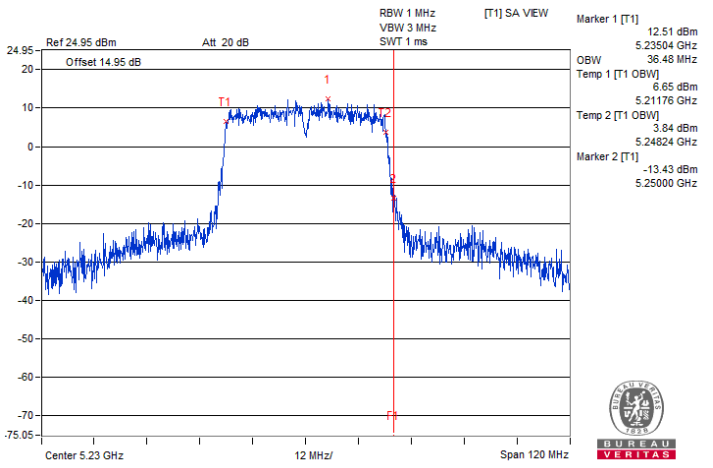
802.11a / Chain 1 : CH 48



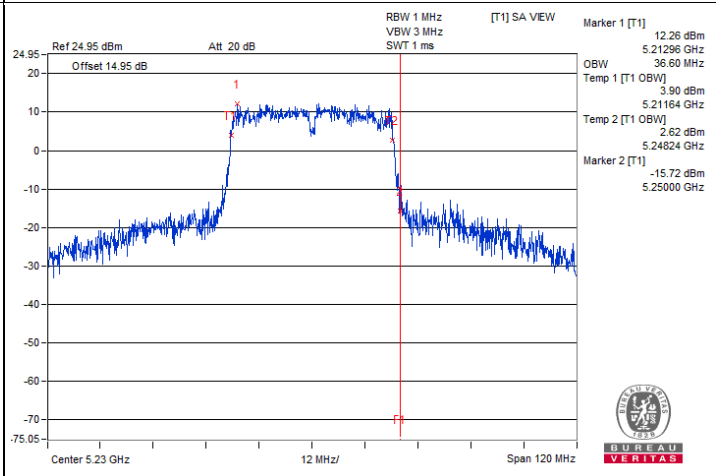
802.11ac (VHT20) / Chain 0 : CH 48



802.11ac (VHT20) / Chain 1 : CH 48



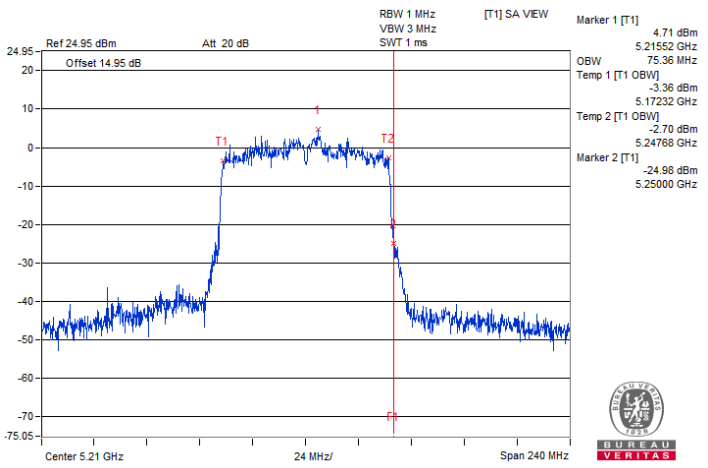
802.11ac (VHT40) / Chain 0 : CH 46



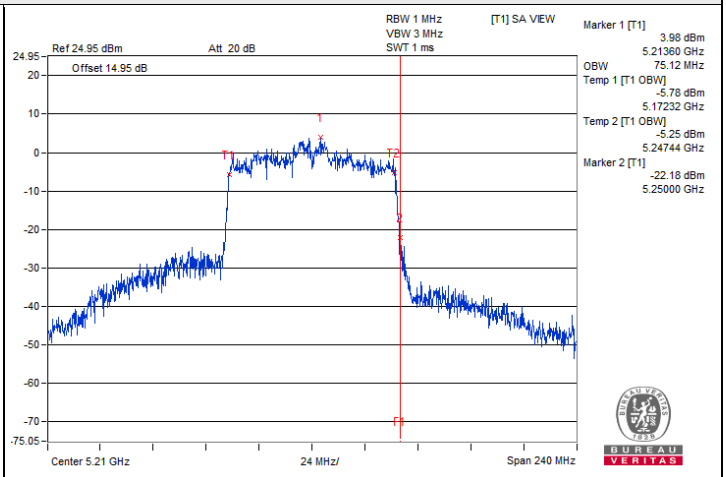
802.11ac (VHT40) / Chain 1 : CH 46

Spectrum Plot for nearby DFS band

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



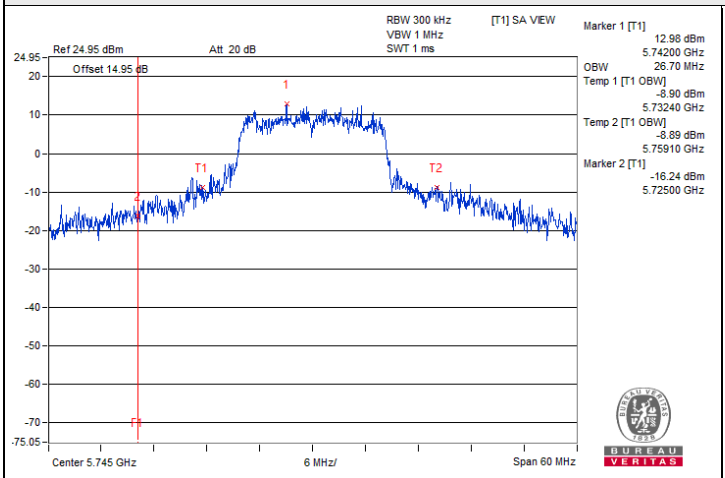
802.11ac (VHT80) / Chain 0 : CH 42



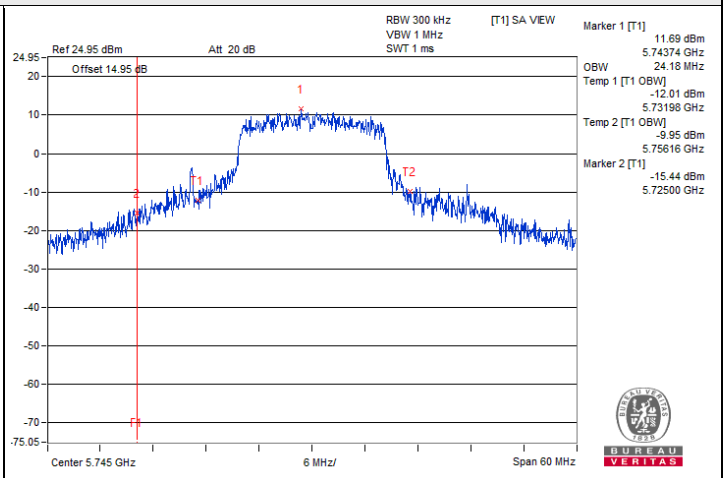
802.11ac (VHT80) / Chain 1 : CH 42

Spectrum Plot for nearby DFS band

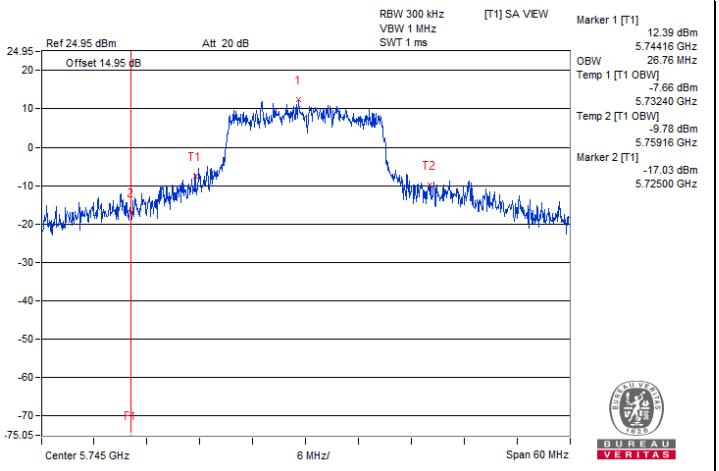
(DFS is required, if 99% OCP straddle into U-NII-2C)



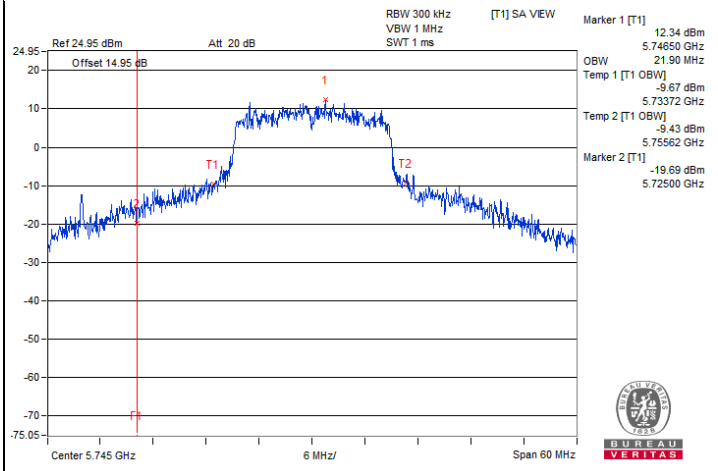
802.11a / Chain 0 : CH 149



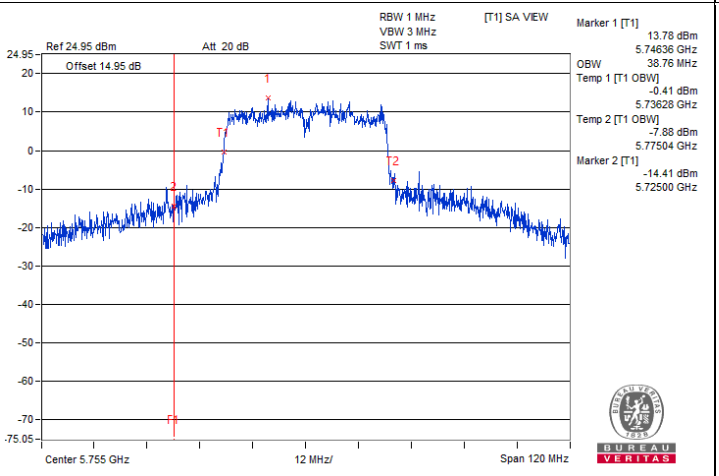
802.11a / Chain 1 : CH 149



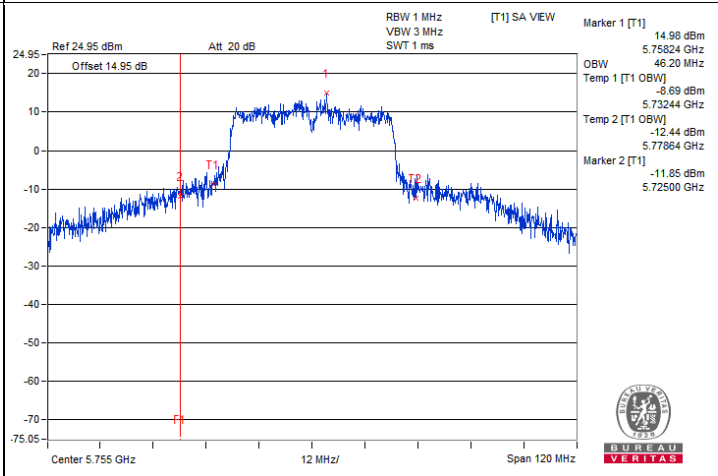
802.11ac (VHT20) / Chain 0 : CH 149



802.11ac (VHT20) / Chain 1 : CH 149



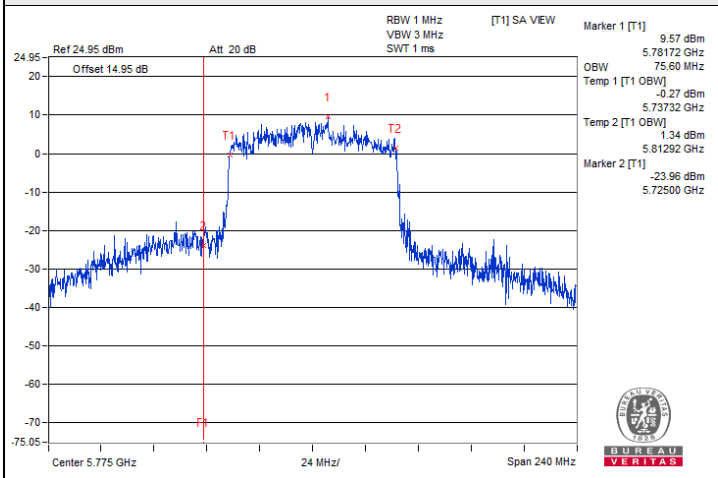
802.11ac (VHT40) / Chain 0 : CH 151



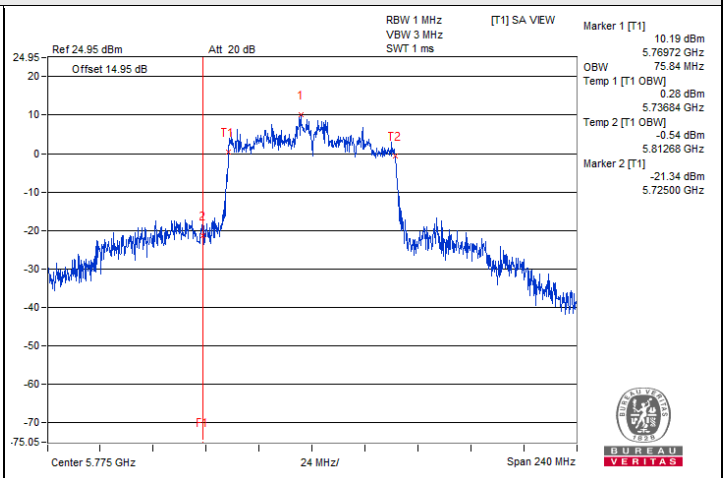
802.11ac (VHT40) / Chain 1 : CH 151

Spectrum Plot for nearby DFS band

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



802.11ac (VHT80) / Chain 0 : CH 155



802.11ac (VHT80) / Chain 1 : CH 155

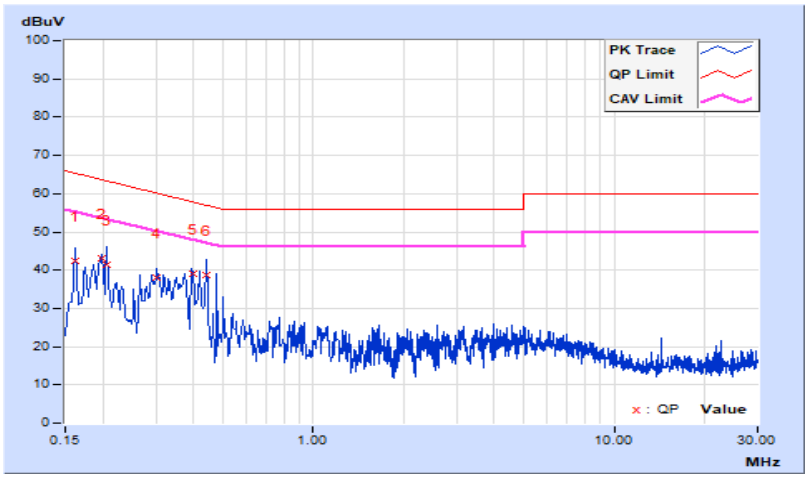
7.6 AC Power Conducted Emissions

RF Mode	802.11ac (VHT20)	**Channel**	CH 165：5825 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 75 % RH
Tested By	Charles Hsiao		

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	0.16105	9.72	32.57	15.79	42.29	25.51	65.41	55.41	-23.12	-29.90
2	0.19728	9.72	33.26	15.04	42.98	24.76	63.72	53.72	-20.74	-28.96
3	0.20523	9.72	31.62	14.08	41.34	23.80	63.40	53.40	-22.06	-29.60
4	0.29992	9.77	28.28	18.32	38.05	28.09	60.25	50.25	-22.20	-22.16
5	0.39800	9.83	29.13	22.44	38.96	32.27	57.90	47.90	-18.94	-15.63
6	0.43946	9.83	28.73	22.44	38.56	32.27	57.07	47.07	-18.51	-14.80

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

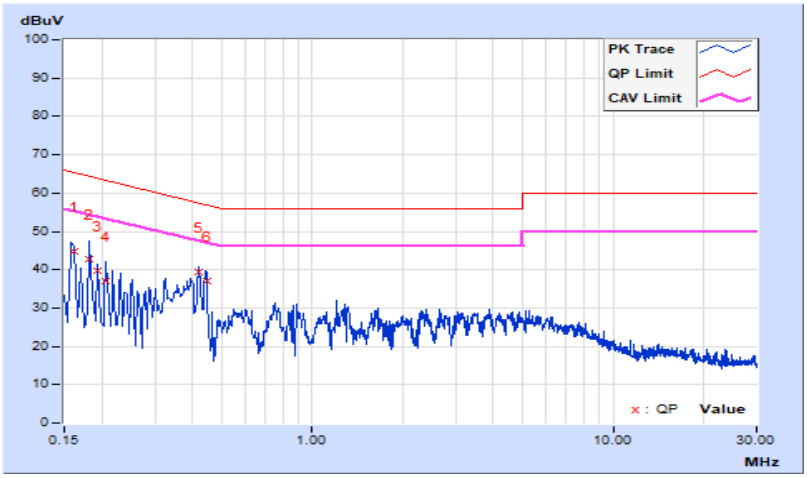


RF Mode	802.11ac (VHT20)	Channel	CH 165：5825 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Charles Hsiao		

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	0.16200	9.69	35.25	16.49	44.94	26.18	65.36	55.36	-20.42	-29.18
2	0.18217	9.70	33.16	14.43	42.86	24.13	64.39	54.39	-21.53	-30.26
3	0.19365	9.71	30.10	12.10	39.81	21.81	63.88	53.88	-24.07	-32.07
4	0.20523	9.71	27.16	11.54	36.87	21.25	63.40	53.40	-26.53	-32.15
5	0.41800	9.87	29.36	25.26	39.23	35.13	57.49	47.49	-18.26	-12.36
6	**0.44600**	**9.87**	**27.10**	**25.07**	**36.97**	**34.94**	**56.95**	**46.95**	**-19.98**	**-12.01**

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



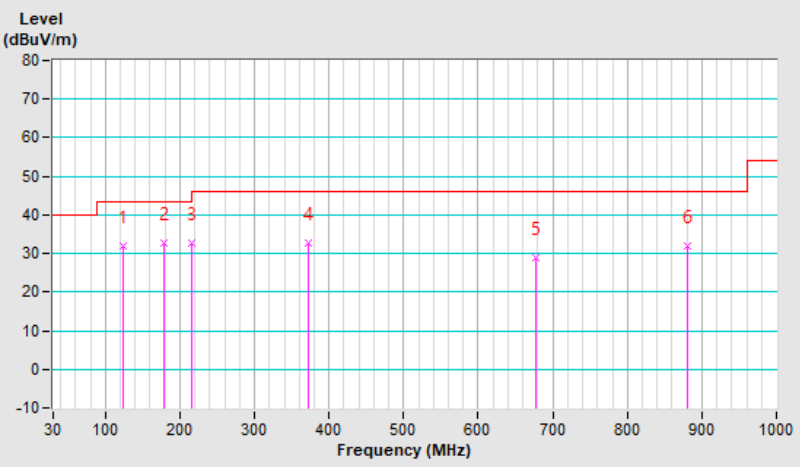
7.7 Unwanted Emissions below 1 GHz

RF Mode	802.11ac (VHT20)	**Channel**	CH 165：5825 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 65 % RH
Tested By	Charles Hsiao		

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	124.09	31.8 QP	43.5	-11.7	1.51 H	166	46.9	-15.1
2	**178.41**	**32.9 QP**	**43.5**	**-10.6**	**1.37 H**	**48**	**47.4**	**-14.5**
3	216.24	32.8 QP	46.0	-13.2	1.02 H	215	49.7	-16.9
4	372.41	32.7 QP	46.0	-13.3	1.87 H	199	43.6	-10.9
5	677.96	28.9 QP	46.0	-17.1	1.61 H	115	33.7	-4.8
6	880.69	32.0 QP	46.0	-14.0	1.88 H	189	34.1	-2.1

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

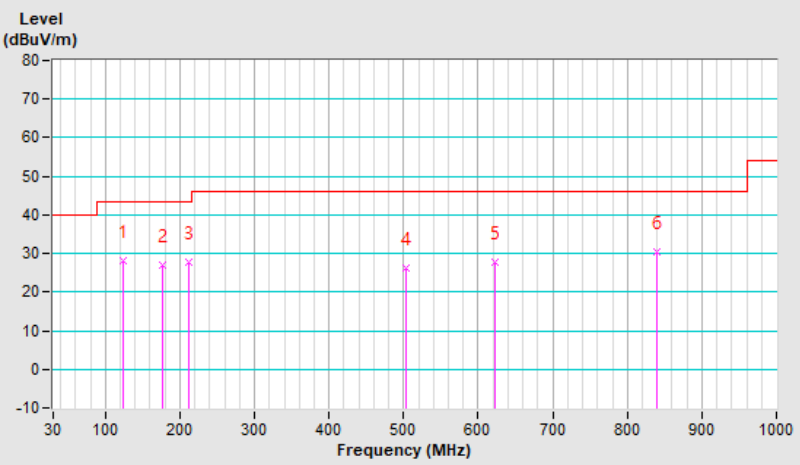


RF Mode	802.11ac (VHT20)	**Channel**	CH 165：5825 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 65 % RH
Tested By	Charles Hsiao		

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	123.12	28.2 QP	43.5	-15.3	1.21 V	119	43.2	-15.0
2	177.44	26.9 QP	43.5	-16.6	1.60 V	163	41.3	-14.4
3	211.39	27.9 QP	43.5	-15.6	1.05 V	117	44.8	-16.9
4	502.39	26.4 QP	46.0	-19.6	1.53 V	299	34.6	-8.2
5	621.70	27.7 QP	46.0	-18.3	1.37 V	84	33.2	-5.5
6	839.95	30.6 QP	46.0	-15.4	1.57 V	341	33.2	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.8 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, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	68.0 PK	74.0	-6.0	1.89 H	265	59.9	8.1
2	5150.00	52.3 AV	54.0	-1.7	1.89 H	265	44.2	8.1
3	*5180.00	116.2 PK			1.89 H	265	77.6	38.6
4	*5180.00	106.3 AV			1.89 H	265	67.7	38.6
5	#10360.00	58.0 PK	68.2	-10.2	1.80 H	175	42.7	15.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	67.7 PK	74.0	-6.3	1.86 V	294	59.6	8.1
2	5150.00	53.2 AV	54.0	-0.8	1.86 V	294	45.1	8.1
3	*5180.00	117.8 PK			1.86 V	294	79.2	38.6
4	*5180.00	107.7 AV			1.86 V	294	69.1	38.6
5	#10360.00	61.0 PK	68.2	-7.2	1.89 V	180	45.7	15.3

Remarks:

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

RF Mode	802.11a	Channel	CH 40：5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	117.2 PK			1.92 H	266	78.7	38.5
2	*5200.00	107.7 AV			1.92 H	266	69.2	38.5
3	#10400.00	57.7 PK	68.2	-10.5	1.82 H	184	42.6	15.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	119.3 PK			2.14 V	308	80.8	38.5
2	*5200.00	110.0 AV			2.14 V	308	71.5	38.5
3	#10400.00	62.3 PK	68.2	-5.9	1.90 V	171	47.2	15.1

Remarks:

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

RF Mode	802.11a	Channel	CH 48：5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.6 PK	74.0	-14.4	1.91 H	262	51.5	8.1
2	5150.00	49.2 AV	54.0	-4.8	1.91 H	262	41.1	8.1
3	*5240.00	117.6 PK			1.91 H	262	79.2	38.4
4	*5240.00	107.8 AV			1.91 H	262	69.4	38.4
5	#10480.00	59.1 PK	68.2	-9.1	1.94 H	199	44.2	14.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.3 PK	74.0	-11.7	2.10 V	290	54.2	8.1
2	5150.00	52.2 AV	54.0	-1.8	2.10 V	290	44.1	8.1
3	*5240.00	119.2 PK			2.10 V	290	80.8	38.4
4	*5240.00	109.3 AV			2.10 V	290	70.9	38.4
5	#10480.00	61.7 PK	68.2	-6.5	1.80 V	184	46.8	14.9

Remarks:

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

RF Mode	802.11a	Channel	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	117.9 PK			1.92 H	270	79.4	38.5
2	*5260.00	107.8 AV			1.92 H	270	69.3	38.5
3	5350.00	60.6 PK	74.0	-13.4	1.92 H	270	52.8	7.8
4	5350.00	49.8 AV	54.0	-4.2	1.92 H	270	42.0	7.8
5	#10520.00	58.1 PK	68.2	-10.1	1.79 H	164	43.3	14.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	119.3 PK			2.02 V	310	80.8	38.5
2	*5260.00	109.2 AV			2.02 V	310	70.7	38.5
3	5350.00	61.2 PK	74.0	-12.8	2.02 V	310	53.4	7.8
4	5350.00	50.0 AV	54.0	-4.0	2.02 V	310	42.2	7.8
5	#10520.00	63.5 PK	68.2	-4.7	1.65 V	164	48.7	14.8

Remarks:

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

RF Mode	802.11a	Channel	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	117.5 PK			1.92 H	265	79.2	38.3
2	*5300.00	106.6 AV			1.92 H	265	68.3	38.3
3	5350.00	64.6 PK	74.0	-9.4	1.92 H	265	56.8	7.8
4	5350.00	49.8 AV	54.0	-4.2	1.92 H	265	42.0	7.8
5	10600.00	58.5 PK	74.0	-15.5	1.82 H	179	43.5	15.0
6	10600.00	44.5 AV	54.0	-9.5	1.82 H	179	29.5	15.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	119.0 PK			1.84 V	320	80.7	38.3
2	*5300.00	108.2 AV			1.84 V	320	69.9	38.3
3	5350.00	66.7 PK	74.0	-7.3	1.84 V	320	58.9	7.8
4	5350.00	49.9 AV	54.0	-4.1	1.84 V	320	42.1	7.8
5	10600.00	63.0 PK	74.0	-11.0	1.73 V	175	48.0	15.0
6	10600.00	48.9 AV	54.0	-5.1	1.73 V	175	33.9	15.0

Remarks:

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

RF Mode	802.11a	Channel	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	115.2 PK			1.94 H	266	76.8	38.4
2	*5320.00	105.6 AV			1.94 H	266	67.2	38.4
3	5350.00	65.8 PK	74.0	-8.2	1.94 H	266	58.0	7.8
4	5350.00	50.7 AV	54.0	-3.3	1.94 H	266	42.9	7.8
5	10640.00	57.9 PK	74.0	-16.1	1.85 H	175	42.7	15.2
6	10640.00	44.3 AV	54.0	-9.7	1.85 H	175	29.1	15.2
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	116.8 PK			1.71 V	322	78.4	38.4
2	*5320.00	107.2 AV			1.71 V	322	68.8	38.4
3	5350.00	69.3 PK	74.0	-4.7	1.71 V	322	61.5	7.8
4	5350.00	52.8 AV	54.0	-1.2	1.71 V	322	45.0	7.8
5	10640.00	62.0 PK	74.0	-12.0	1.75 V	178	46.8	15.2
6	10640.00	46.4 AV	54.0	-7.6	1.75 V	178	31.2	15.2

Remarks:

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

RF Mode	802.11a	Channel	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.6 PK	74.0	-14.4	2.14 H	270	51.7	7.9
2	5460.00	48.5 AV	54.0	-5.5	2.14 H	270	40.6	7.9
3	#5470.00	61.6 PK	68.2	-6.6	2.14 H	270	53.7	7.9
4	*5500.00	114.7 PK			2.14 H	270	76.0	38.7
5	*5500.00	104.6 AV			2.14 H	270	65.9	38.7
6	11100.00	59.8 PK	74.0	-14.2	1.75 H	229	43.8	16.0
7	11100.00	45.8 AV	54.0	-8.2	1.75 H	229	29.8	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.2 PK	74.0	-11.8	2.29 V	294	54.3	7.9
2	5460.00	51.0 AV	54.0	-3.0	2.29 V	294	43.1	7.9
3	#5470.00	67.0 PK	68.2	-1.2	2.29 V	294	59.1	7.9
4	*5500.00	116.3 PK			2.29 V	294	77.6	38.7
5	*5500.00	106.2 AV			2.29 V	294	67.5	38.7
6	11100.00	63.2 PK	74.0	-10.8	2.55 V	132	47.2	16.0
7	11100.00	49.0 AV	54.0	-5.0	2.55 V	132	33.0	16.0

Remarks:

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

RF Mode	802.11a	Channel	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	118.3 PK			2.19 H	254	79.1	39.2
2	*5580.00	108.4 AV			2.19 H	254	69.2	39.2
3	11160.00	60.3 PK	74.0	-13.7	1.70 H	226	44.3	16.0
4	11160.00	47.3 AV	54.0	-6.7	1.70 H	226	31.3	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.0 PK			2.11 V	301	80.8	39.2
2	*5580.00	110.1 AV			2.11 V	301	70.9	39.2
3	11160.00	63.6 PK	74.0	-10.4	2.51 V	133	47.6	16.0
4	11160.00	50.2 AV	54.0	-3.8	2.51 V	133	34.2	16.0

Remarks:

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

RF Mode	802.11a	Channel	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	114.7 PK			2.11 H	262	74.9	39.8
2	*5700.00	104.6 AV			2.11 H	262	64.8	39.8
3	#5725.00	64.7 PK	68.2	-3.5	2.11 H	262	55.5	9.2
4	11400.00	60.3 PK	74.0	-13.7	1.75 H	228	44.4	15.9
5	11400.00	46.3 AV	54.0	-7.7	1.75 H	228	30.4	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.3 PK			2.16 V	280	76.5	39.8
2	*5700.00	106.2 AV			2.16 V	280	66.4	39.8
3	#5725.00	67.0 PK	68.2	-1.2	2.16 V	280	57.8	9.2
4	11400.00	63.6 PK	74.0	-10.4	2.50 V	130	47.7	15.9
5	11400.00	49.5 AV	54.0	-4.5	2.50 V	130	33.6	15.9

Remarks:

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

RF Mode	802.11a	Channel	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.7 PK	68.2	-10.5	2.16 H	272	49.8	7.9
2	*5720.00	118.6 PK			2.16 H	272	78.6	40.0
3	*5720.00	108.7 AV			2.16 H	272	68.7	40.0
4	#5850.00	60.0 PK	68.2	-8.2	2.16 H	272	50.4	9.6
5	11440.00	61.2 PK	74.0	-12.8	1.74 H	215	45.2	16.0
6	11440.00	48.2 AV	54.0	-5.8	1.74 H	215	32.2	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.0 PK	68.2	-10.2	2.15 V	293	50.1	7.9
2	*5720.00	120.4 PK			2.15 V	293	80.4	40.0
3	*5720.00	110.3 AV			2.15 V	293	70.3	40.0
4	#5850.00	60.3 PK	68.2	-7.9	2.15 V	293	50.7	9.6
5	11440.00	64.6 PK	74.0	-9.4	2.54 V	139	48.6	16.0
6	11440.00	51.0 AV	54.0	-3.0	2.54 V	139	35.0	16.0

Remarks:

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

RF Mode	802.11a	Channel	CH 149：5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	#5649.60	62.4 PK	68.2	-5.8	2.28 H	250	53.4	9.0
2	*5745.00	119.0 PK			2.28 H	250	78.8	40.2
3	*5745.00	109.1 AV			2.28 H	250	68.9	40.2
4	#5948.00	59.4 PK	68.2	-8.8	2.28 H	250	49.9	9.5
5	11490.00	60.2 PK	74.0	-13.8	1.84 H	232	44.1	16.1
6	11490.00	47.1 AV	54.0	-6.9	1.84 H	232	31.0	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.00	65.4 PK	68.2	-2.8	2.81 V	288	56.4	9.0
2	*5745.00	120.9 PK			2.81 V	288	80.7	40.2
3	*5745.00	110.7 AV			2.81 V	288	70.5	40.2
4	#5956.40	59.7 PK	68.2	-8.5	2.81 V	288	50.2	9.5
5	11490.00	64.0 PK	74.0	-10.0	2.21 V	132	47.9	16.1
6	11490.00	52.4 AV	54.0	-1.6	2.21 V	132	36.3	16.1

Remarks:

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

RF Mode	802.11a	Channel	CH 157：5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5647.60	58.4 PK	68.2	-9.8	2.21 H	253	49.4	9.0
2	*5785.00	119.1 PK			2.21 H	253	78.7	40.4
3	*5785.00	109.0 AV			2.21 H	253	68.6	40.4
4	#5952.00	59.2 PK	68.2	-9.0	2.21 H	253	49.7	9.5
5	11570.00	59.5 PK	74.0	-14.5	1.81 H	233	43.4	16.1
6	11570.00	46.4 AV	54.0	-7.6	1.81 H	233	30.3	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5638.00	59.0 PK	68.2	-9.2	2.71 V	283	50.1	8.9
2	*5785.00	120.7 PK			2.71 V	283	80.3	40.4
3	*5785.00	110.8 AV			2.71 V	283	70.4	40.4
4	#5944.00	60.0 PK	68.2	-8.2	2.71 V	283	50.5	9.5
5	11570.00	63.5 PK	74.0	-10.5	2.30 V	138	47.4	16.1
6	11570.00	51.4 AV	54.0	-2.6	2.30 V	138	35.3	16.1

Remarks:

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

RF Mode	802.11a	Channel	CH 165：5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5617.20	59.1 PK	68.2	-9.1	2.18 H	251	50.4	8.7
2	*5825.00	119.5 PK			2.18 H	251	79.1	40.4
3	*5825.00	109.3 AV			2.18 H	251	68.9	40.4
4	#5924.80	60.1 PK	68.3	-8.2	2.18 H	251	50.6	9.5
5	11650.00	59.3 PK	74.0	-14.7	1.85 H	224	43.3	16.0
6	11650.00	46.5 AV	54.0	-7.5	1.85 H	224	30.5	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5634.00	58.5 PK	68.2	-9.7	2.85 V	282	49.6	8.9
2	*5825.00	121.3 PK			2.85 V	282	80.9	40.4
3	*5825.00	111.3 AV			2.85 V	282	70.9	40.4
4	#5928.80	64.4 PK	68.2	-3.8	2.85 V	282	54.9	9.5
5	11650.00	63.4 PK	74.0	-10.6	2.39 V	136	47.4	16.0
6	11650.00	51.8 AV	54.0	-2.2	2.39 V	136	35.8	16.0

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 36：5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.9 PK	74.0	-13.1	1.92 H	161	52.8	8.1
2	5150.00	50.2 AV	54.0	-3.8	1.92 H	161	42.1	8.1
3	*5180.00	116.3 PK			1.92 H	161	77.7	38.6
4	*5180.00	106.8 AV			1.92 H	161	68.2	38.6
5	#10360.00	57.8 PK	68.2	-10.4	1.77 H	170	42.5	15.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.5 PK	74.0	-7.5	2.20 V	290	58.4	8.1
2	5150.00	53.0 AV	54.0	-1.0	2.20 V	290	44.9	8.1
3	*5180.00	117.6 PK			2.20 V	290	79.0	38.6
4	*5180.00	108.3 AV			2.20 V	290	69.7	38.6
5	#10360.00	61.6 PK	68.2	-6.6	1.84 V	185	46.3	15.3

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 40：5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	116.2 PK			1.85 H	266	77.7	38.5
2	*5200.00	106.8 AV			1.85 H	266	68.3	38.5
3	#10400.00	58.7 PK	68.2	-9.5	1.94 H	180	43.6	15.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	118.0 PK			2.20 V	272	79.5	38.5
2	*5200.00	108.4 AV			2.20 V	272	69.9	38.5
3	#10400.00	62.2 PK	68.2	-6.0	1.75 V	163	47.1	15.1

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 48：5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.8 PK	74.0	-12.2	1.84 H	255	53.7	8.1
2	5150.00	50.2 AV	54.0	-3.8	1.84 H	255	42.1	8.1
3	*5240.00	116.3 PK			1.84 H	255	77.9	38.4
4	*5240.00	107.1 AV			1.84 H	255	68.7	38.4
5	#10480.00	48.3 PK	68.2	-19.9	1.92 H	188	33.4	14.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.3 PK	74.0	-10.7	2.30 V	291	55.2	8.1
2	5150.00	52.6 AV	54.0	-1.4	2.30 V	291	44.5	8.1
3	*5240.00	117.8 PK			2.30 V	291	79.4	38.4
4	*5240.00	108.6 AV			2.30 V	291	70.2	38.4
5	#10480.00	51.5 PK	68.2	-16.7	1.75 V	179	36.6	14.9

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	116.2 PK			1.94 H	266	77.7	38.5
2	*5260.00	105.3 AV			1.94 H	266	66.8	38.5
3	5350.00	58.5 PK	74.0	-15.5	1.94 H	266	50.7	7.8
4	5350.00	47.7 AV	54.0	-6.3	1.94 H	266	39.9	7.8
5	#10520.00	58.3 PK	68.2	-9.9	1.85 H	179	43.5	14.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	117.5 PK			1.71 V	313	79.0	38.5
2	*5260.00	106.6 AV			1.71 V	313	68.1	38.5
3	5350.00	60.3 PK	74.0	-13.7	1.71 V	313	52.5	7.8
4	5350.00	49.1 AV	54.0	-4.9	1.71 V	313	41.3	7.8
5	#10520.00	57.8 PK	68.2	-10.4	1.95 V	176	43.0	14.8

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	116.9 PK			1.84 H	158	78.6	38.3
2	*5300.00	107.0 AV			1.84 H	158	68.7	38.3
3	10600.00	58.6 PK	74.0	-15.4	1.75 H	174	43.6	15.0
4	10600.00	44.4 AV	54.0	-9.6	1.75 H	174	29.4	15.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	118.6 PK			1.69 V	320	111.0	7.6
2	*5300.00	108.5 AV			1.69 V	320	100.9	7.6
3	10600.00	63.6 PK	74.0	-10.4	1.75 V	177	48.6	15.0
4	10600.00	48.5 AV	54.0	-5.5	1.75 V	177	33.5	15.0

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	114.8 PK			1.85 H	265	76.4	38.4
2	*5320.00	103.7 AV			1.85 H	265	65.3	38.4
3	5350.00	69.4 PK	74.0	-4.6	1.85 H	265	61.6	7.8
4	5350.00	51.9 AV	54.0	-2.1	1.85 H	265	44.1	7.8
5	10640.00	58.3 PK	74.0	-15.7	1.77 H	181	43.1	15.2
6	10640.00	44.1 AV	54.0	-9.9	1.77 H	181	28.9	15.2
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	116.3 PK			1.72 V	314	77.9	38.4
2	*5320.00	105.2 AV			1.72 V	314	66.8	38.4
3	5350.00	70.3 PK	74.0	-3.7	1.72 V	314	62.5	7.8
4	5350.00	53.0 AV	54.0	-1.0	1.72 V	314	45.2	7.8
5	10640.00	60.8 PK	74.0	-13.2	1.70 V	153	45.6	15.2
6	10640.00	46.7 AV	54.0	-7.3	1.70 V	153	31.5	15.2

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	60.3 PK	74.0	-13.7	2.11 H	262	52.4	7.9
2	5460.00	49.3 AV	54.0	-4.7	2.11 H	262	41.4	7.9
3	#5470.00	63.8 PK	68.2	-4.4	2.11 H	262	55.9	7.9
4	*5500.00	114.7 PK			2.11 H	262	76.0	38.7
5	*5500.00	104.3 AV			2.11 H	262	65.6	38.7
6	11000.00	59.3 PK	74.0	-14.7	1.81 H	233	43.7	15.6
7	11000.00	45.5 AV	54.0	-8.5	1.81 H	233	29.9	15.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.0 PK	74.0	-12.0	2.11 V	299	54.1	7.9
2	5460.00	50.5 AV	54.0	-3.5	2.11 V	299	42.6	7.9
3	#5470.00	67.2 PK	68.2	-1.0	2.11 V	299	59.3	7.9
4	*5500.00	116.3 PK			2.11 V	299	77.6	38.7
5	*5500.00	106.1 AV			2.11 V	299	67.4	38.7
6	11000.00	62.7 PK	74.0	-11.3	2.45 V	144	47.1	15.6
7	11000.00	48.6 AV	54.0	-5.4	2.45 V	144	33.0	15.6

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	118.5 PK			2.20 H	258	79.3	39.2
2	*5580.00	108.0 AV			2.20 H	258	68.8	39.2
3	11160.00	60.2 PK	74.0	-13.8	1.65 H	218	44.2	16.0
4	11160.00	47.2 AV	54.0	-6.8	1.65 H	218	31.2	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.0 PK			2.08 V	295	80.8	39.2
2	*5580.00	109.6 AV			2.08 V	295	70.4	39.2
3	11160.00	63.5 PK	74.0	-10.5	2.42 V	151	47.5	16.0
4	11160.00	49.9 AV	54.0	-4.1	2.42 V	151	33.9	16.0

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	114.5 PK			2.13 H	265	74.7	39.8
2	*5700.00	104.1 AV			2.13 H	265	64.3	39.8
3	#5725.00	64.1 PK	68.2	-4.1	2.13 H	265	54.9	9.2
4	11400.00	60.1 PK	74.0	-13.9	1.71 H	242	44.2	15.9
5	11400.00	46.2 AV	54.0	-7.8	1.71 H	242	30.3	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.1 PK			2.18 V	285	107.1	9.0
2	*5700.00	105.8 AV			2.18 V	285	96.8	9.0
3	#5725.00	67.1 PK	68.2	-1.1	2.18 V	285	57.9	9.2
4	11400.00	63.5 PK	74.0	-10.5	2.51 V	150	47.6	15.9
5	11400.00	49.3 AV	54.0	-4.7	2.51 V	150	33.4	15.9

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	58.0 PK	68.2	-10.2	2.10 H	277	50.1	7.9
2	*5720.00	118.5 PK			2.10 H	277	78.5	40.0
3	*5720.00	108.1 AV			2.10 H	277	68.1	40.0
4	#5850.00	60.2 PK	68.2	-8.0	2.10 H	277	50.6	9.6
5	11440.00	61.0 PK	74.0	-13.0	1.84 H	222	45.0	16.0
6	11440.00	47.8 AV	54.0	-6.2	1.84 H	222	31.8	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.2 PK	68.2	-10.0	2.03 V	285	50.3	7.9
2	*5720.00	120.0 PK			2.03 V	285	80.0	40.0
3	*5720.00	109.7 AV			2.03 V	285	69.7	40.0
4	#5850.00	60.8 PK	68.2	-7.4	2.03 V	285	51.2	9.6
5	11440.00	64.6 PK	74.0	-9.4	2.46 V	145	48.6	16.0
6	11440.00	50.7 AV	54.0	-3.3	2.46 V	145	34.7	16.0

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 149：5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.20	60.7 PK	68.2	-7.5	2.21 H	254	51.7	9.0
2	*5745.00	119.1 PK			2.21 H	254	78.9	40.2
3	*5745.00	108.8 AV			2.21 H	254	68.6	40.2
4	#5940.40	58.9 PK	68.2	-9.3	2.21 H	254	49.4	9.5
5	11490.00	59.6 PK	74.0	-14.4	1.75 H	236	43.5	16.1
6	11490.00	46.6 AV	54.0	-7.4	1.75 H	236	30.5	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.80	62.4 PK	68.2	-5.8	2.70 V	282	53.5	8.9
2	*5745.00	120.7 PK			2.70 V	282	80.5	40.2
3	*5745.00	110.5 AV			2.70 V	282	70.3	40.2
4	#5948.40	59.3 PK	68.2	-8.9	2.70 V	282	49.8	9.5
5	11490.00	63.5 PK	74.0	-10.5	2.19 V	144	47.4	16.1
6	11490.00	51.6 AV	54.0	-2.4	2.19 V	144	35.5	16.1

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 157：5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	#5642.80	59.2 PK	68.2	-9.0	2.14 H	255	50.2	9.0
2	*5785.00	119.3 PK			2.14 H	255	78.9	40.4
3	*5785.00	109.0 AV			2.14 H	255	68.6	40.4
4	#5976.00	60.6 PK	68.2	-7.6	2.14 H	255	51.1	9.5
5	11570.00	59.3 PK	74.0	-14.7	1.94 H	240	43.2	16.1
6	11570.00	46.0 AV	54.0	-8.0	1.94 H	240	29.9	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.40	59.0 PK	68.2	-9.2	2.75 V	275	50.0	9.0
2	*5785.00	121.0 PK			2.75 V	275	80.6	40.4
3	*5785.00	110.7 AV			2.75 V	275	70.3	40.4
4	#5930.40	59.2 PK	68.2	-9.0	2.75 V	275	49.7	9.5
5	11570.00	63.2 PK	74.0	-10.8	2.38 V	144	47.1	16.1
6	11570.00	51.0 AV	54.0	-3.0	2.38 V	144	34.9	16.1

Remarks:

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

RF Mode	802.11ac (VHT20)	Channel	CH 165：5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5631.20	58.7 PK	68.2	-9.5	2.26 H	259	49.8	8.9
2	*5825.00	119.2 PK			2.26 H	259	78.8	40.4
3	*5825.00	108.8 AV			2.26 H	259	68.4	40.4
4	#5928.00	62.4 PK	68.2	-5.8	2.26 H	259	52.9	9.5
5	11650.00	59.0 PK	74.0	-15.0	1.83 H	245	43.0	16.0
6	11650.00	45.8 AV	54.0	-8.2	1.83 H	245	29.8	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5634.00	58.9 PK	68.2	-9.3	2.91 V	294	50.0	8.9
2	*5825.00	121.0 PK			2.91 V	294	80.6	40.4
3	*5825.00	110.6 AV			2.91 V	294	70.2	40.4
4	#5928.80	61.3 PK	68.2	-6.9	2.91 V	294	51.8	9.5
5	11650.00	63.2 PK	74.0	-10.8	2.26 V	132	47.2	16.0
6	11650.00	50.8 AV	54.0	-3.2	2.26 V	132	34.8	16.0

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 38：5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	58.6 PK	74.0	-15.4	1.99 H	261	50.5	8.1
2	5150.00	48.0 AV	54.0	-6.0	1.99 H	261	39.9	8.1
3	*5190.00	105.7 PK			1.99 H	261	67.1	38.6
4	*5190.00	97.3 AV			1.99 H	261	58.7	38.6
5	#10380.00	58.5 PK	68.2	-9.7	1.85 H	177	43.3	15.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.5 PK	74.0	-12.5	2.00 V	306	53.4	8.1
2	5150.00	53.2 AV	54.0	-0.8	2.00 V	306	45.1	8.1
3	*5190.00	107.0 PK			2.00 V	306	68.4	38.6
4	*5190.00	98.7 AV			2.00 V	306	60.1	38.6
5	#10380.00	58.7 PK	68.2	-9.5	1.72 V	176	43.5	15.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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 (VHT40)	Channel	CH 46：5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	62.6 PK	74.0	-11.4	1.85 H	258	54.5	8.1
2	5150.00	50.7 AV	54.0	-3.3	1.85 H	258	42.6	8.1
3	*5230.00	114.0 PK			1.85 H	258	75.5	38.5
4	*5230.00	104.8 AV			1.85 H	258	66.3	38.5
5	#10460.00	58.0 PK	68.2	-10.2	1.77 H	185	43.1	14.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.2 PK	74.0	-7.8	2.01 V	315	58.1	8.1
2	**5150.00**	**53.5 AV**	**54.0**	**-0.5**	**2.01 V**	**315**	**45.4**	**8.1**
3	*5230.00	115.3 PK			2.01 V	315	76.8	38.5
4	*5230.00	106.2 AV			2.01 V	315	67.7	38.5
5	#10460.00	58.8 PK	68.2	-9.4	1.80 V	162	43.9	14.9

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 54：5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	113.2 PK			1.92 H	166	74.8	38.4
2	*5270.00	103.7 AV			1.92 H	166	65.3	38.4
3	5350.00	61.8 PK	74.0	-12.2	1.92 H	166	54.0	7.8
4	5350.00	48.5 AV	54.0	-5.5	1.92 H	166	40.7	7.8
5	#10540.00	58.6 PK	68.2	-9.6	1.96 H	182	43.7	14.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	114.4 PK			1.65 V	314	76.0	38.4
2	*5270.00	105.1 AV			1.65 V	314	66.7	38.4
3	5350.00	66.6 PK	74.0	-7.4	1.65 V	314	58.8	7.8
4	5350.00	51.8 AV	54.0	-2.2	1.65 V	314	44.0	7.8
5	#10540.00	58.6 PK	68.2	-9.6	1.86 V	179	43.7	14.9

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 62：5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	110.0 PK			1.92 H	265	71.6	38.4
2	*5310.00	100.9 AV			1.92 H	265	62.5	38.4
3	5350.00	60.4 PK	74.0	-13.6	1.92 H	265	52.6	7.8
4	5350.00	48.2 AV	54.0	-5.8	1.92 H	265	40.4	7.8
5	10620.00	58.2 PK	74.0	-15.8	1.84 H	177	43.2	15.0
6	10620.00	44.2 AV	54.0	-9.8	1.84 H	177	29.2	15.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	111.2 PK			1.74 V	318	72.8	38.4
2	*5310.00	102.2 AV			1.74 V	318	63.8	38.4
3	5350.00	63.0 PK	74.0	-11.0	1.74 V	318	55.2	7.8
4	5350.00	52.8 AV	54.0	-1.2	1.74 V	318	45.0	7.8
5	10620.00	58.7 PK	74.0	-15.3	1.89 V	171	43.7	15.0
6	10620.00	44.2 AV	54.0	-9.8	1.89 V	171	29.2	15.0

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 102：5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	61.0 PK	74.0	-13.0	2.08 H	258	53.1	7.9
2	5460.00	48.1 AV	54.0	-5.9	2.08 H	258	40.2	7.9
3	#5470.00	65.7 PK	68.2	-2.5	2.08 H	258	57.8	7.9
4	*5510.00	109.7 PK			2.08 H	258	70.9	38.8
5	*5510.00	99.6 AV			2.08 H	258	60.8	38.8
6	11020.00	58.8 PK	74.0	-15.2	1.84 H	226	43.1	15.7
7	11020.00	44.3 AV	54.0	-9.7	1.84 H	226	28.6	15.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	64.2 PK	74.0	-9.8	2.19 V	300	56.3	7.9
2	5460.00	49.0 AV	54.0	-5.0	2.19 V	300	41.1	7.9
3	#5470.00	67.0 PK	68.2	-1.2	2.19 V	300	59.1	7.9
4	*5510.00	111.2 PK			2.19 V	300	72.4	38.8
5	*5510.00	101.4 AV			2.19 V	300	62.6	38.8
6	11020.00	60.3 PK	74.0	-13.7	2.65 V	145	44.6	15.7
7	11020.00	47.0 AV	54.0	-7.0	2.65 V	145	31.3	15.7

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 110：5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Charles Hsiao		

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	65.6 PK	68.2	-2.6	2.00 H	250	57.7	7.9
2	*5550.00	113.0 PK			2.00 H	250	74.0	39.0
3	*5550.00	103.5 AV			2.00 H	250	64.5	39.0
4	11100.00	59.4 PK	74.0	-14.6	1.05 H	157	43.4	16.0
5	11100.00	45.1 AV	54.0	-8.9	1.05 H	157	29.1	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	67.0 PK	68.2	-1.2	2.11 V	287	59.1	7.9
2	*5550.00	115.0 PK			2.11 V	287	76.0	39.0
3	*5550.00	103.0 AV			2.11 V	287	64.0	39.0
4	11100.00	47.9 PK	74.0	-26.1	2.64 V	148	31.9	16.0
5	11100.00	45.1 AV	54.0	-8.9	2.64 V	148	29.1	16.0

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 134：5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	112.3 PK			2.22 H	260	72.6	39.7
2	*5670.00	102.2 AV			2.22 H	260	62.5	39.7
3	#5725.00	64.3 PK	68.2	-3.9	2.22 H	260	55.1	9.2
4	11340.00	59.4 PK	74.0	-14.6	1.70 H	223	43.5	15.9
5	11340.00	45.0 AV	54.0	-9.0	1.70 H	223	29.1	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	113.8 PK			2.11 V	288	74.1	39.7
2	*5670.00	103.9 AV			2.11 V	288	64.2	39.7
3	#5725.00	67.3 PK	68.2	-0.9	2.11 V	288	58.1	9.2
4	11340.00	61.0 PK	74.0	-13.0	2.45 V	130	45.1	15.9
5	11340.00	47.8 AV	54.0	-6.2	2.45 V	130	31.9	15.9

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 142：5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	59.6 PK	68.2	-8.6	2.08 H	260	51.7	7.9
2	*5710.00	114.3 PK			2.08 H	260	74.4	39.9
3	*5710.00	104.4 AV			2.08 H	260	64.5	39.9
4	#5850.00	64.2 PK	68.2	-4.0	2.08 H	260	54.6	9.6
5	11420.00	59.6 PK	74.0	-14.4	1.75 H	210	43.7	15.9
6	11420.00	46.6 AV	54.0	-7.4	1.75 H	210	30.7	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	61.1 PK	68.2	-7.1	2.18 V	274	53.2	7.9
2	*5710.00	116.3 PK			2.18 V	274	76.4	39.9
3	*5710.00	106.2 AV			2.18 V	274	66.3	39.9
4	#5850.00	66.9 PK	68.2	-1.3	2.18 V	274	57.3	9.6
5	11420.00	63.1 PK	74.0	-10.9	2.41 V	122	47.2	15.9
6	11420.00	49.7 AV	54.0	-4.3	2.41 V	122	33.8	15.9

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 151：5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.00	64.6 PK	68.2	-3.6	2.26 H	251	55.6	9.0
2	*5755.00	115.1 PK			2.26 H	251	74.8	40.3
3	*5755.00	105.3 AV			2.26 H	251	65.0	40.3
4	#5980.00	60.5 PK	68.2	-7.7	2.26 H	251	51.0	9.5
5	11510.00	58.6 PK	74.0	-15.4	1.85 H	238	42.5	16.1
6	11510.00	46.1 AV	54.0	-7.9	1.85 H	238	30.0	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5641.20	66.8 PK	68.2	-1.4	2.61 V	290	57.9	8.9
2	*5755.00	116.6 PK			2.61 V	290	76.3	40.3
3	*5755.00	106.8 AV			2.61 V	290	66.5	40.3
4	#5937.60	60.2 PK	68.2	-8.0	2.61 V	290	50.7	9.5
5	11510.00	62.6 PK	74.0	-11.4	2.30 V	140	46.5	16.1
6	11510.00	50.6 AV	54.0	-3.4	2.30 V	140	34.5	16.1

Remarks:

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

RF Mode	802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.00	61.8 PK	68.2	-6.4	2.26 H	258	52.9	8.9
2	*5795.00	116.4 PK			2.26 H	258	75.9	40.5
3	*5795.00	106.5 AV			2.26 H	258	66.0	40.5
4	#5934.80	64.3 PK	68.2	-3.9	2.26 H	258	54.8	9.5
5	11590.00	58.0 PK	74.0	-16.0	1.89 H	241	42.0	16.0
6	11590.00	45.5 AV	54.0	-8.5	1.89 H	241	29.5	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.00	63.4 PK	68.2	-4.8	2.92 V	284	54.4	9.0
2	*5795.00	118.0 PK			2.92 V	284	77.5	40.5
3	*5795.00	108.2 AV			2.92 V	284	67.7	40.5
4	#5931.20	67.0 PK	68.2	-1.2	2.92 V	284	57.5	9.5
5	11590.00	63.0 PK	74.0	-11.0	2.24 V	147	47.0	16.0
6	11590.00	51.1 AV	54.0	-2.9	2.24 V	147	35.1	16.0

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 42：5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.7 PK	74.0	-10.3	1.77 H	268	55.6	8.1
2	5150.00	51.6 AV	54.0	-2.4	1.77 H	268	43.5	8.1
3	*5210.00	103.8 PK			1.77 H	268	65.3	38.5
4	*5210.00	94.5 AV			1.77 H	268	56.0	38.5
5	#10420.00	57.8 PK	68.2	-10.4	1.81 H	182	42.8	15.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.4 PK	74.0	-8.6	2.04 V	308	57.3	8.1
2	5150.00	53.2 AV	54.0	-0.8	2.04 V	308	45.1	8.1
3	*5210.00	105.6 PK			2.04 V	308	67.1	38.5
4	*5210.00	96.0 AV			2.04 V	308	57.5	38.5
5	#10420.00	58.6 PK	68.2	-9.6	1.85 V	164	43.6	15.0

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 58：5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	108.0 PK			1.80 H	261	69.6	38.4
2	*5290.00	98.8 AV			1.80 H	261	60.4	38.4
3	5350.00	63.0 PK	74.0	-11.0	1.80 H	261	55.2	7.8
4	5350.00	51.5 AV	54.0	-2.5	1.80 H	261	43.7	7.8
5	#10580.00	58.0 PK	68.2	-10.2	1.88 H	182	43.1	14.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	109.4 PK			1.84 V	320	71.0	38.4
2	*5290.00	100.2 AV			1.84 V	320	61.8	38.4
3	5350.00	65.2 PK	74.0	-8.8	1.84 V	320	57.4	7.8
4	5350.00	53.3 AV	54.0	-0.7	1.84 V	320	45.5	7.8
5	#10580.00	59.3 PK	68.2	-8.9	1.80 V	170	44.4	14.9

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 106：5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	64.3 PK	74.0	-9.7	2.16 H	266	56.4	7.9
2	5460.00	52.5 AV	54.0	-1.5	2.16 H	266	44.6	7.9
3	#5470.00	65.5 PK	68.2	-2.7	2.16 H	266	57.6	7.9
4	*5530.00	106.0 PK			2.16 H	266	67.2	38.8
5	*5530.00	96.0 AV			2.16 H	266	57.2	38.8
6	#5725.00	60.8 PK	68.2	-7.4	2.16 H	266	51.6	9.2
7	11060.00	58.3 PK	74.0	-15.7	1.84 H	230	42.5	15.8
8	11060.00	44.2 AV	54.0	-9.8	1.84 H	230	28.4	15.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	64.8 PK	74.0	-9.2	2.26 V	289	56.9	7.9
2	5460.00	52.9 AV	54.0	-1.1	2.26 V	289	45.0	7.9
3	#5470.00	67.3 PK	68.2	-0.9	2.26 V	289	59.4	7.9
4	*5530.00	107.7 PK			2.26 V	289	68.9	38.8
5	*5530.00	97.8 AV			2.26 V	289	59.0	38.8
6	#5725.00	61.1 PK	68.2	-7.1	2.26 V	289	51.9	9.2
7	11060.00	59.8 PK	74.0	-14.2	2.41 V	145	44.0	15.8
8	11060.00	46.8 AV	54.0	-7.2	2.41 V	145	31.0	15.8

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 122：5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.4 PK	74.0	-14.6	2.11 H	260	51.5	7.9
2	5460.00	47.0 AV	54.0	-7.0	2.11 H	260	39.1	7.9
3	#5470.00	61.1 PK	68.2	-7.1	2.11 H	260	53.2	7.9
4	*5610.00	111.4 PK			2.11 H	260	72.1	39.3
5	*5610.00	101.2 AV			2.11 H	260	61.9	39.3
6	#5725.00	66.2 PK	68.2	-2.0	2.11 H	260	57.0	9.2
7	11220.00	59.2 PK	74.0	-14.8	1.80 H	210	43.2	16.0
8	11220.00	45.1 AV	54.0	-8.9	1.80 H	210	29.1	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	2.21 V	284	51.9	7.9
2	5460.00	47.2 AV	54.0	-6.8	2.21 V	284	39.3	7.9
3	#5470.00	61.6 PK	68.2	-6.6	2.21 V	284	53.7	7.9
4	*5610.00	113.0 PK			2.21 V	284	73.7	39.3
5	*5610.00	102.9 AV			2.21 V	284	63.6	39.3
6	#5725.00	67.2 PK	68.2	-1.0	2.21 V	284	58.0	9.2
7	11220.00	60.6 PK	74.0	-13.4	2.40 V	139	44.6	16.0
8	11220.00	47.9 AV	54.0	-6.1	2.40 V	139	31.9	16.0

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 138：5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

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	58.3 PK	68.2	-9.9	2.24 H	279	50.4	7.9
2	*5690.00	113.0 PK			2.24 H	279	73.2	39.8
3	*5690.00	102.8 AV			2.24 H	279	63.0	39.8
4	#5850.00	65.1 PK	68.2	-3.1	2.24 H	279	55.5	9.6
5	11380.00	60.1 PK	74.0	-13.9	1.70 H	221	44.3	15.8
6	11380.00	45.9 AV	54.0	-8.1	1.70 H	221	30.1	15.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	59.5 PK	68.2	-8.7	2.30 V	286	51.6	7.9
2	*5690.00	114.6 PK			2.30 V	286	74.8	39.8
3	*5690.00	104.5 AV			2.30 V	286	64.7	39.8
4	#5850.00	66.8 PK	68.2	-1.4	2.30 V	286	57.2	9.6
5	11380.00	61.6 PK	74.0	-12.4	2.41 V	146	45.8	15.8
6	11380.00	48.8 AV	54.0	-5.2	2.41 V	146	33.0	15.8

Remarks:

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

RF Mode	802.11ac (VHT80)	Channel	CH 155：5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 67 % RH
Tested By	Wade Huang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5646.80	62.6 PK	68.2	-5.6	2.21 H	258	53.6	9.0
2	*5775.00	112.3 PK			2.21 H	258	72.0	40.3
3	*5775.00	102.5 AV			2.21 H	258	62.2	40.3
4	#5931.60	61.7 PK	68.2	-6.5	2.21 H	258	52.2	9.5
5	11550.00	57.3 PK	74.0	-16.7	1.81 H	235	41.2	16.1
6	11550.00	45.0 AV	54.0	-9.0	1.81 H	235	28.9	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5637.60	66.9 PK	68.2	-1.3	2.92 V	181	58.0	8.9
2	*5775.00	114.0 PK			2.92 V	281	73.7	40.3
3	*5775.00	104.2 AV			2.92 V	281	63.9	40.3
4	#5928.80	63.5 PK	68.2	-4.7	2.92 V	181	54.0	9.5
5	11550.00	61.1 PK	74.0	-12.9	2.16 V	135	45.0	16.1
6	11550.00	50.9 AV	54.0	-3.1	2.16 V	135	34.8	16.1

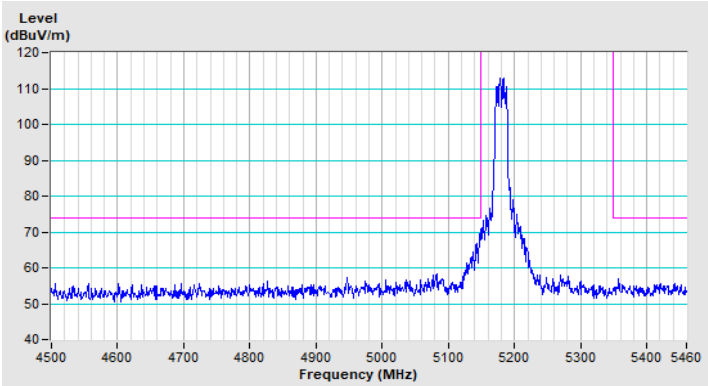
Remarks:

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

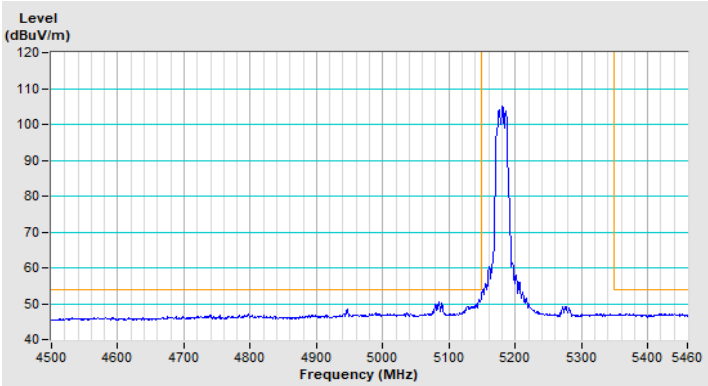
Plot of Band Edge

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

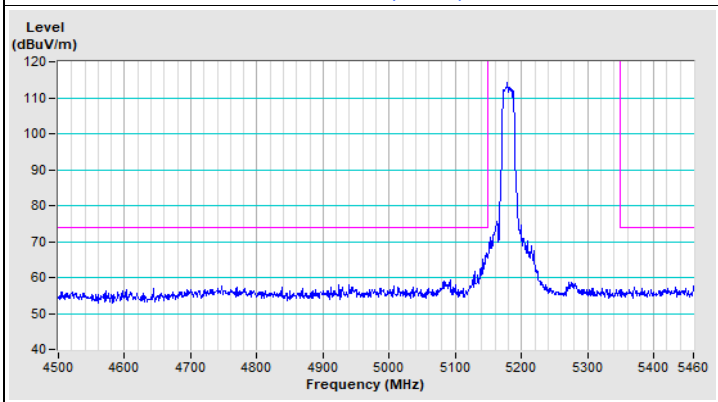
802.11a Channel 36



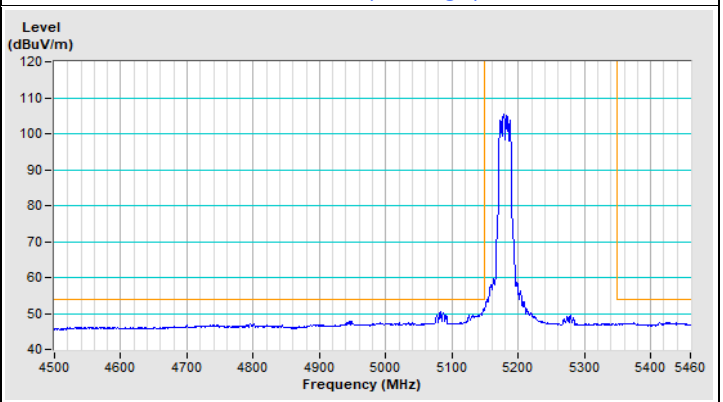
Horizontal (Peak)



Horizontal (Average)

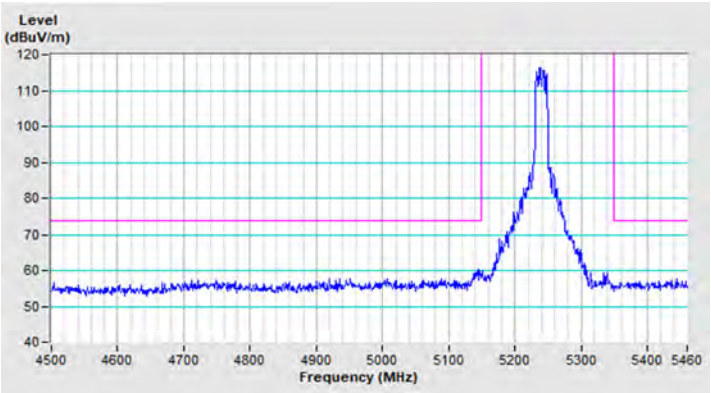


Vertical (Peak)

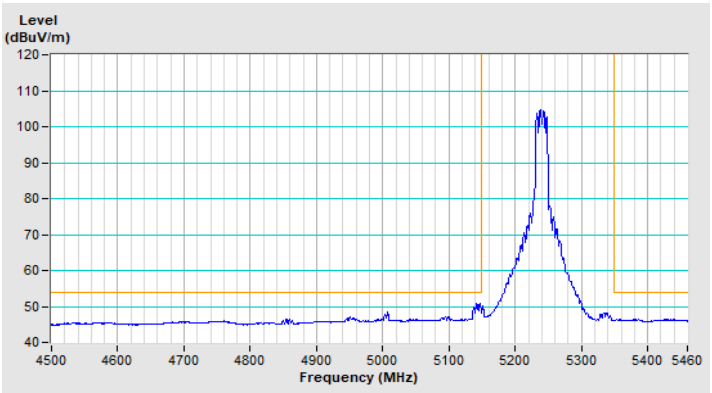


Vertical (Average)

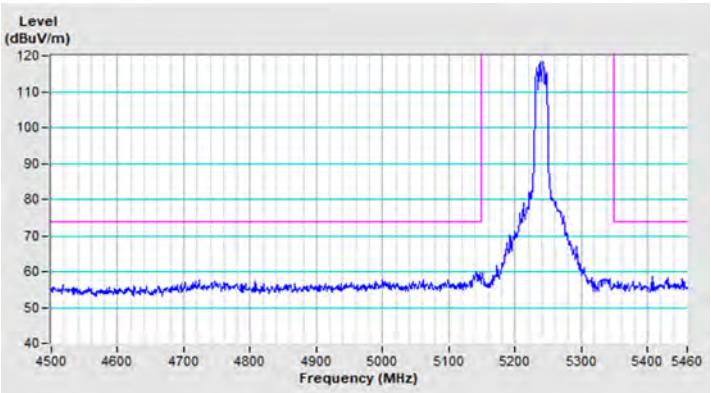
802.11a Channel 48



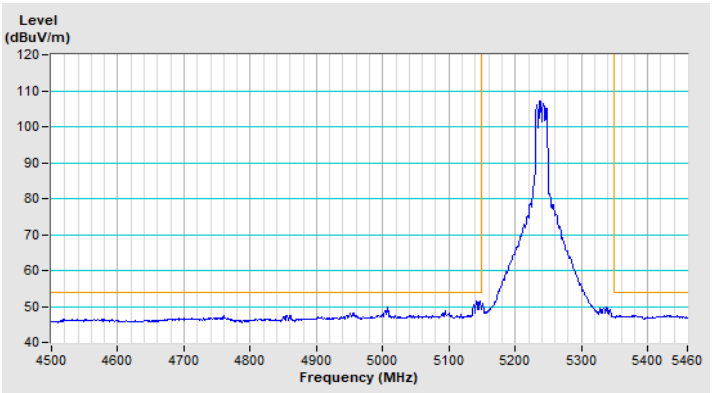
Horizontal (Peak)



Horizontal (Average)



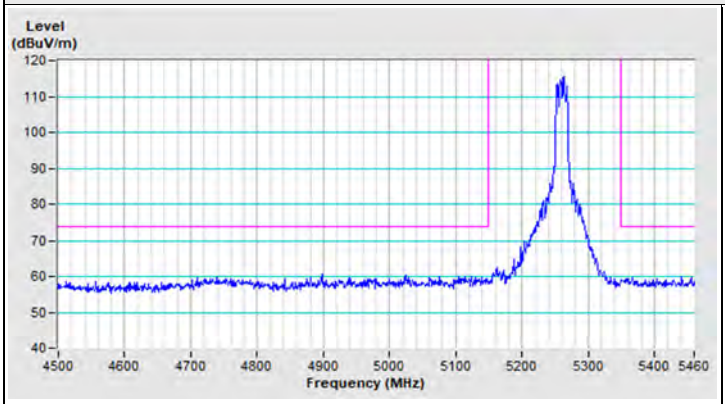
Vertical (Peak)



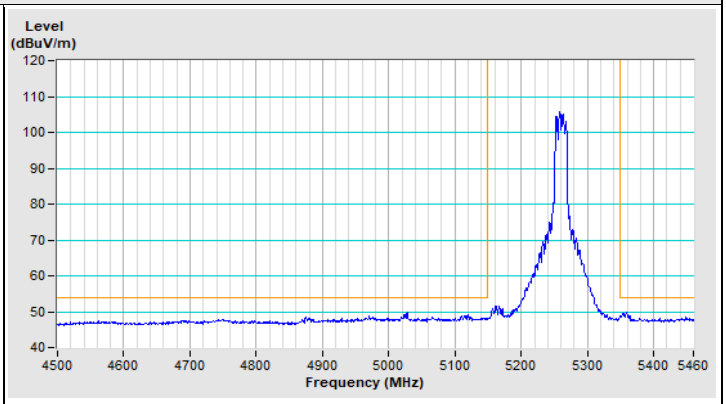
Vertical (Average)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

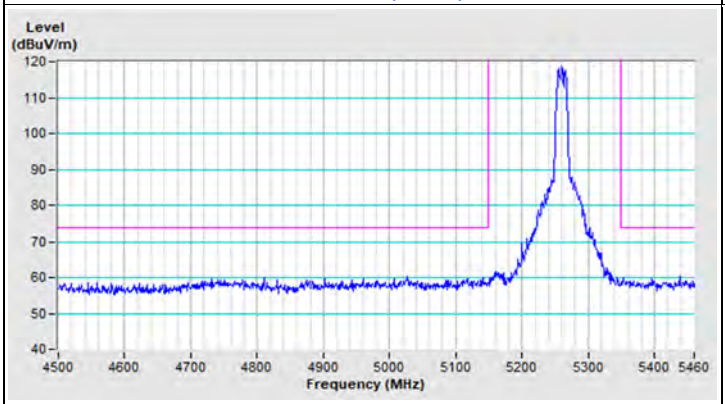
802.11a Channel 52



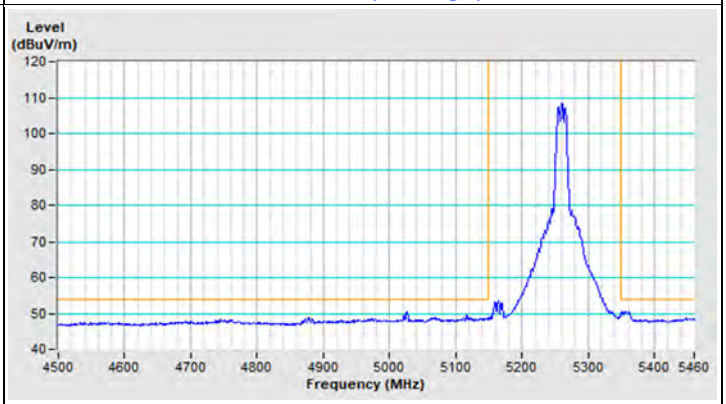
Horizontal (Peak)



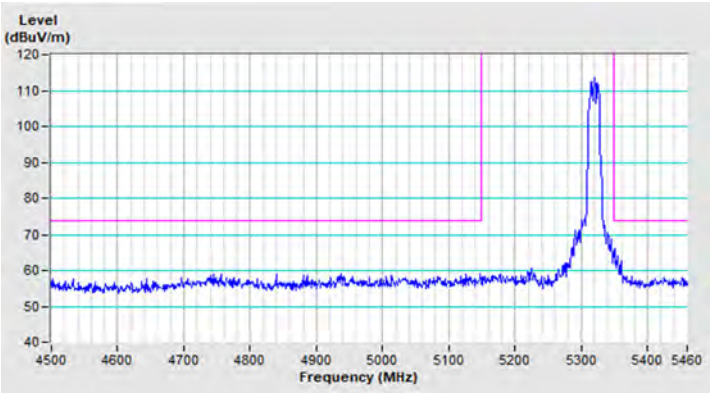
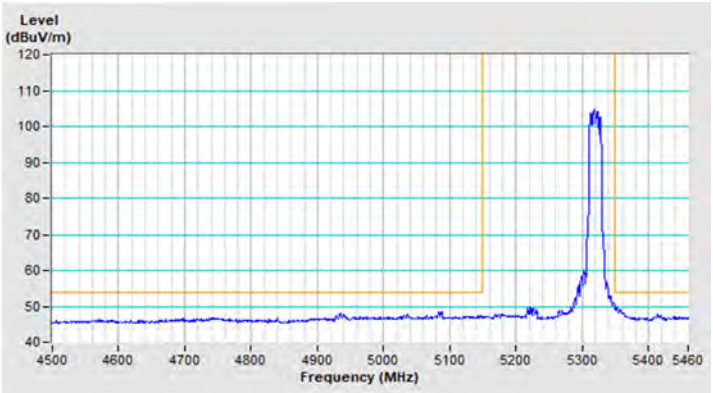
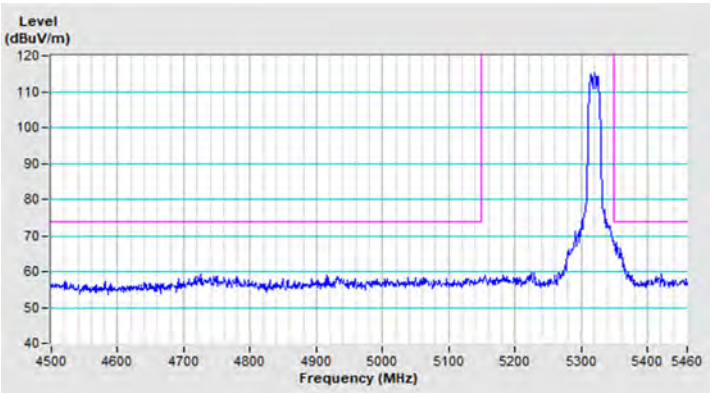
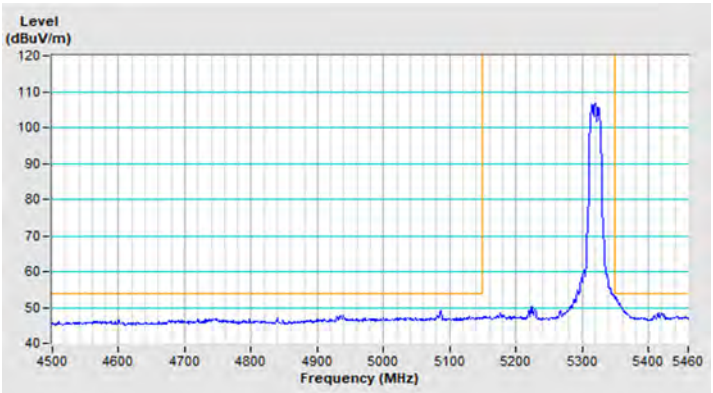
Horizontal (Average)



Vertical (Peak)

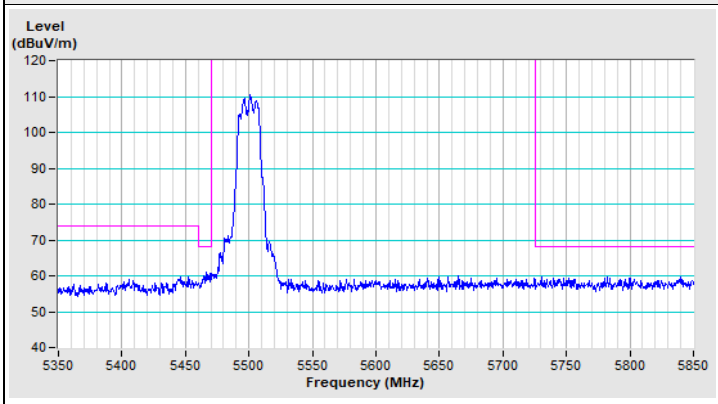


Vertical (Average)

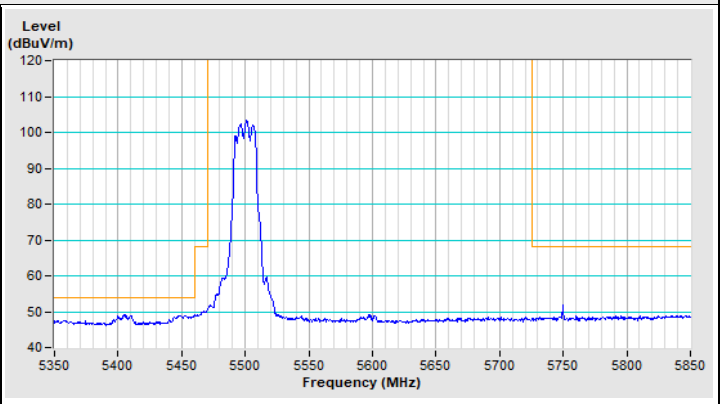
802.11a Channel 64	
	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)

Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

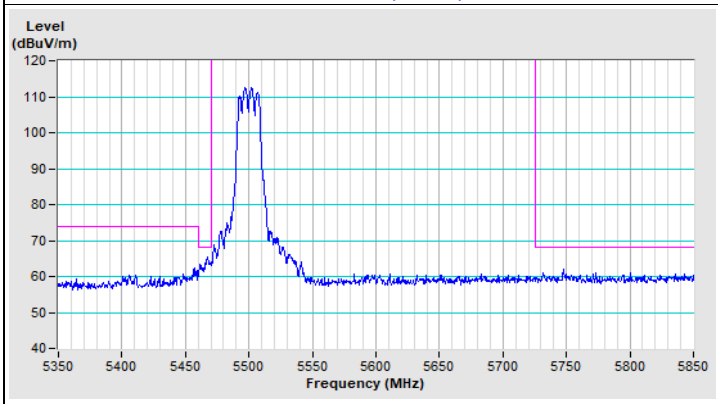
802.11a Channel 100



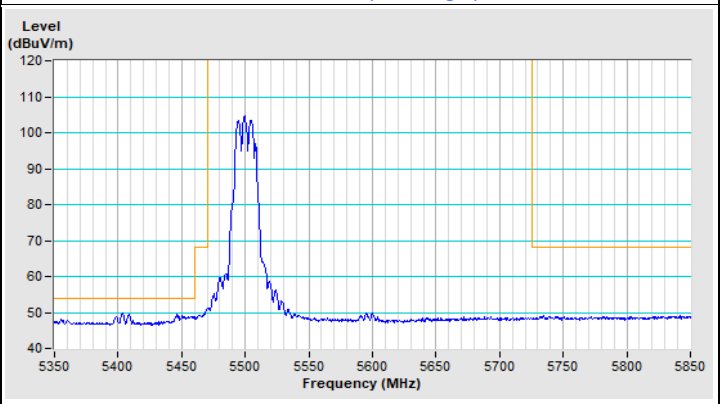
Horizontal (Peak)



Horizontal (Average)

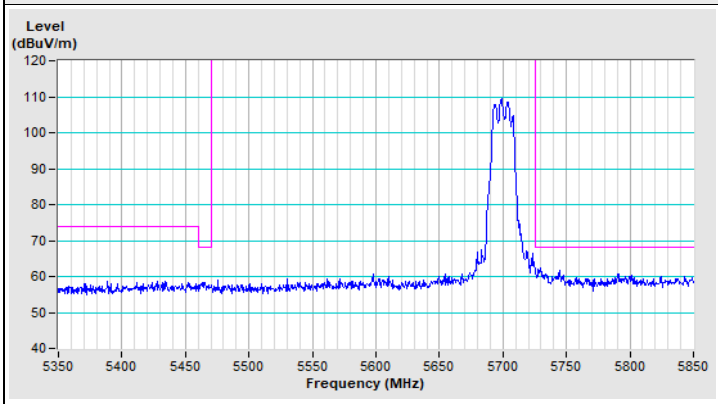


Vertical (Peak)

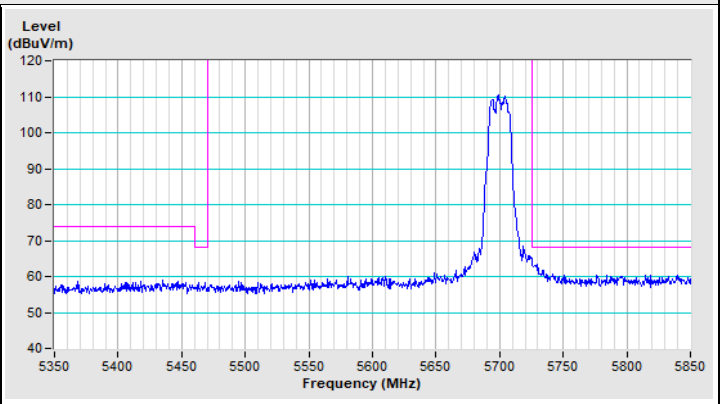


Vertical (Average)

802.11a Channel 140



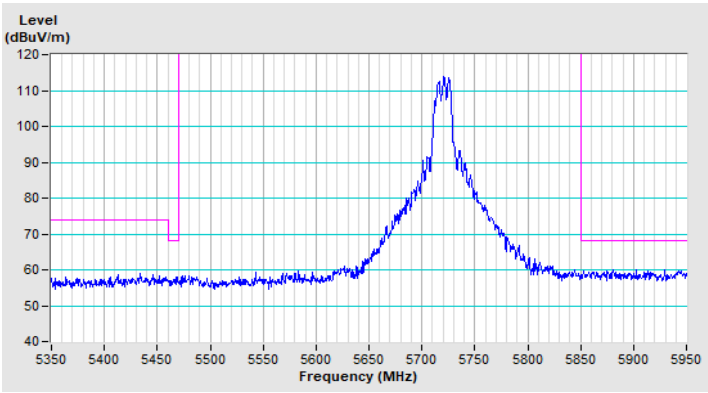
Horizontal (Peak)



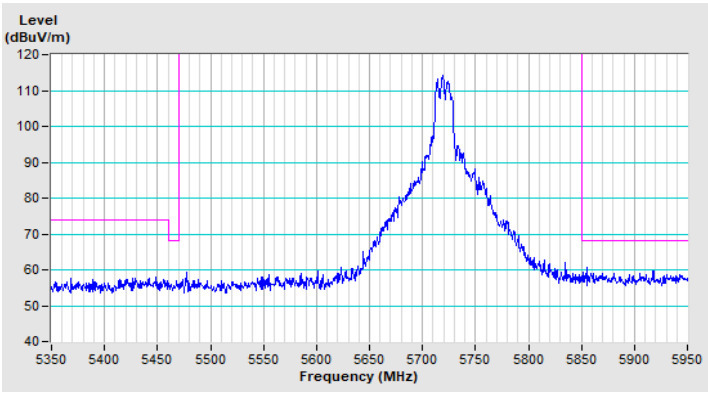
Vertical (Peak)

Frequency Range	5.35 GHz ~ 5.95 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11a Channel 144



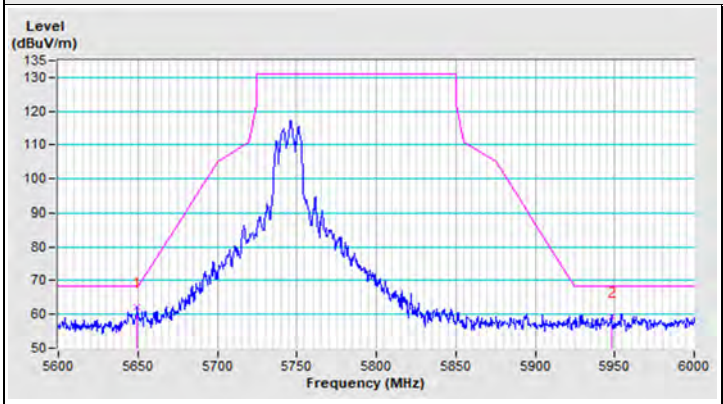
Horizontal (Peak)



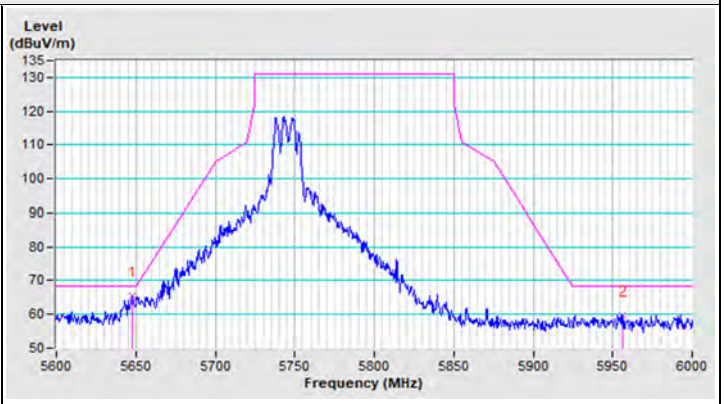
Vertical (Peak)

Frequency Range	5.6 GHz ~ 6 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11a Channel 149

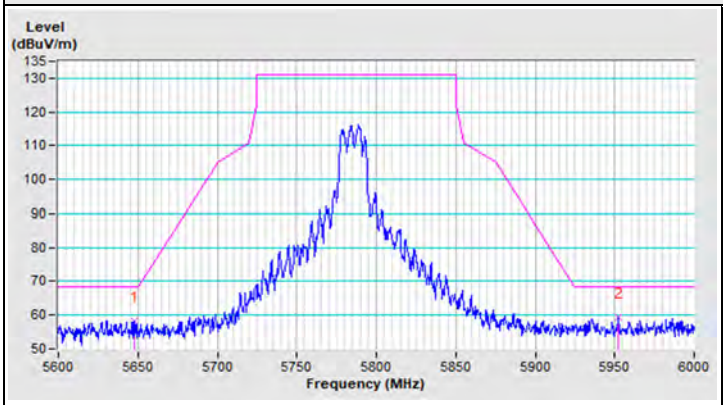


Horizontal (Peak)

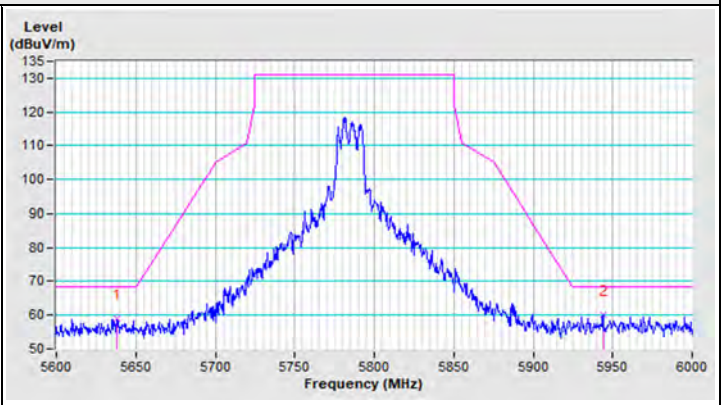


Vertical (Peak)

802.11a Channel 157

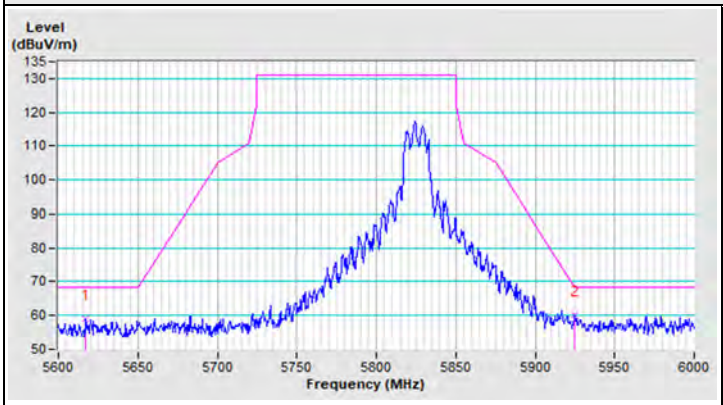


Horizontal (Peak)

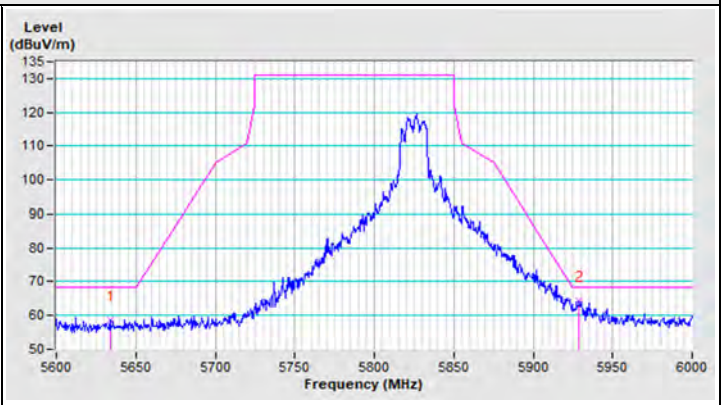


Vertical (Peak)

802.11a Channel 165



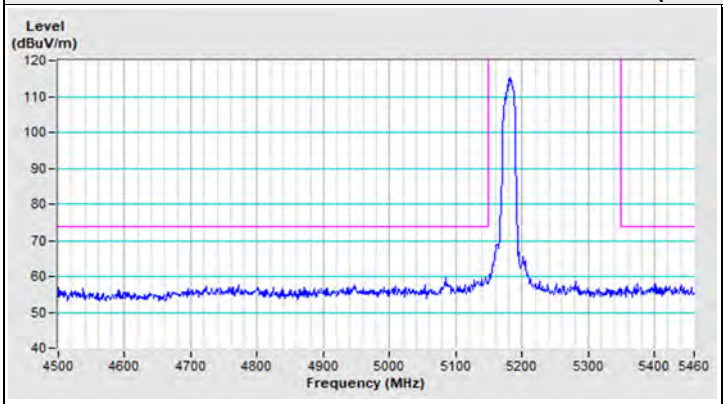
Horizontal (Peak)



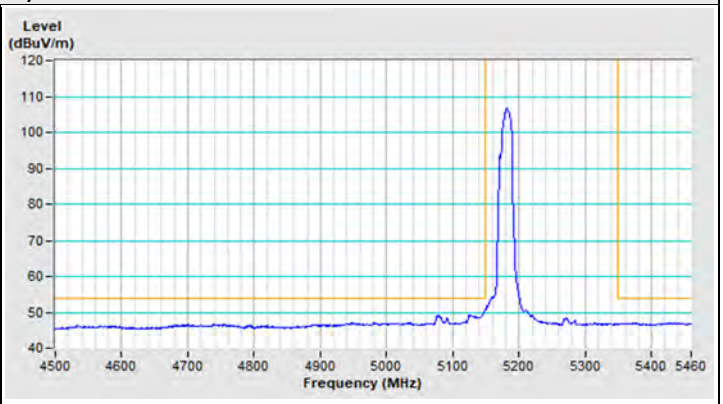
Vertical (Peak)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

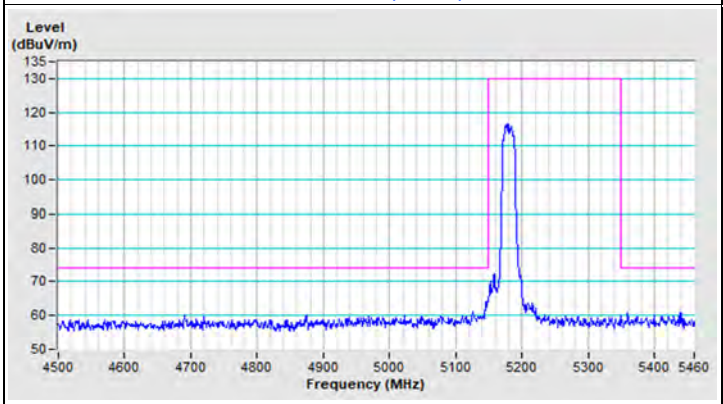
802.11ac (VHT20) Channel 36



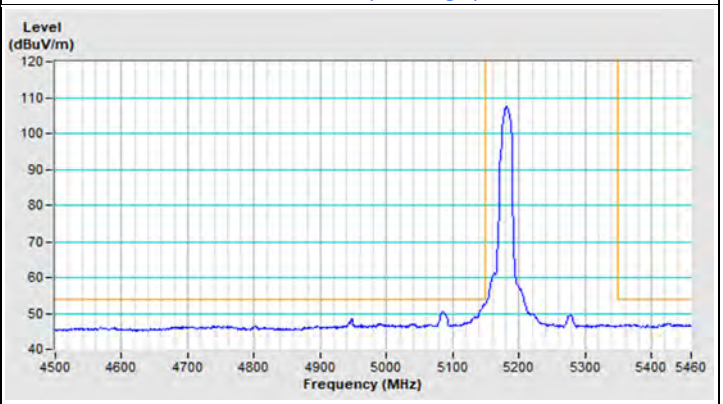
Horizontal (Peak)



Horizontal (Average)

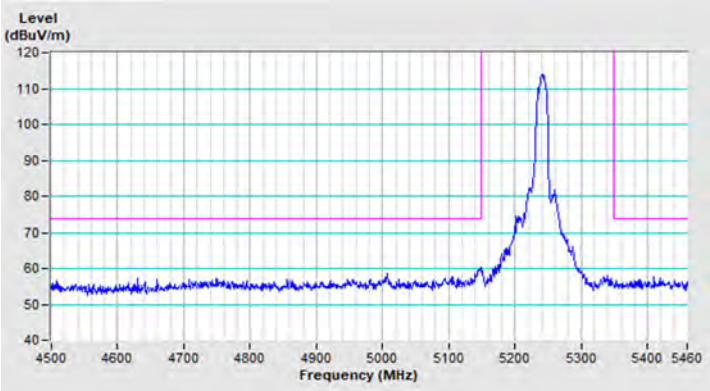


Vertical (Peak)

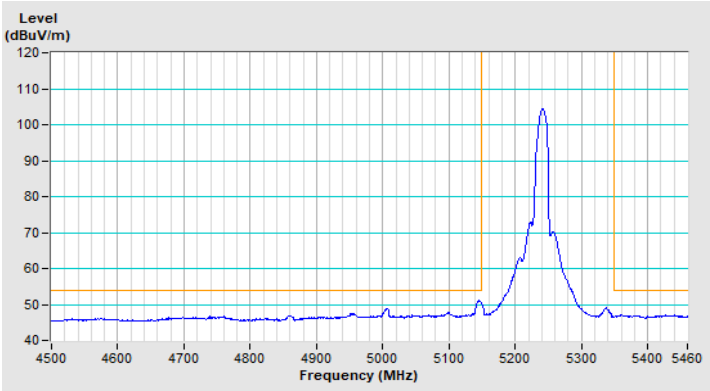


Vertical (Average)

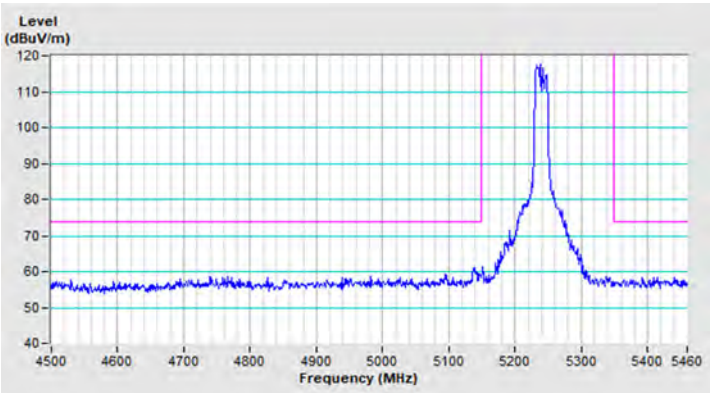
802.11ac (VHT20) Channel 48



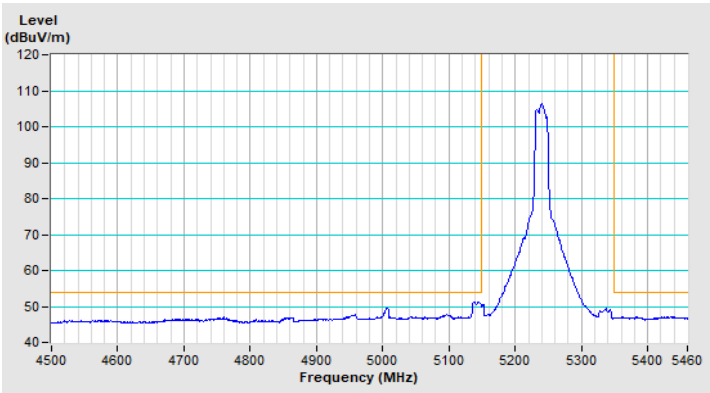
Horizontal (Peak)



Horizontal (Average)



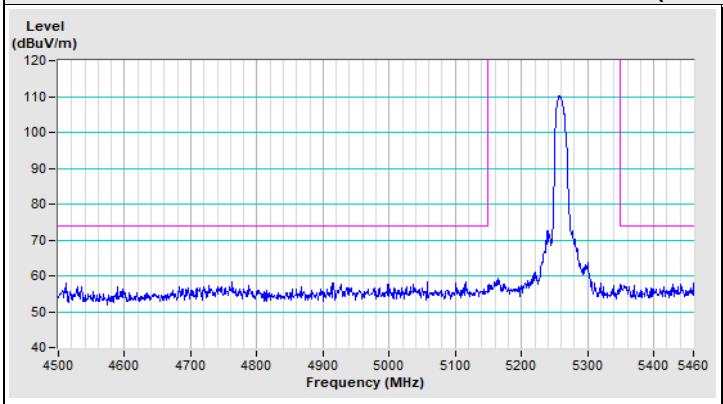
Vertical (Peak)



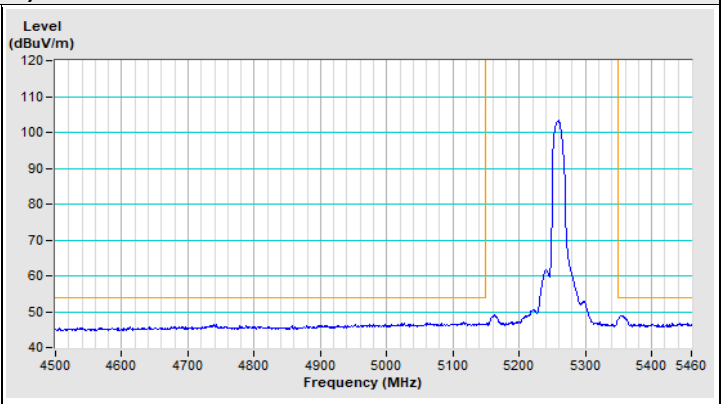
Vertical (Average)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

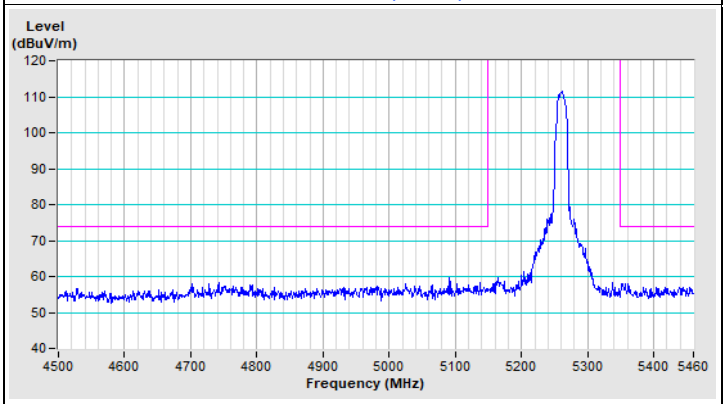
802.11ac (VHT20) Channel 52



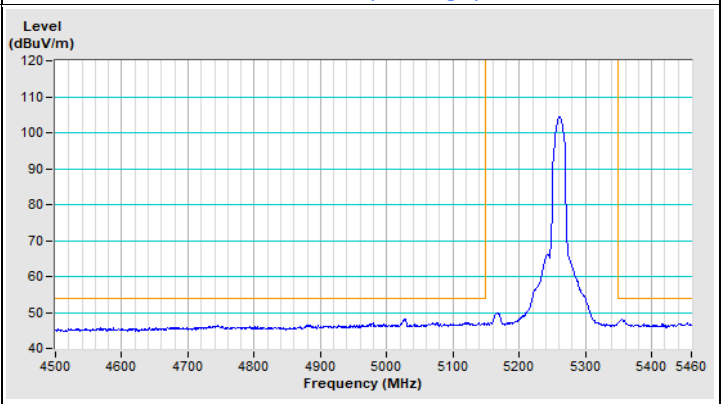
Horizontal (Peak)



Horizontal (Average)

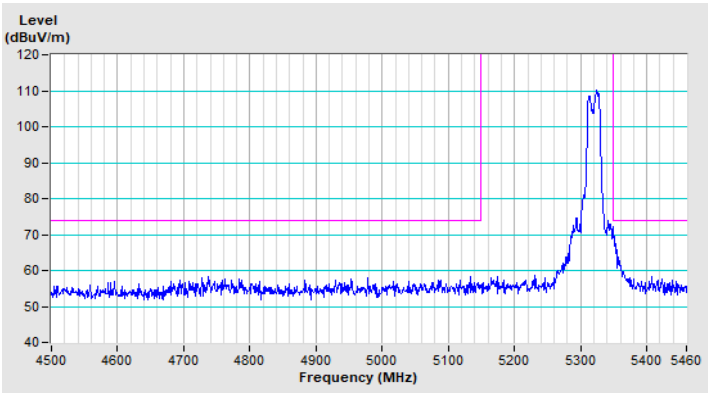


Vertical (Peak)

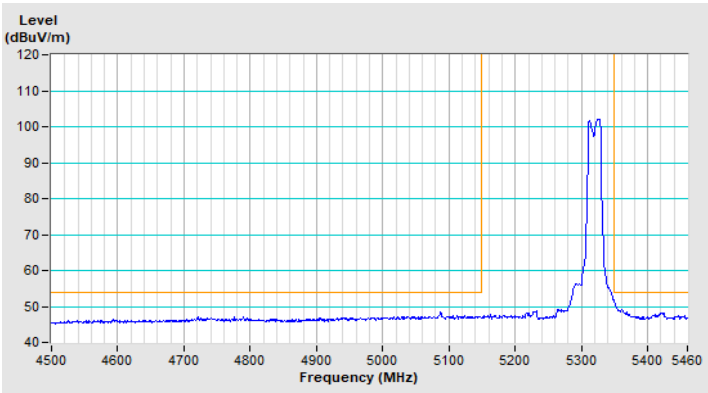


Vertical (Average)

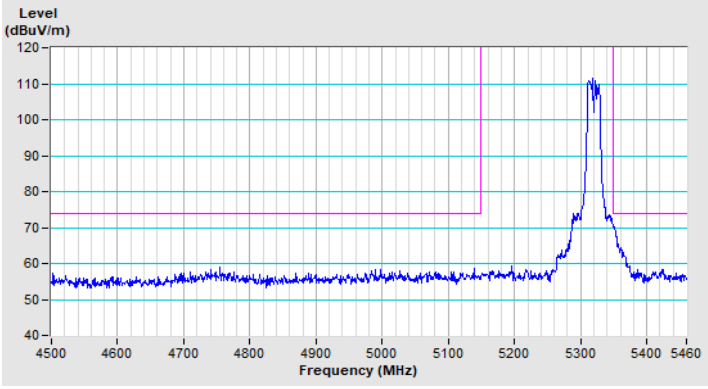
802.11ac (VHT20) Channel 64



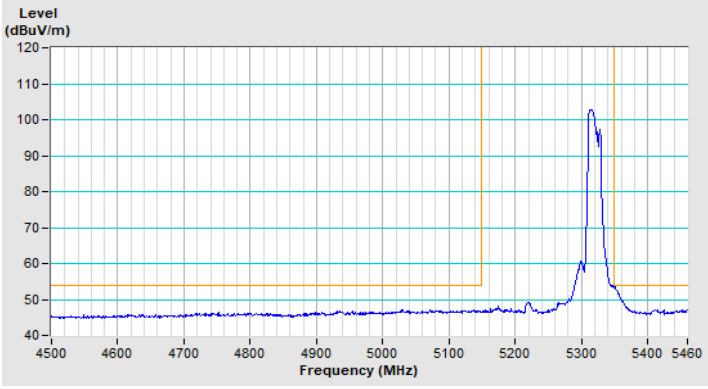
Horizontal (Peak)



Horizontal (Average)



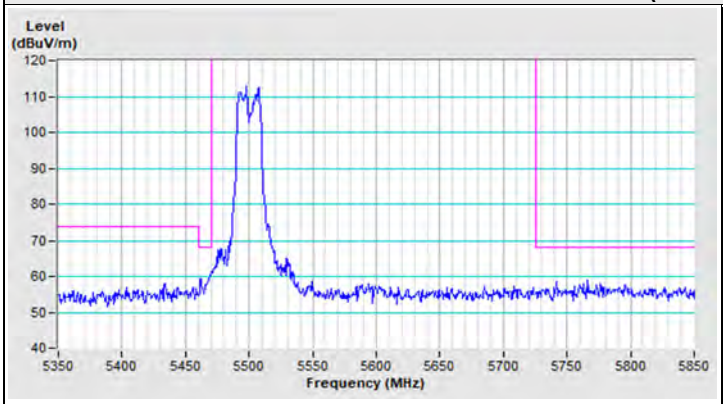
Vertical (Peak)



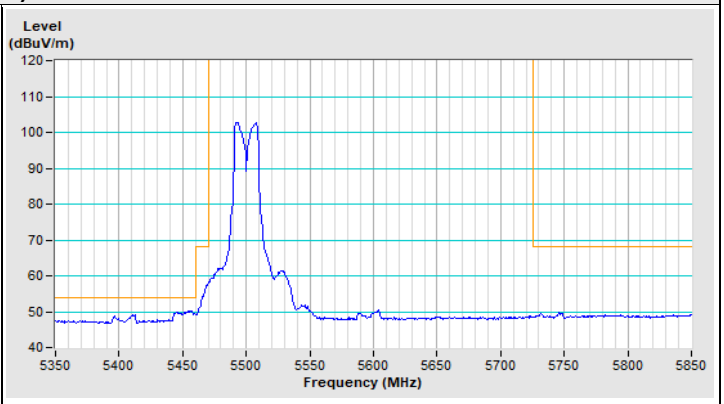
Vertical (Average)

Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak

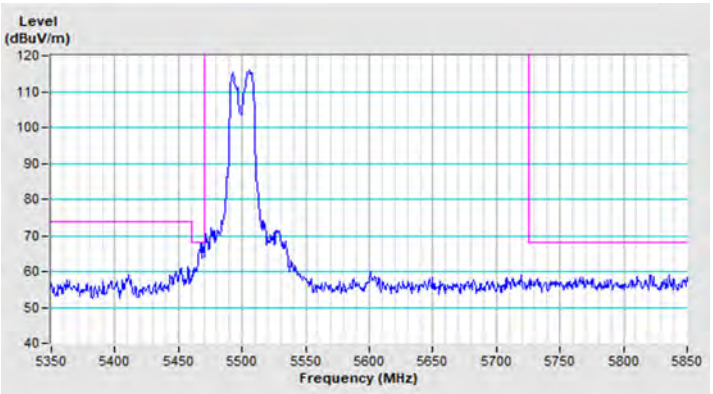
802.11ac (VHT20) Channel 100



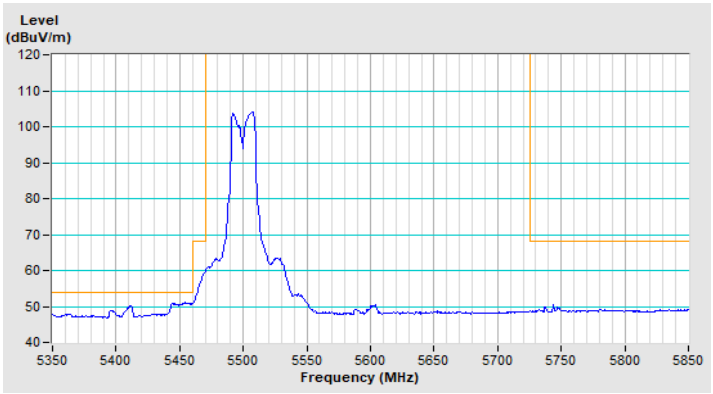
Horizontal (Peak)



Horizontal (Average)

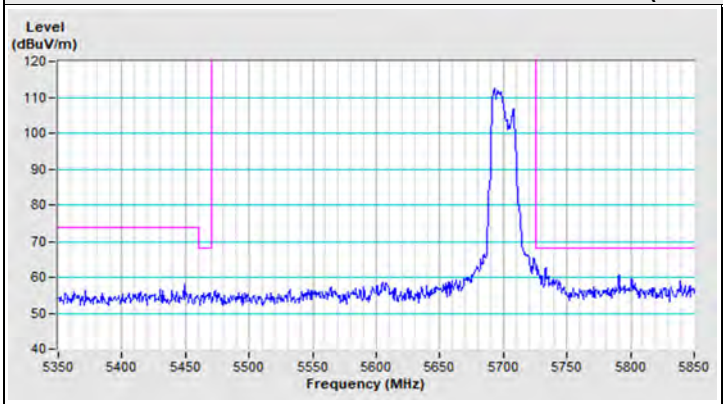


Vertical (Peak)

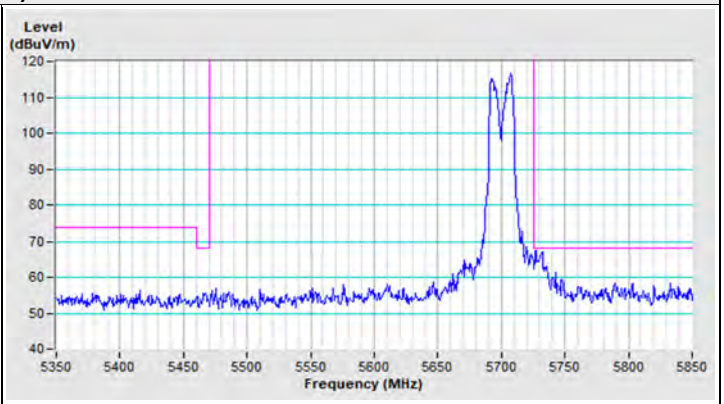


Vertical (Average)

802.11ac (VHT20) Channel 140



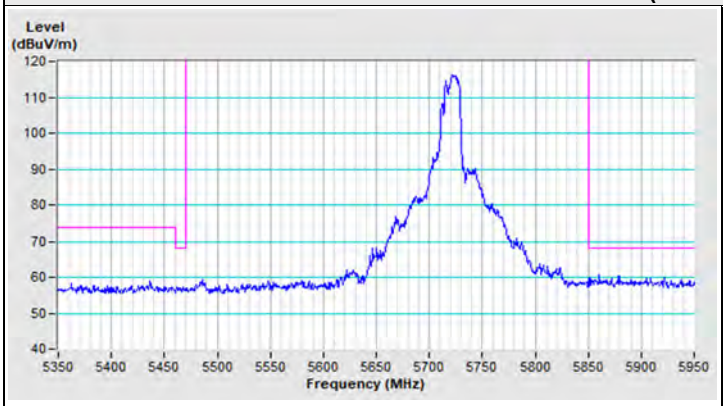
Horizontal (Peak)



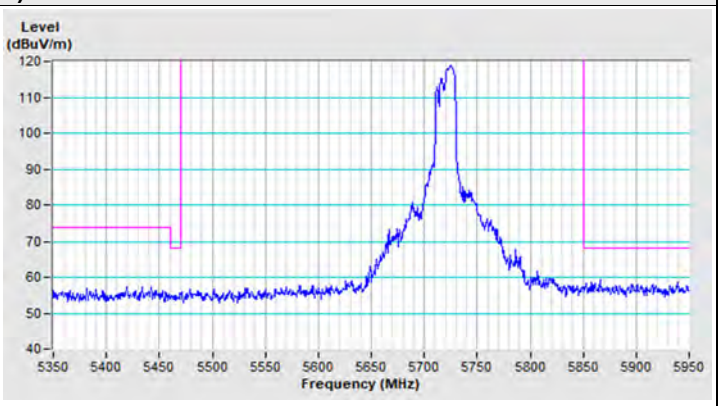
Vertical (Peak)

Frequency Range	5.35 GHz ~ 5.95 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT20) Channel 144



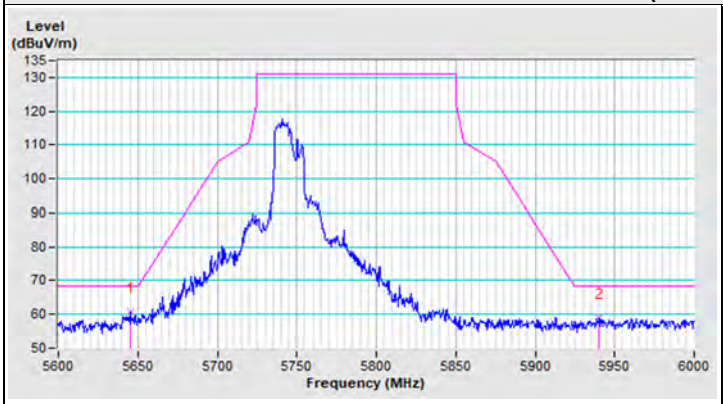
Horizontal (Peak)



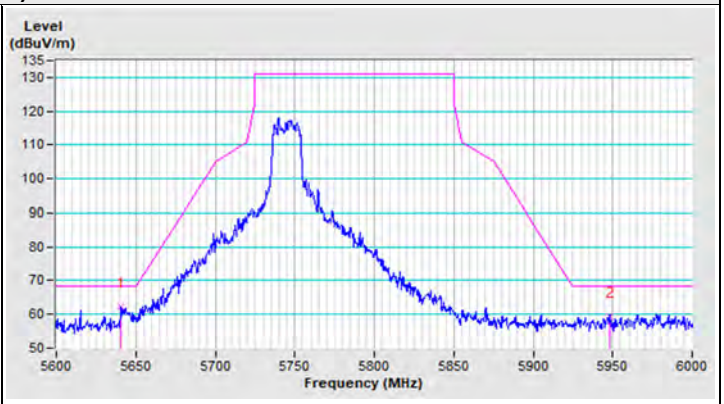
Vertical (Peak)

Frequency Range	5.6 GHz ~ 6 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT20) Channel 149

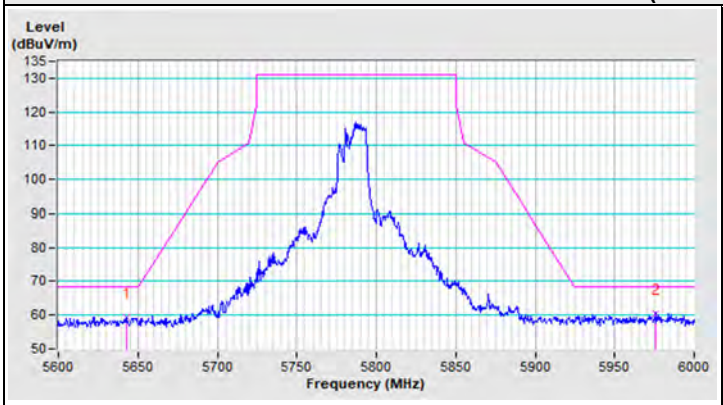


Horizontal (Peak)

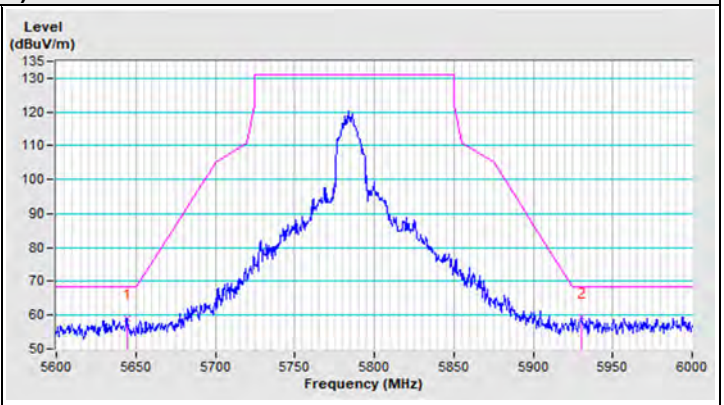


Vertical (Peak)

802.11ac (VHT20) Channel 157

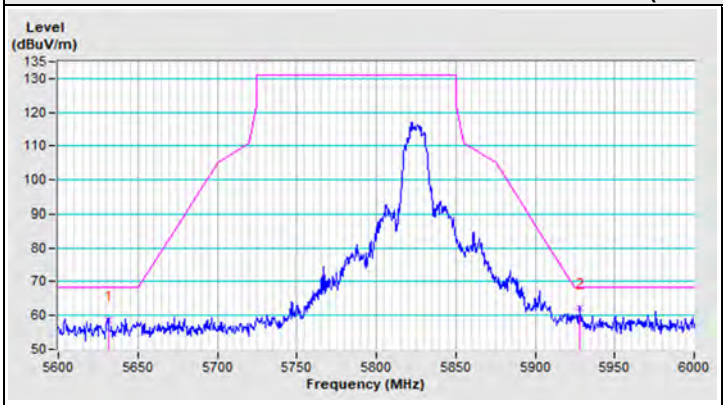


Horizontal (Peak)

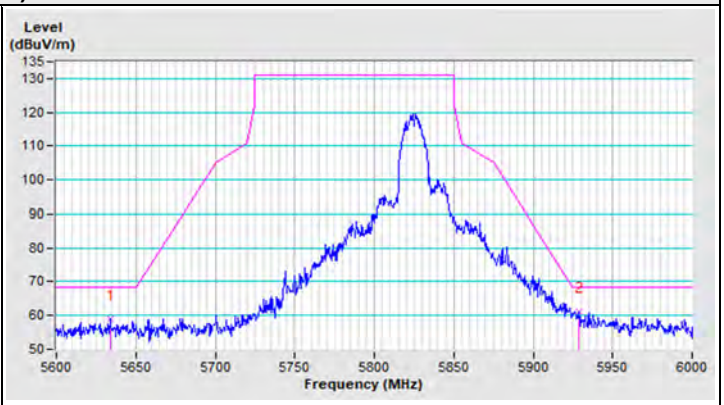


Vertical (Peak)

802.11ac (VHT20) Channel 165



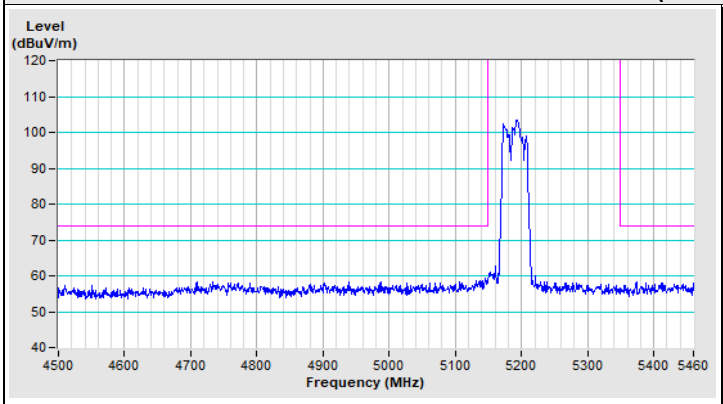
Horizontal (Peak)



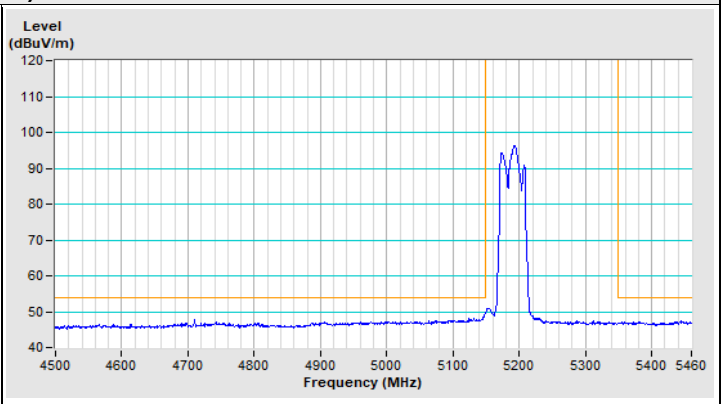
Vertical (Peak)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

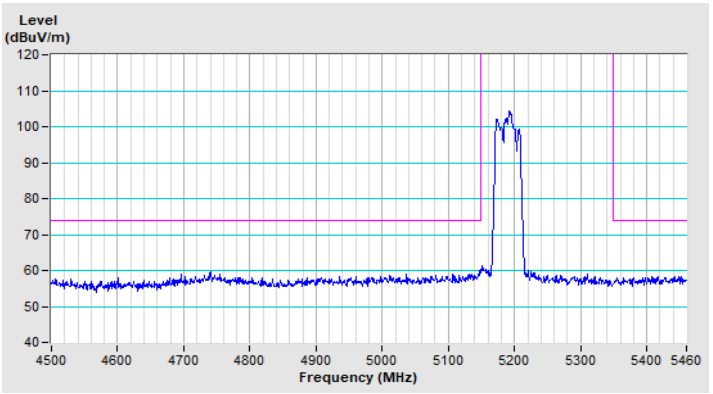
802.11ac (VHT40) Channel 38



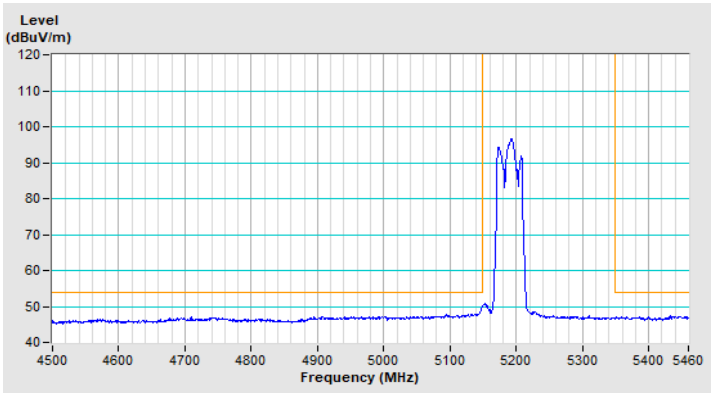
Horizontal (Peak)



Horizontal (Average)

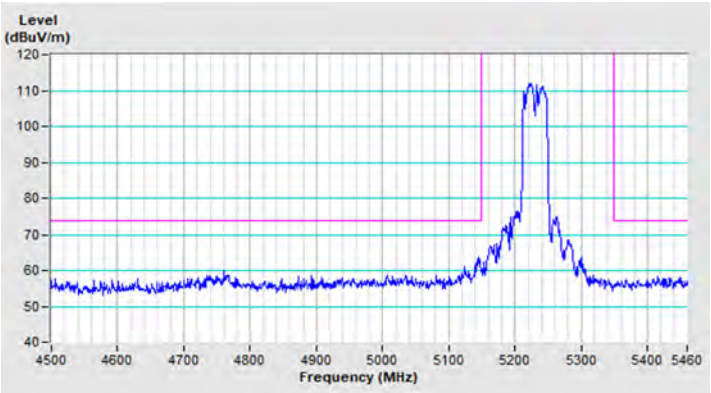


Vertical (Peak)

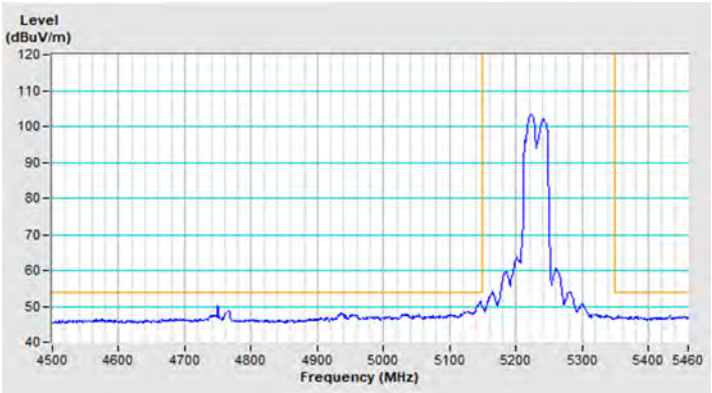


Vertical (Average)

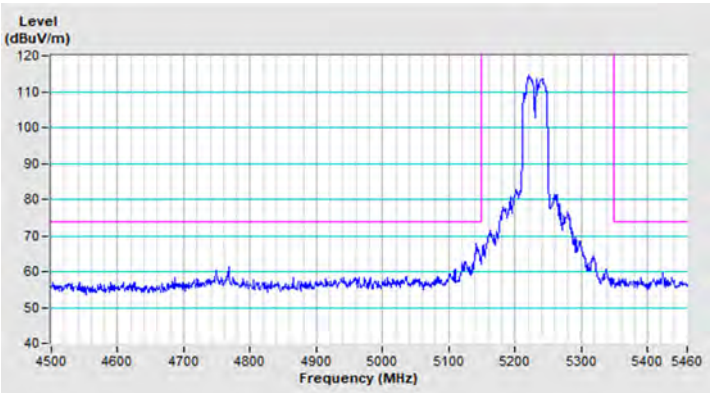
802.11ac (VHT40) Channel 46



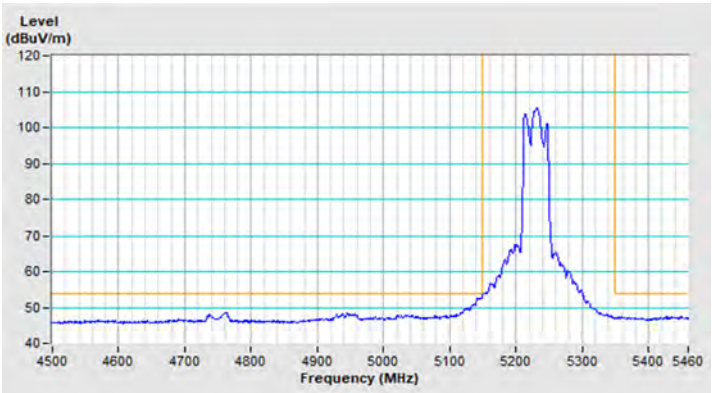
Horizontal (Peak)



Horizontal (Average)



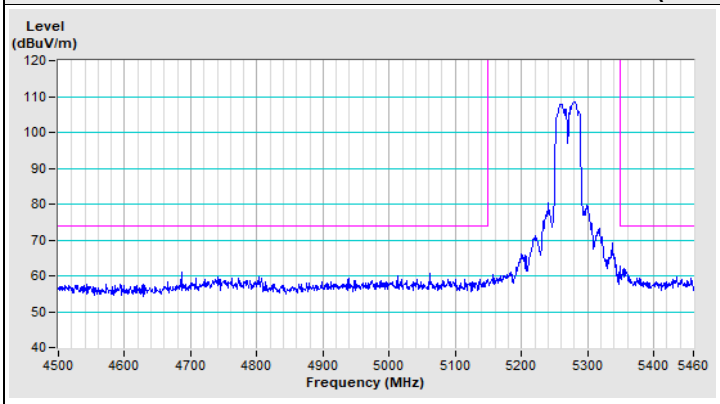
Vertical (Peak)



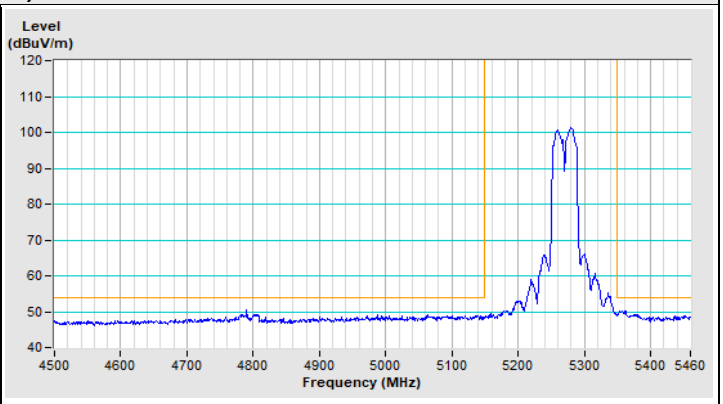
Vertical (Average)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

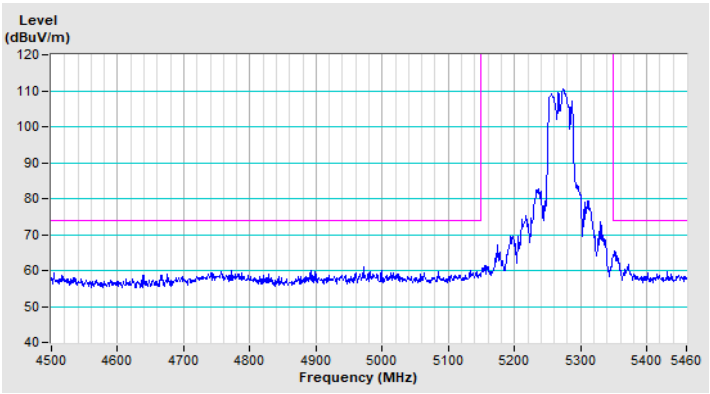
802.11ac (VHT40) Channel 54



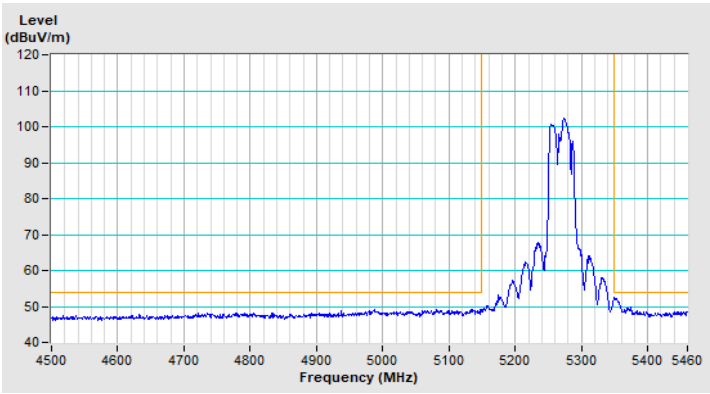
Horizontal (Peak)



Horizontal (Average)

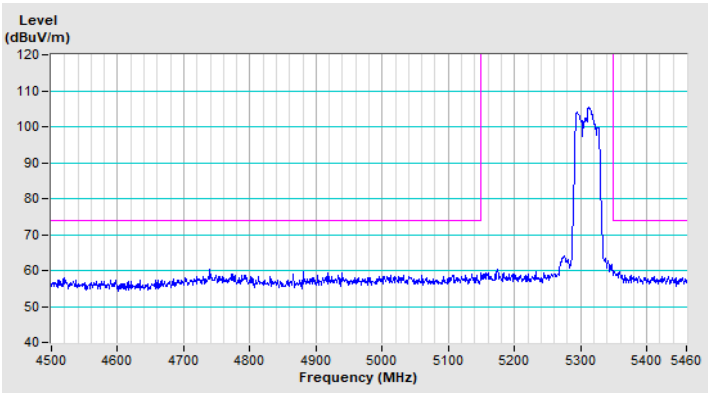


Vertical (Peak)

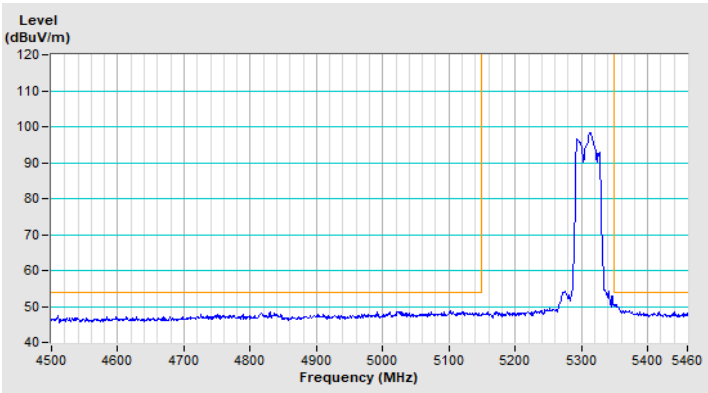


Vertical (Average)

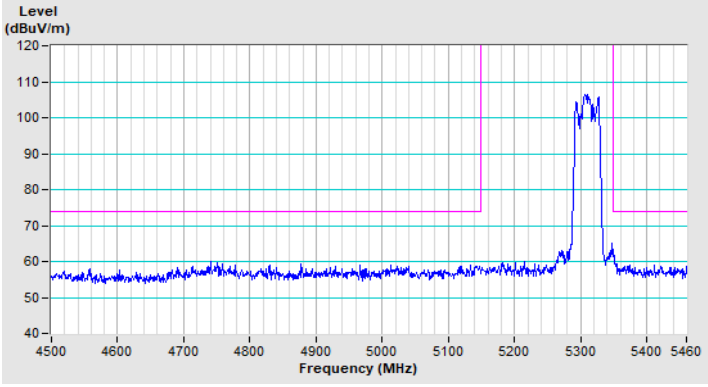
802.11ac (VHT40) Channel 62



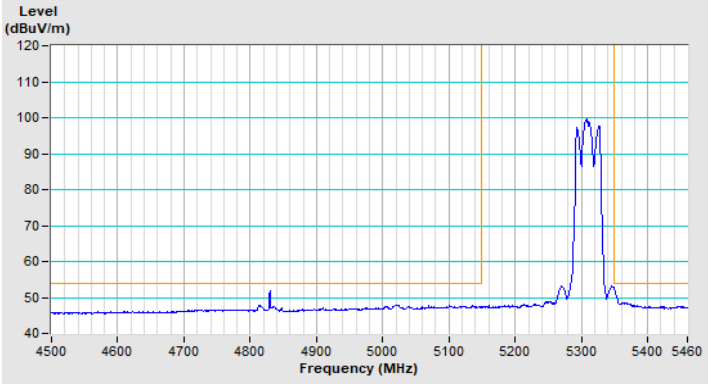
Horizontal (Peak)



Horizontal (Average)



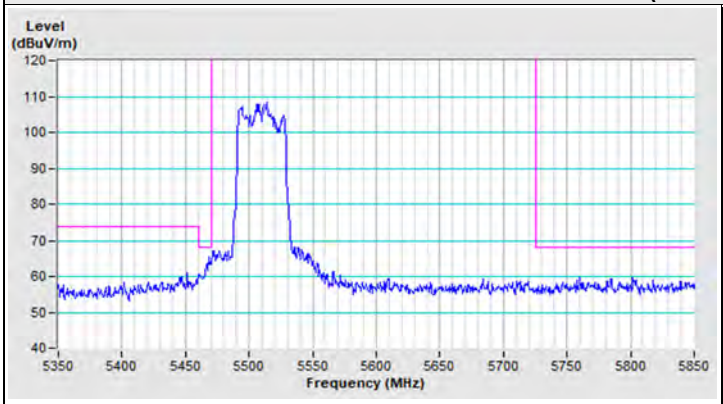
Vertical (Peak)



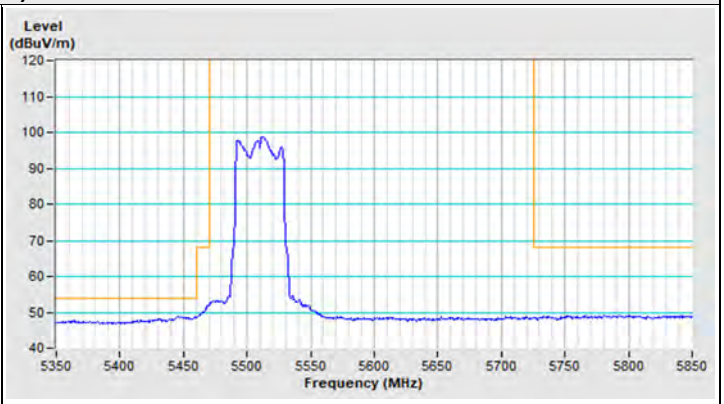
Vertical (Average)

Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

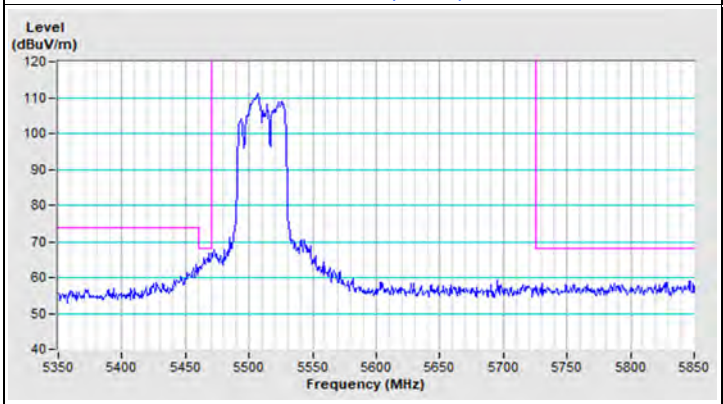
802.11ac (VHT40) Channel 102



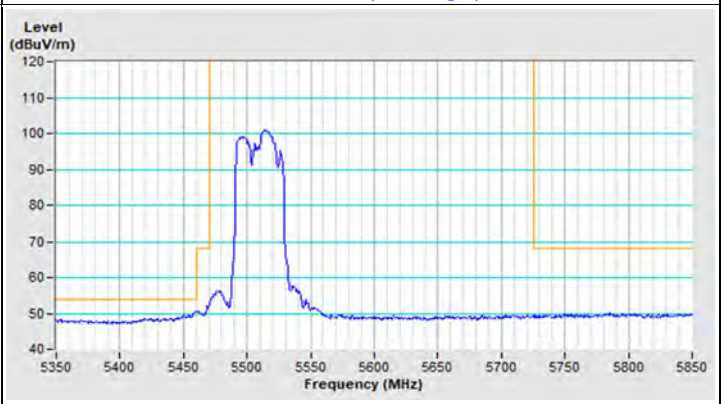
Horizontal (Peak)



Horizontal (Average)

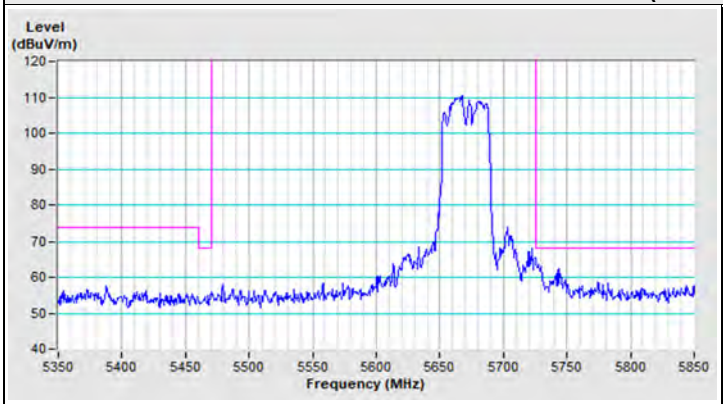


Vertical (Peak)

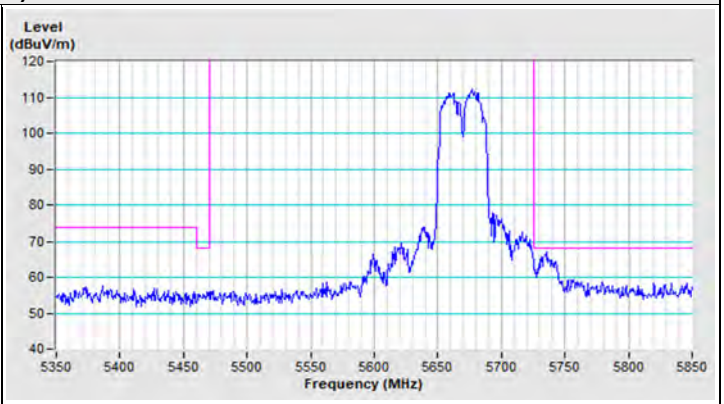


Vertical (Average)

802.11ac (VHT40) Channel 134



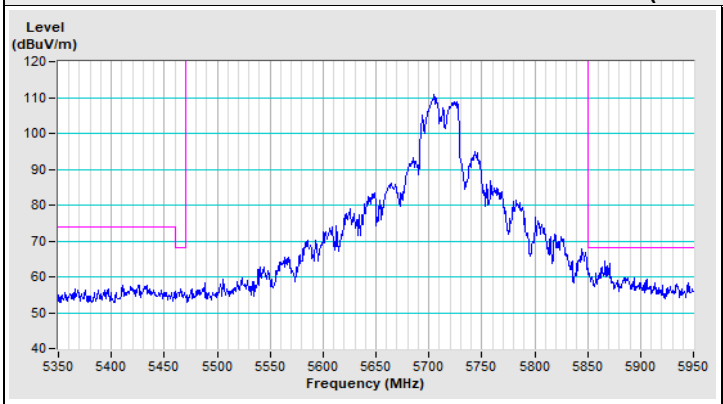
Horizontal (Peak)



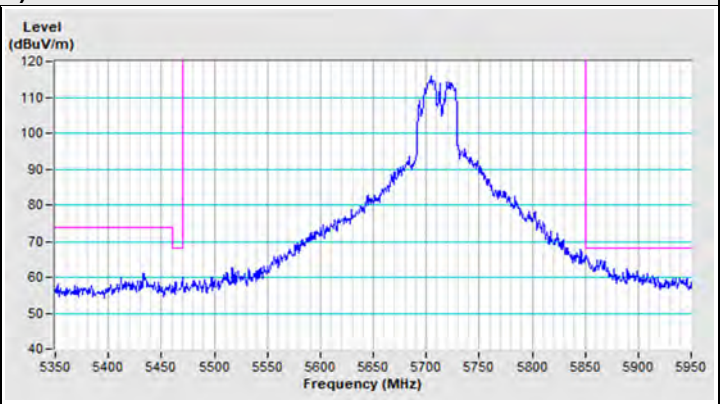
Vertical (Peak)

Frequency Range	5.35 GHz ~ 5.95 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT40) Channel 142



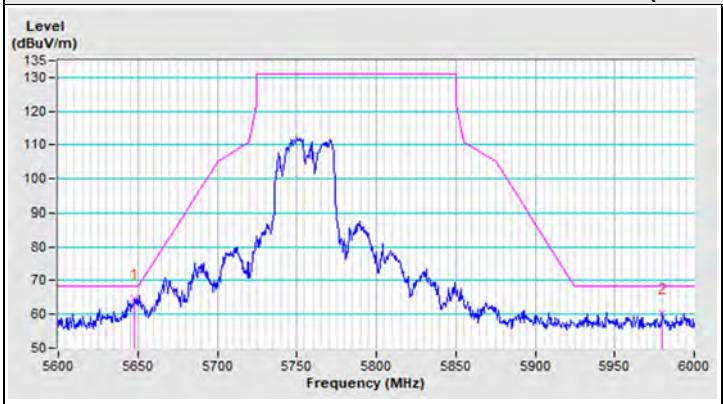
Horizontal (Peak)



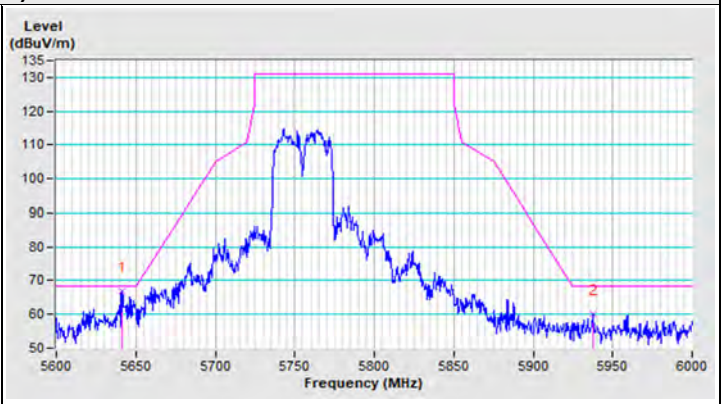
Vertical (Peak)

Frequency Range	5.6 GHz ~ 6 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT40) Channel 151

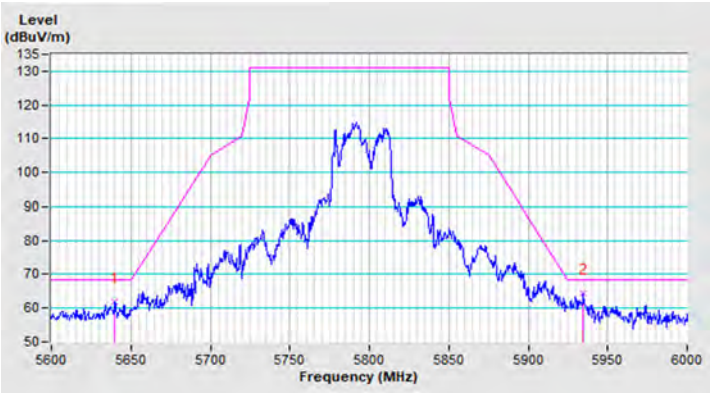


Horizontal (Peak)

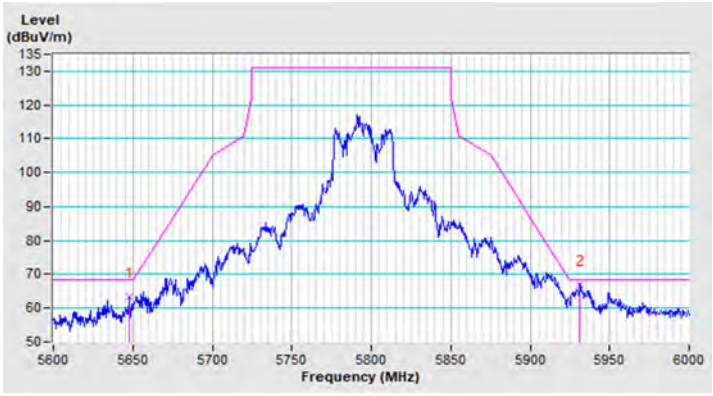


Vertical (Peak)

802.11ac (VHT40) Channel 159



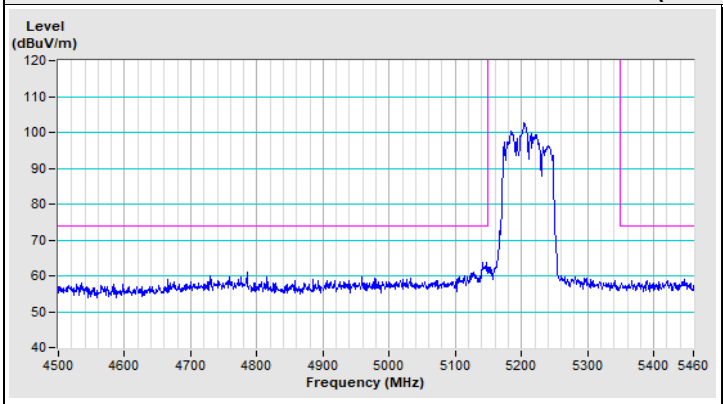
Horizontal (Peak)



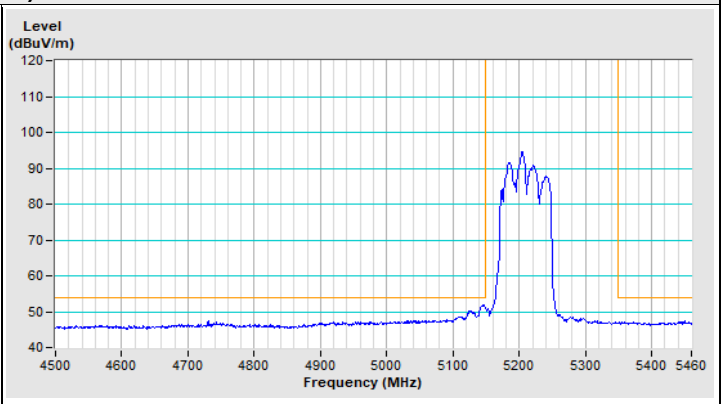
Vertical (Peak)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

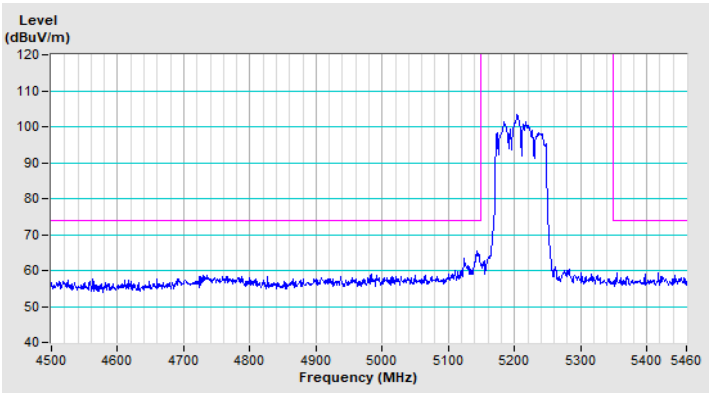
802.11ac (VHT80) Channel 42



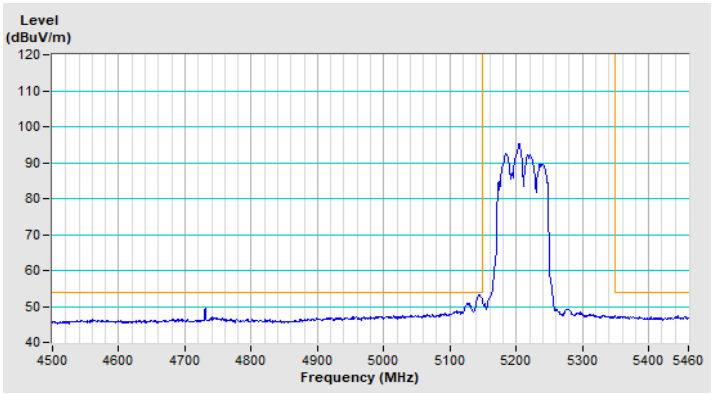
Horizontal (Peak)



Horizontal (Average)



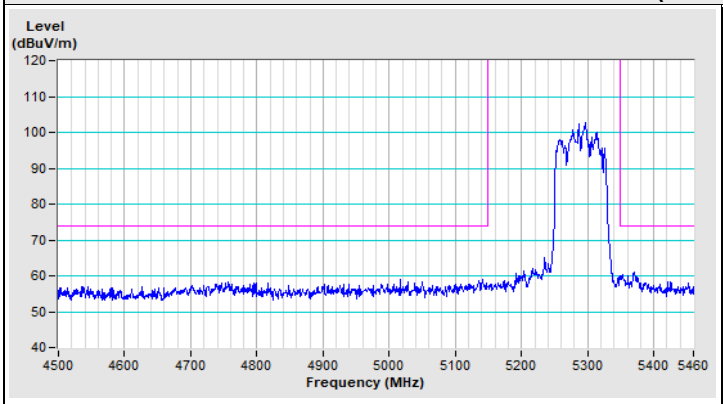
Vertical (Peak)



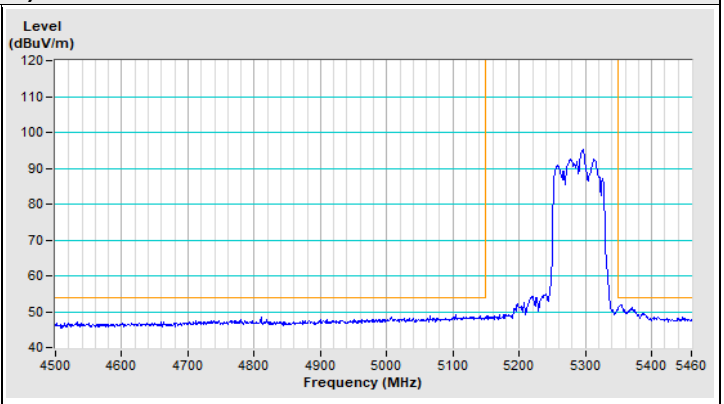
Vertical (Average)

Frequency Range	4.5 GHz ~ 5.46 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

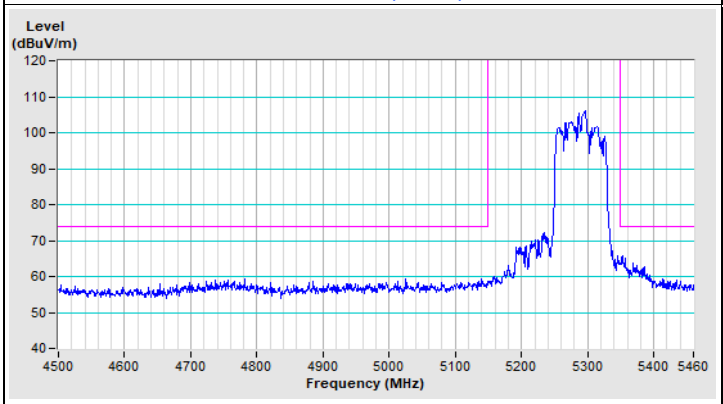
802.11ac (VHT80) Channel 58



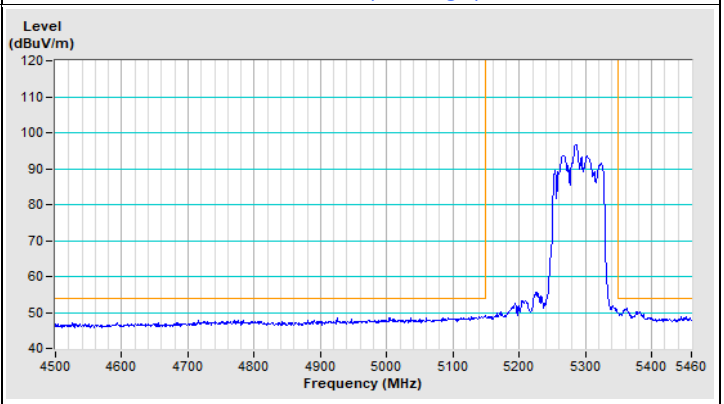
Horizontal (Peak)



Horizontal (Average)



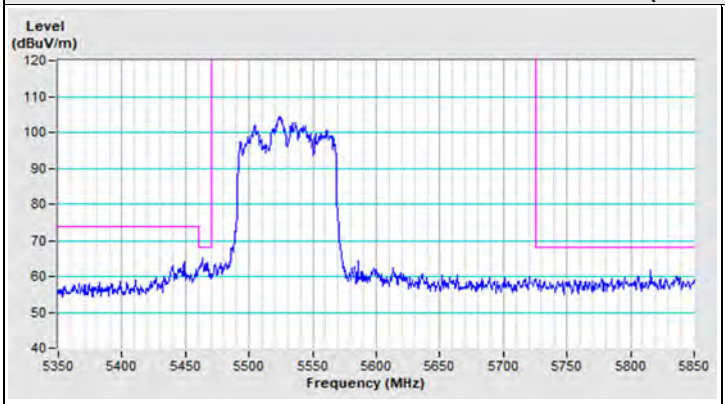
Vertical (Peak)



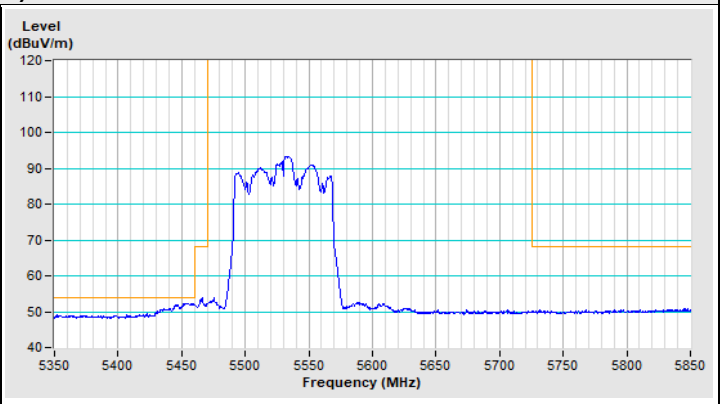
Vertical (Average)

Frequency Range	5.35 GHz ~ 5.85 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak

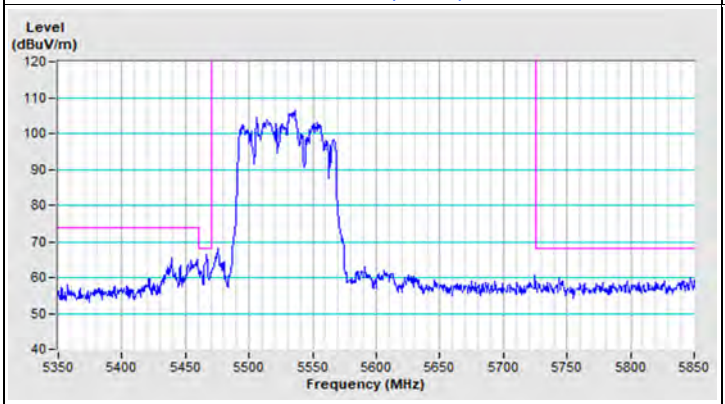
802.11ac (VHT80) Channel 106



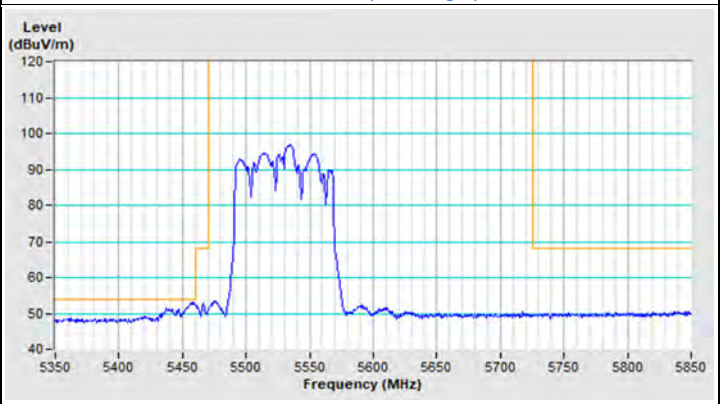
Horizontal (Peak)



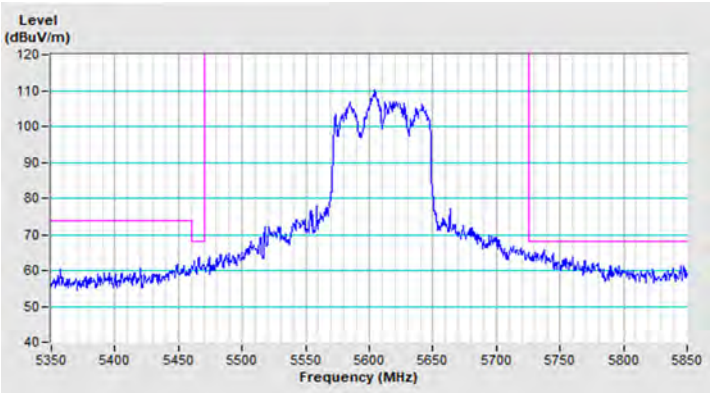
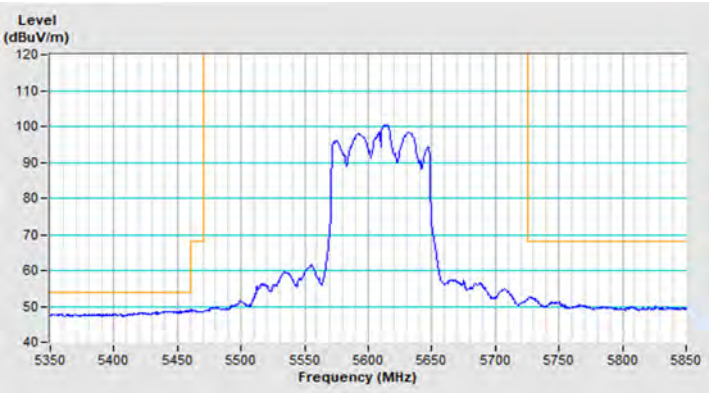
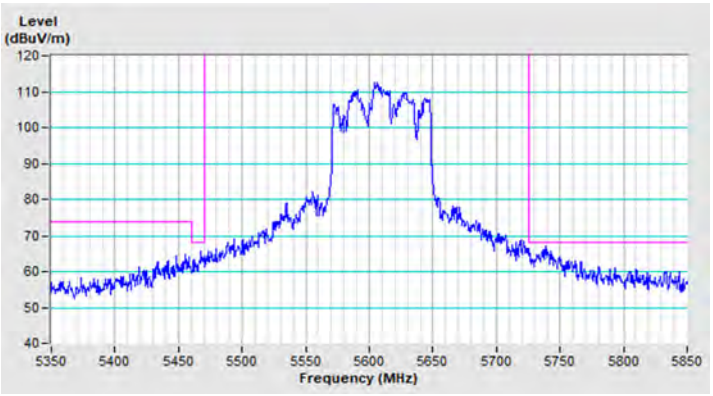
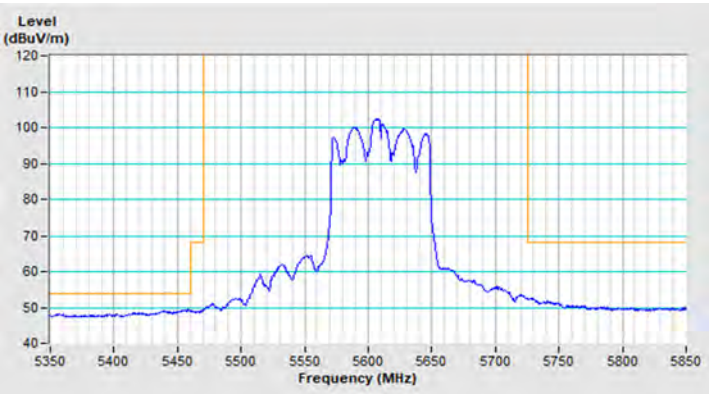
Horizontal (Average)



Vertical (Peak)

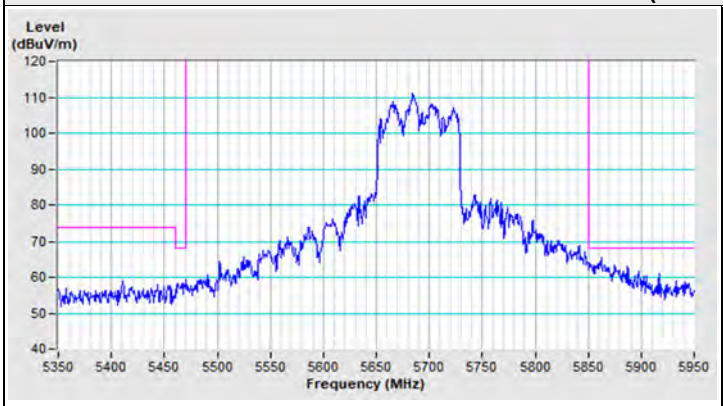


Vertical (Average)

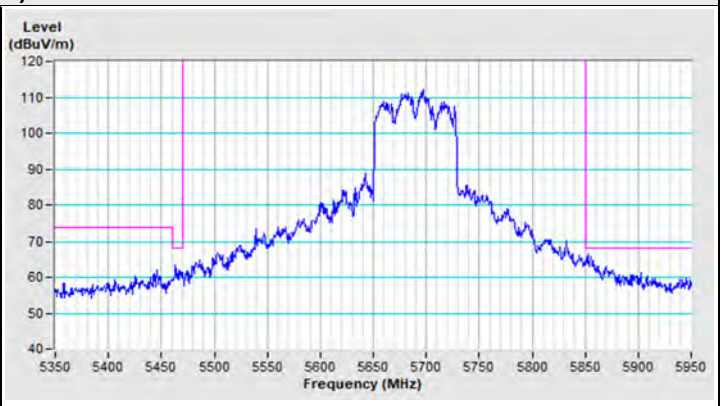
802.11ac (VHT80) Channel 122	
	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)

Frequency Range	5.35 GHz ~ 5.95 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT80) Channel 138



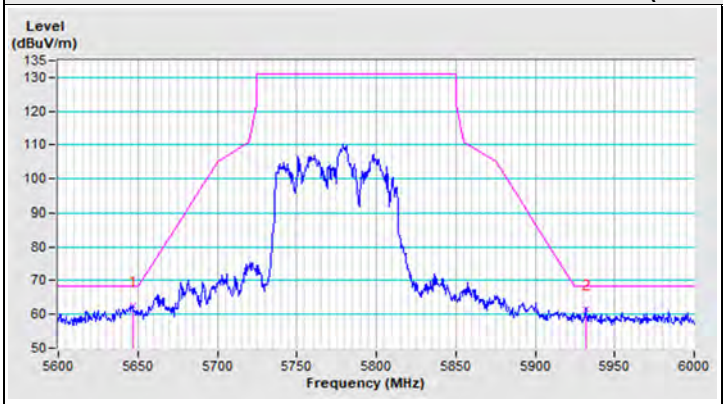
Horizontal (Peak)



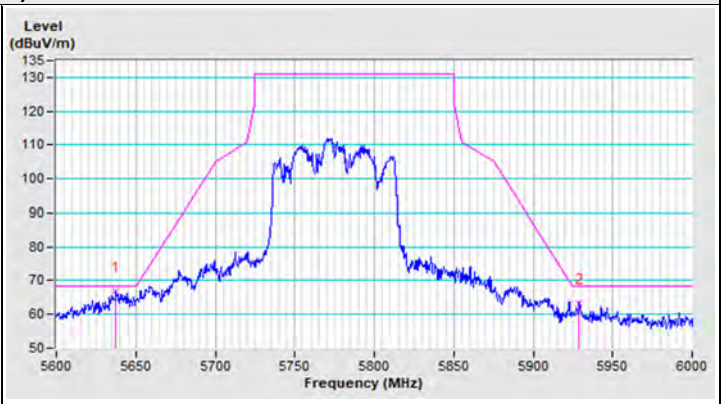
Vertical (Peak)

Frequency Range	5.6 GHz ~ 6 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak

802.11ac (VHT80) Channel 155



Horizontal (Peak)



Vertical (Peak)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Email: service.adt@bureauveritas.com
Web Site: http://ee.bureauveritas.com.tw

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

10 Appendix

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