

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBCKS-WTW-P23010439-1

FCC ID: 2AAAS-CP07

Product: Vivint Smart Hub Pro

Brand: Vivint

Model No.: CP07

Received Date: 2023/1/29

Test Date: 2023/1/31 ~ 2023/3/1

Issued Date: 2023/3/31

Applicant: Vivint, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____, **Date:** 2023/3/31
May Chen / Manager

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Prepared by : Vivian Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCKS-WTW-P23010439-1	Original release.	2023/3/31

1 Certificate

Product: Vivint Smart Hub Pro
Brand: Vivint
Test Model: CP07
Sample Status: Engineering sample
Applicant: Vivint, Inc.
Test Date: 2023/1/31 ~ 2023/3/1
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(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -10.62 dB at 0.43127 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.1 dB at 63.27 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, 5350.00, 5725.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.5 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 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	Vivint Smart Hub Pro
Brand	Vivint
Test Model	CP07
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from power adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode
Modulation Technology	OFDM
Transfer Rate	802.11a: up to 54 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 5.5 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 : 236.115 mW (23.73 dBm) 5.26 GHz ~ 5.32 GHz : 241.248 mW (23.82 dBm) 5.5 GHz ~ 5.72 GHz : 244.661 mW (23.89 dBm) 5.745 GHz ~ 5.825 GHz : 749.364 mW (28.75 dBm)
EUT Category	Client device

Note:

1. The EUT uses following accessories.

Battery 1		
Brand	Model	Specification
EVE	HB1021	Power Rating : 3.6V
AC Adapter 1		
Brand	Model	Specification
ZB-Power	ZB-H120020A-88	AC Input : 100-240V, 50/60Hz, 0.6A DC Output : 12V, 2.0A DC Output Cable : 1.51m Plug : US
AC Adapter 2		
Brand	Model	Specification
Honor	ADS-24FUD-12 12024EPCU	AC Input : 100-240V, 50/60Hz, 0.6A DC Output : 12V, 2.0A DC Output Cable : 1.51m Plug : US
SIM Card		
Brand		
VZW		
SIM Card		
Brand		
AT&T		

2. There are Bluetooth, WLAN (2.4 GHz & 5 GHz), WWAN(LTE), Z-wave and DECT technology used for the EUT.

3. Simultaneously transmission condition.

Condition	Technology			
1	Bluetooth	WWAN	Z-wave	DECT
2	WLAN (2.4 GHz)	Bluetooth	Z-wave	DECT
3	WLAN (5 GHz)	Bluetooth	Z-wave	DECT

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

4. The EUT contains certified WWAN module which FCC ID: XMR201909EG91NAX (Brand: QUECTEL; Model: EG91-NAX).

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type
WLAN (chain 0)	WNC	95XKAB15.GA4	2.76	2.4~2.4835GHz	Dipole	ipex(MHF)
			2.65	5.15~5.85GHz		
WLAN (chain 1)	WNC	95XKAB15.GA5	2.90	2.4~2.4835GHz	Dipole	ipex(MHF)
			2.06	5.15~5.85GHz		
BT 2.4G	WNC	On board	0.15	2.4~2.4835GHz	PIFA	none
Z-Wave	WNC	48XKAB2C.0GAFHYE	0.77	908-916MHz	PIFA	none
345MHz (Rx Only)	WNC	3S.004KJ.111	1.02	345 MHz	Dipole	none
LTE Main	WNC	48XKAB20.0GAFHYE	1.23	1850 -1910MHz	PIFA	none
			0.21	1710-1755MHz		
			0.41	824-849 MHz		
			0.00	698-716MHz		
			0.22	777-787MHz		
LTE AUX	WNC	95XKAB15.GA3	1.12	1850 -1910MHz	PIFA	ipex(MHF)
			0.80	1710-1755MHz		
			-1.14	824-849 MHz		
			-3.42	698-716MHz		
			-2.04	777-787MHz		
DECT (ANT0)	WNC	95XKAB15.0GA	3.40	1920MHz-1930MHz	Dipole	none
DECT (ANT1)	WNC	95XKAB15.0GA	3.60	1920MHz-1930MHz	Dipole	none

* 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) and 802.11ac mode for 20 MHz (40 MHz), therefore the manufacturer will control the power for 802.11n mode is the same as the 802.11ac or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

FOR 5180 ~ 5320 MHz

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

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:	1. The Power Supply has the following models: Adapter (ZB-Power) / Adapter (Honor). Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. 3. 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:	1. AC Adapter Worst Condition: Adapter (Honor) 2. X-axis/ Y-axis/ Z-axis Worst Condition: X-axis

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

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

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
Note: Battery (EVE) only can use in 5min, so evaluation with adapter mode.				

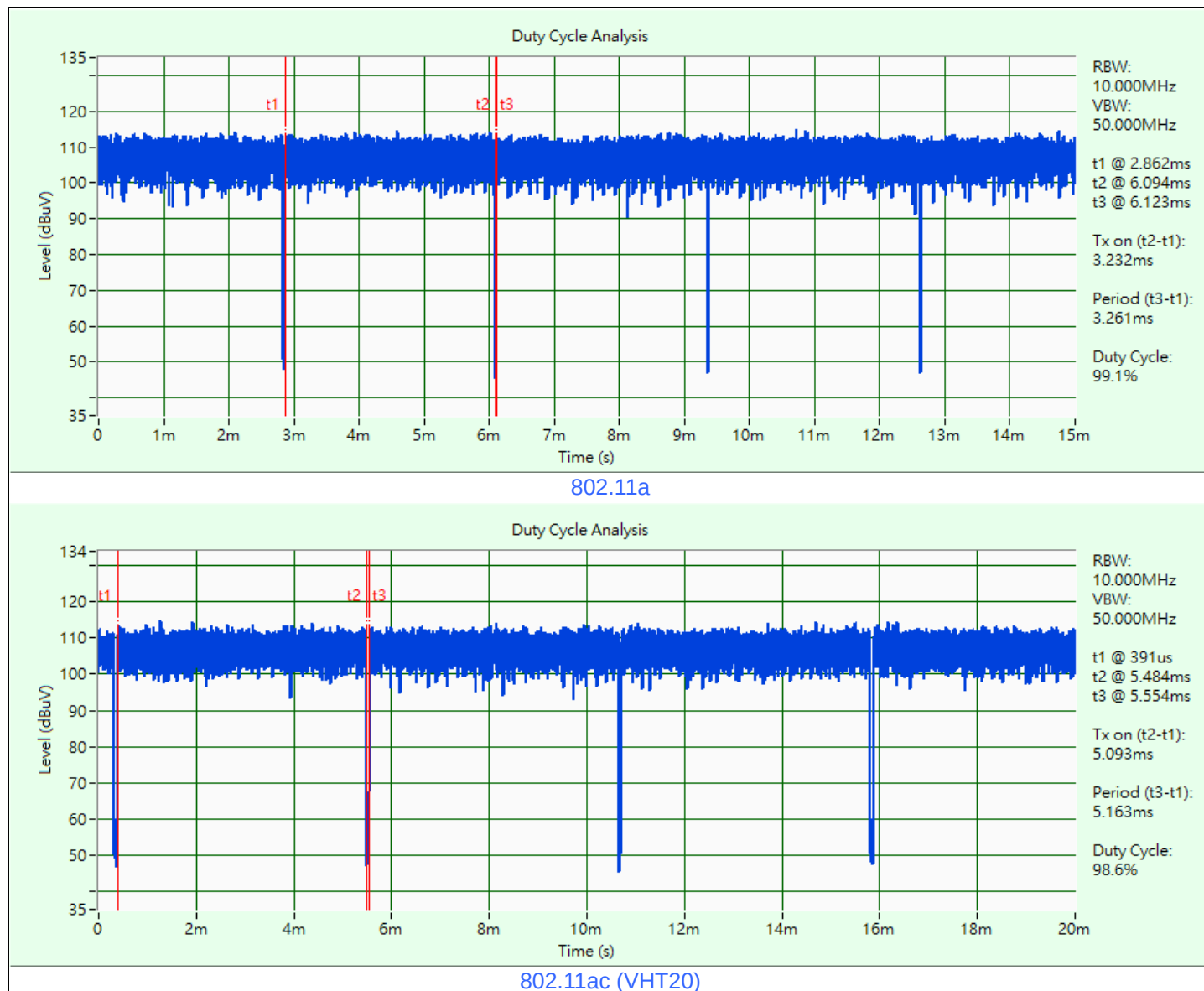
3.5 Duty Cycle of Test Signal

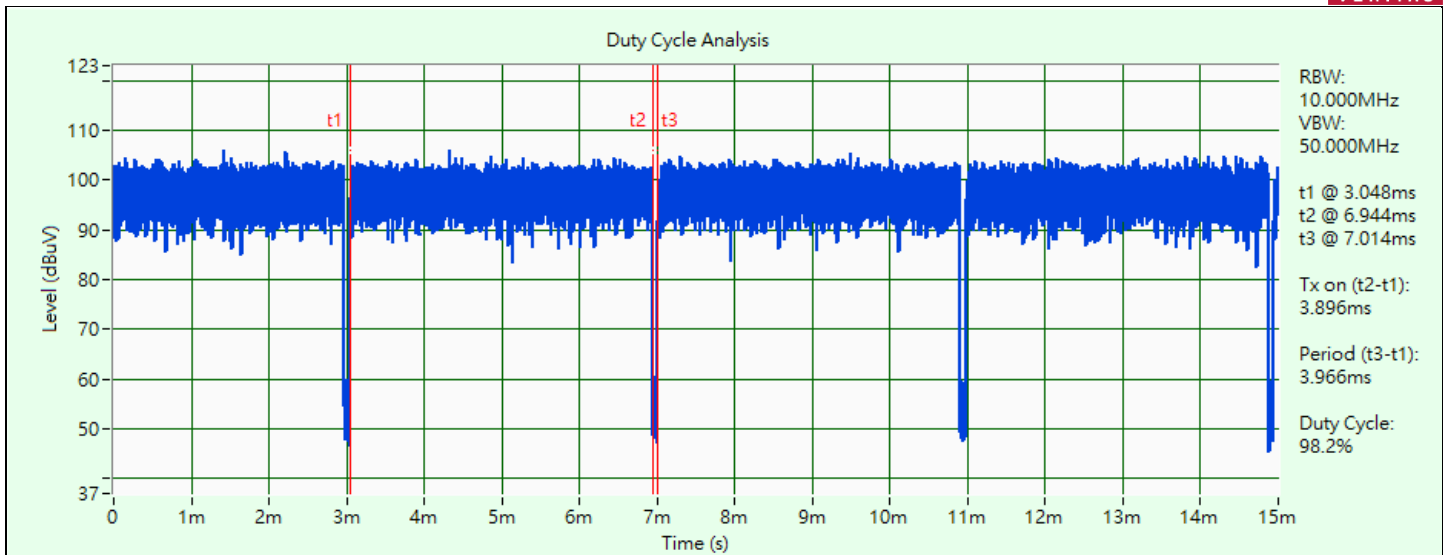
802.11a: Duty cycle = 3.232 ms / 3.261 ms x 100% = 99.1%

802.11ac (VHT20): Duty cycle = 5.093 ms / 5.163 ms x 100% = 98.6%

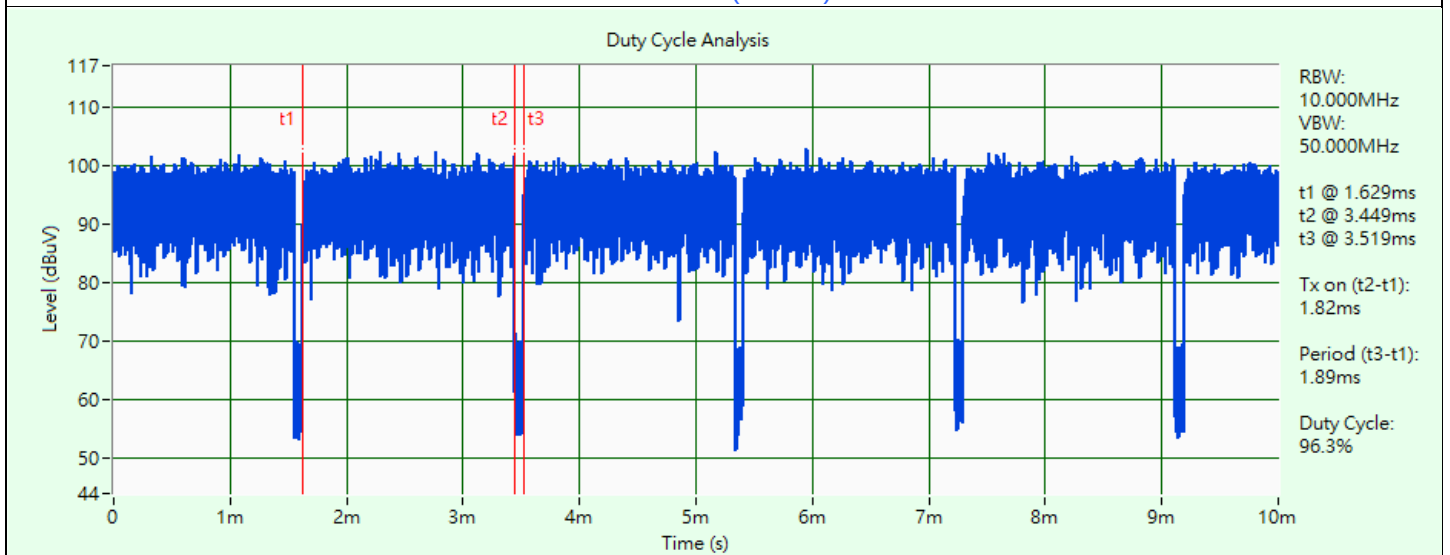
802.11ac (VHT40): Duty cycle = 3.896 ms / 3.966 ms x 100% = 98.2%

802.11ac (VHT80): Duty cycle = 1.82 ms / 1.89 ms x 100% = 96.3%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.16 \text{ dB}$





802.11ac (VHT40)

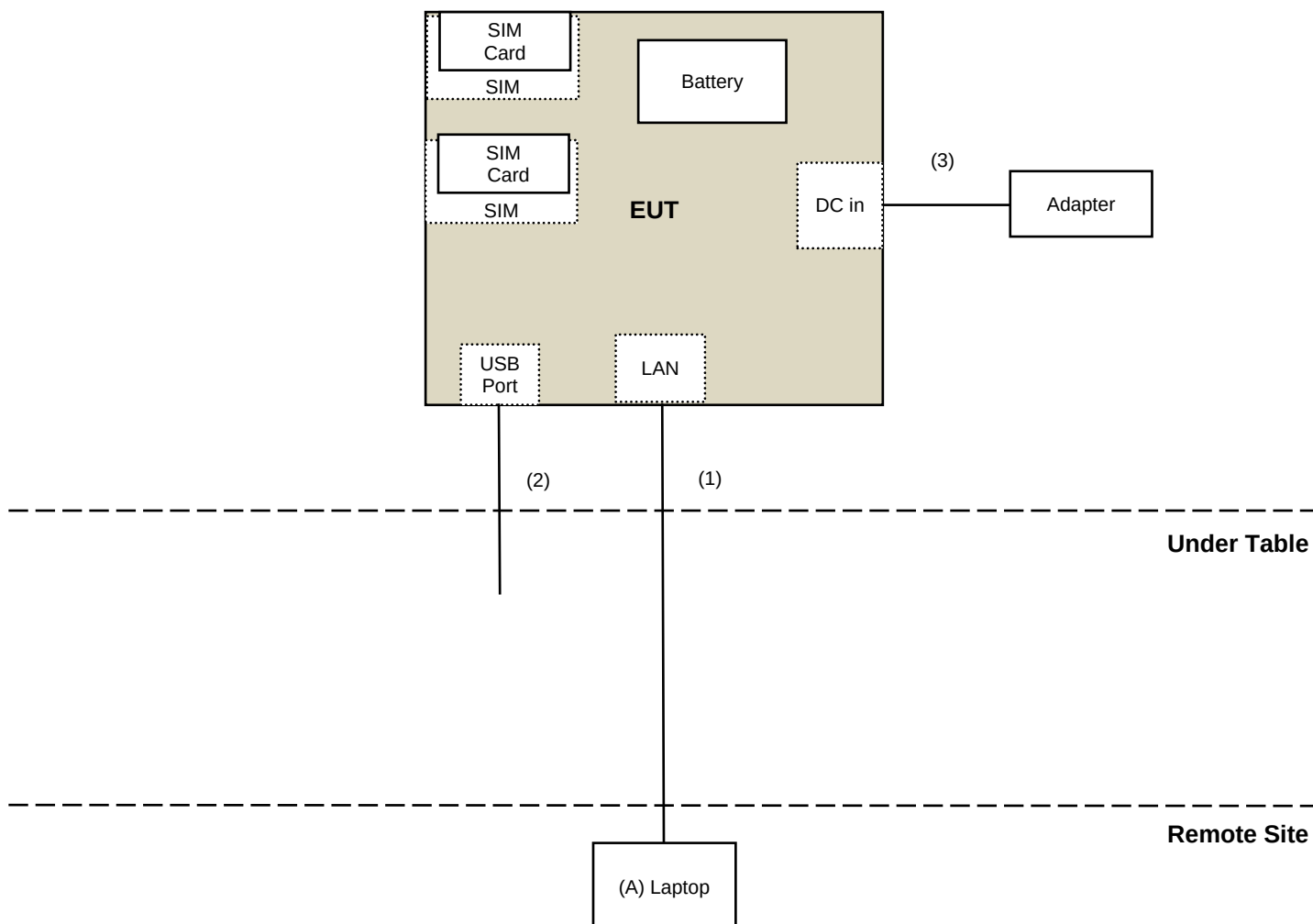


802.11ac (VHT80)

3.6 Test Program Used and Operation Descriptions

Controlling software (MT7663 QA 0.0.2.8) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ 45	1	10	No	0	Provided by Lab
2	Micro USB Cable	1	1	No	0	Provided by Lab
3	DC Cable	1	1.51	No	0	Supplied by applicant

4 Test Instruments

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

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2022/3/11	2023/3/10

Notes:

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

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2022/3/11	2023/3/10

Notes:

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

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source GOOD WILL	6905S	1991551	N/A	N/A
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2022/3/11	2023/3/10
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/12/26	2023/12/25
True RMS Clamp Meter Fluke	325	31130711WS	2022/6/9	2023/6/8

Notes:

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

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance	N/A	EMC-01	2022/9/27	2023/9/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2022/10/18	2023/10/17
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A
TEST RECEIVER R&S	ESCS 30	847124/029	2022/10/14	2023/10/13

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2023/2/24

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2022/12/28	2023/12/27
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
Pre_Amplifier Agilent	8447D	2944A10636	2022/3/19	2023/3/18
Pre_Amplifier EMCI	EMC330N	980701	2022/3/8	2023/3/7
RF Coaxial Cable COMMATE/PEWC	8D	966-4-1	2022/3/8	2023/3/7
		966-4-2	2022/3/8	2023/3/7
		966-4-3	2022/3/8	2023/3/7
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/12/19	2023/12/18
		LOOPCAB-002	2022/12/19	2023/12/18
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-406	2022/10/21	2023/10/20

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2023/2/8

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2022/11/13	2023/11/12
	BBHA 9170	9170-739	2022/11/13	2023/11/12
Pre_Amplifier EMCI	EMC12630SE	980688	2022/10/4	2023/10/3
	EMC184045SE	980387	2022/12/28	2023/12/27
RF Cable-Frequency Range : 1- 26.5GHz EMCI	EMC104-SM-SM-1200	160922	2022/12/15	2023/12/14
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/12/28	2023/12/27
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8 2023/2/20	2023/3/7 2024/2/19
	EMC104-SM-SM-2000	180502	2022/4/25	2023/4/24
	EMC104-SM-SM-6000	210704	2022/11/4	2023/11/3
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2023/1/31 ~ 2023/2/23

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

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

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

*B is the 26 dB emission bandwidth in megahertz

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

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

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

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

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

5.3 Power Spectral Density

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

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

5.4 6 dB Bandwidth

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

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

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

5.7 AC Power Conducted Emissions

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

Notes:

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

5.8 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.9 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

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

For transmitters operating in the 5.15-5.25 GHz band:

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

For transmitters operating in the 5.25-5.35 GHz band:

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

For transmitters operating in the 5.47-5.725 GHz band:

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

For transmitters operating in the 5.725-5.850 GHz band:

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

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

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

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

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

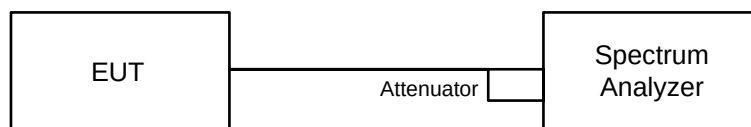
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

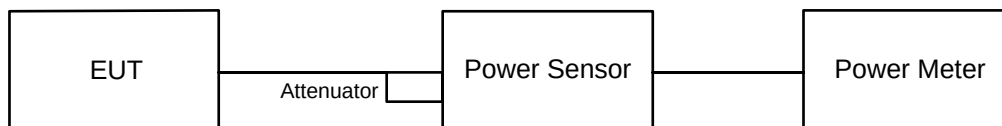


6.1.2 Test Procedure

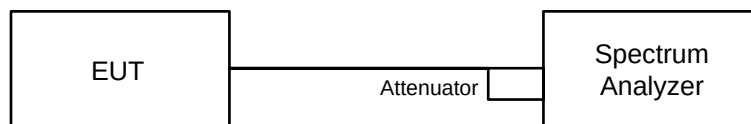
- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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

For channel straddling:

Method SA-1

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

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

For channel straddling:

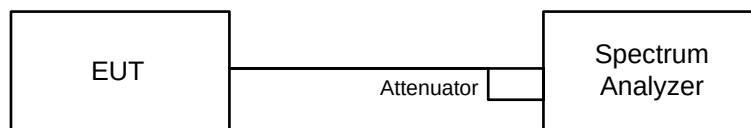
Method SA-2

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

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

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

For specified measurement bandwidth 1 MHz:

Method SA-2

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

For specified measurement bandwidth 500 kHz:

Method SA-1

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

For specified measurement bandwidth 500 kHz:

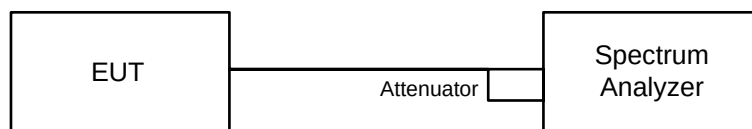
Method SA-2

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

- 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 $10 \log (1/\text{duty cycle})$.

6.4 6 dB Bandwidth

6.4.1 Test Setup

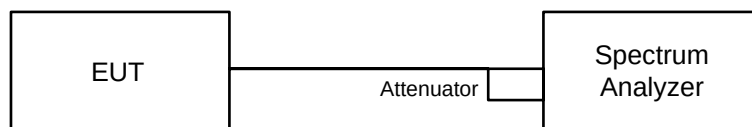


6.4.2 Test Procedure

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

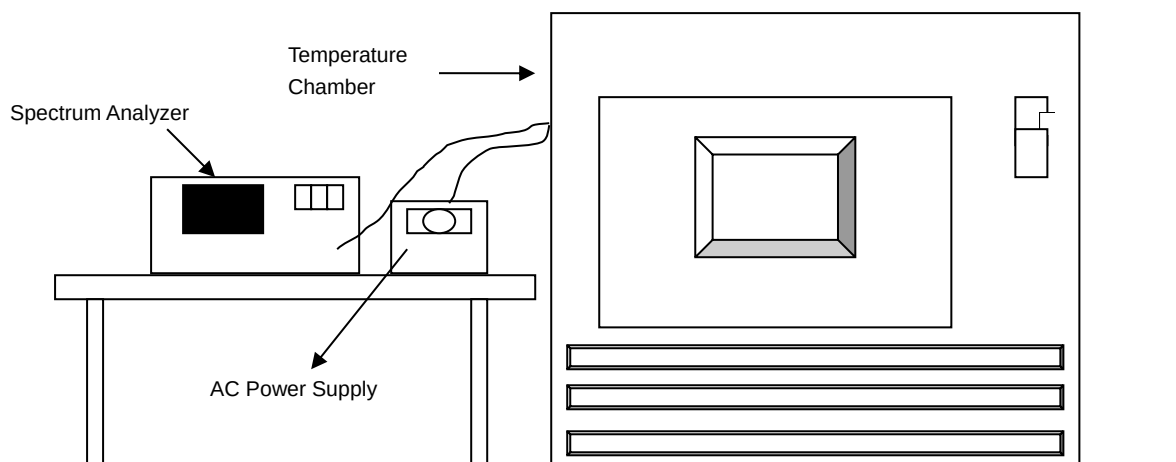


6.5.2 Test Procedure

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 Frequency Stability

6.6.1 Test Setup

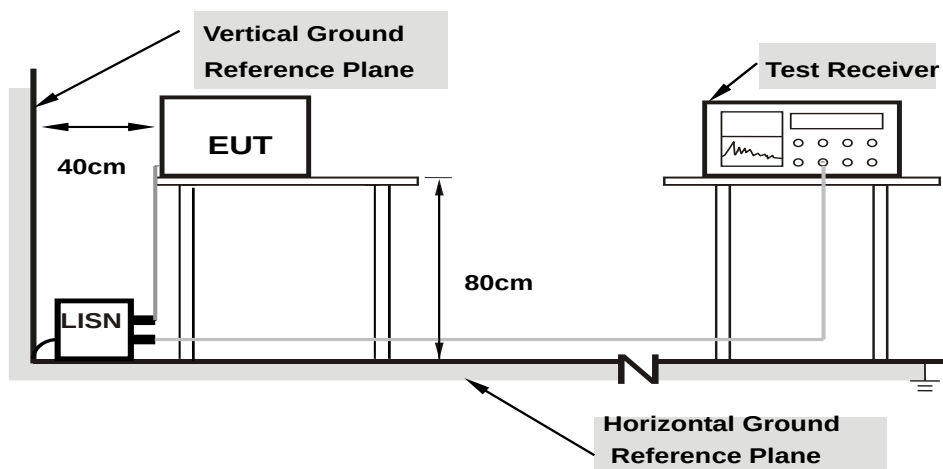


6.6.2 Test Procedure

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

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



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

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

6.7.2 Test Procedure

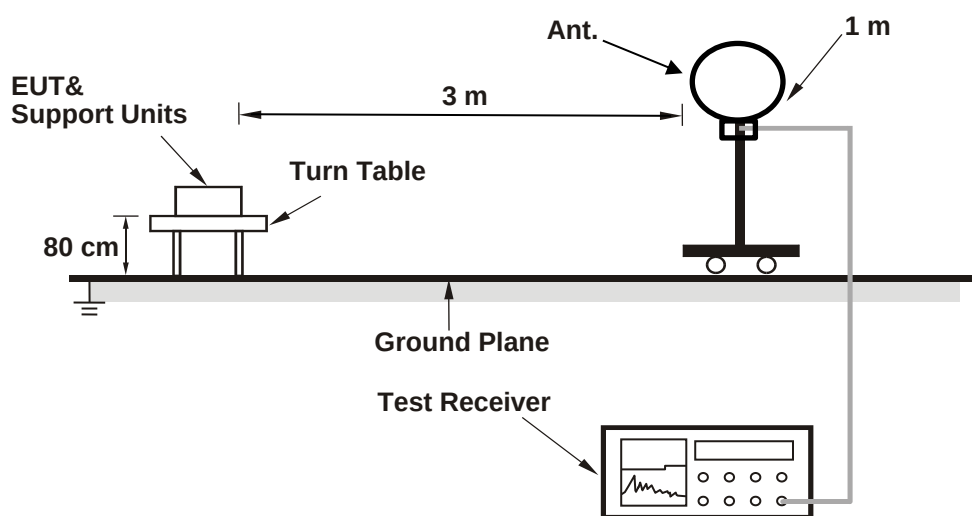
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

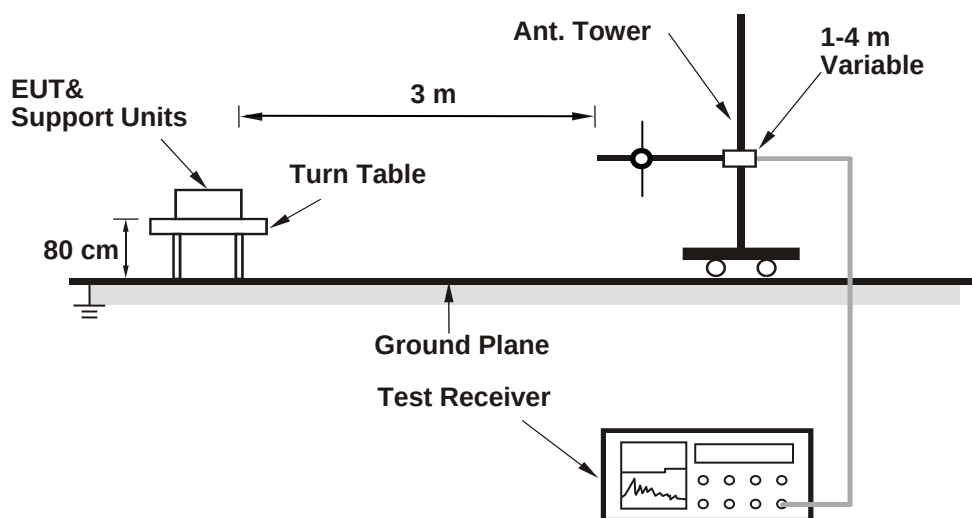
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.8.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

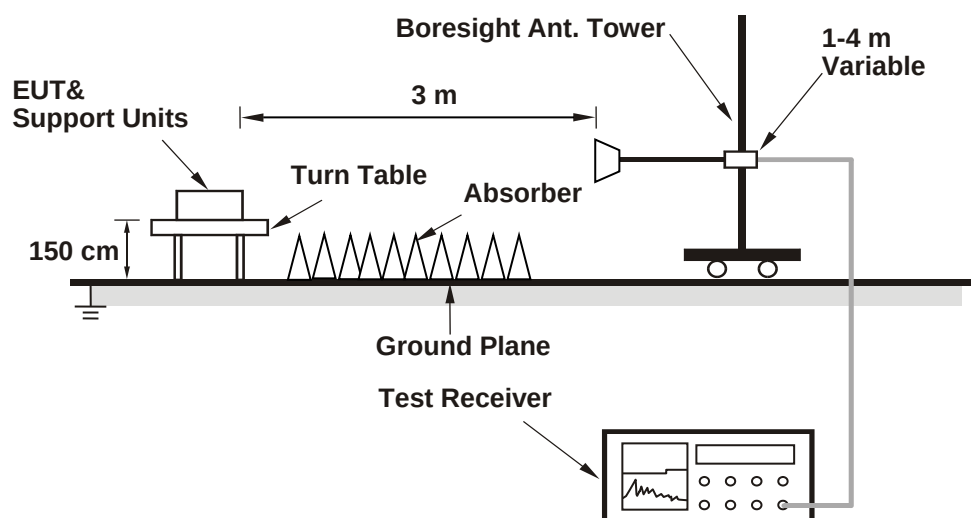
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup



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

6.9.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 26 dB Bandwidth

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

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.06	19.94
60	5300	20.00	19.83
64	5320	20.04	19.74
100	5500	20.19	19.81
116	5580	20.11	19.78
140	5700	19.98	19.79
144 (U-NII-2C)	5720	14.85	14.87
144 (U-NII-3)	5720	4.86	4.92

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	19.94	23.99 < 24
60	5300	19.83	23.97 < 24
64	5320	19.74	23.95 < 24
100	5500	19.81	23.96 < 24
116	5580	19.78	23.96 < 24
140	5700	19.79	23.96 < 24
144 (U-NII-2C)	5720	14.85	22.71 < 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	20.46	20.16
60	5300	20.42	20.11
64	5320	20.53	20.26
100	5500	20.56	20.12
116	5580	20.42	20.24
140	5700	20.48	20.24
144 (U-NII-2C)	5720	15.28	14.99
144 (U-NII-3)	5720	5.27	5.01

Determined Output Power Limit				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)	
52	5260	20.16	24.04	> 24
60	5300	20.11	24.03	> 24
64	5320	20.26	24.06	> 24
100	5500	20.12	24.03	> 24
116	5580	20.24	24.06	> 24
140	5700	20.24	24.06	> 24
144 (U-NII-2C)	5720	14.99	22.75	< 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	53.67	41.34
62	5310	41.29	41.28
102	5510	41.40	41.04
110	5550	44.37	41.52
134	5670	41.58	41.23
142 (U-NII-2C)	5710	35.69	35.73
142 (U-NII-3)	5710	5.38	5.26

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	41.34	27.16 > 24
62	5310	41.28	27.15 > 24
102	5510	41.04	27.13 > 24
110	5550	41.52	27.18 > 24
134	5670	41.23	27.15 > 24
142 (U-NII-2C)	5710	35.69	26.52 > 24

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

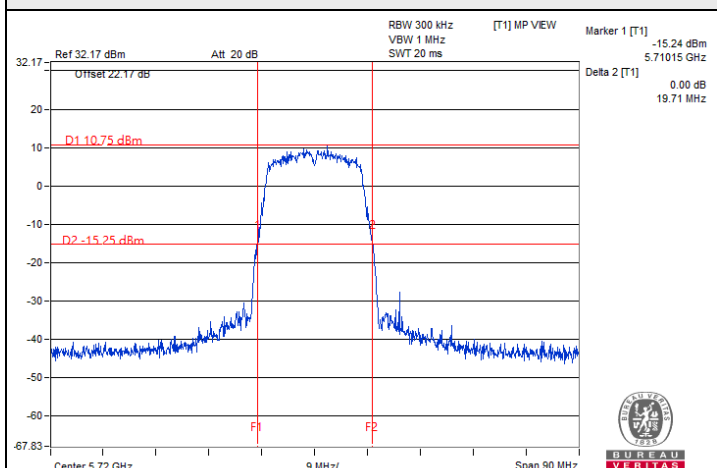
802.11ac (VHT80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.22	80.91
106	5530	81.22	80.83
122	5610	81.33	80.99
138 (U-NII-2C)	5690	75.66	75.23
138 (U-NII-3)	5690	5.71	5.14

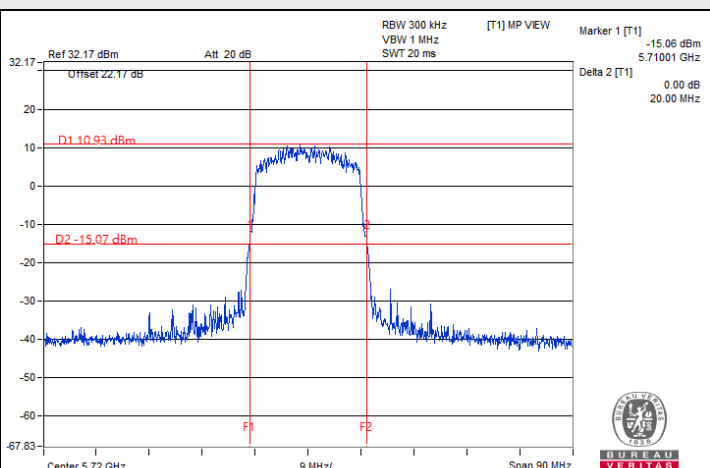
Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	80.91	30.08 > 24
106	5530	80.83	30.07 > 24
122	5610	80.99	30.08 > 24
138 (U-NII-2C)	5690	75.23	29.76 > 24

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

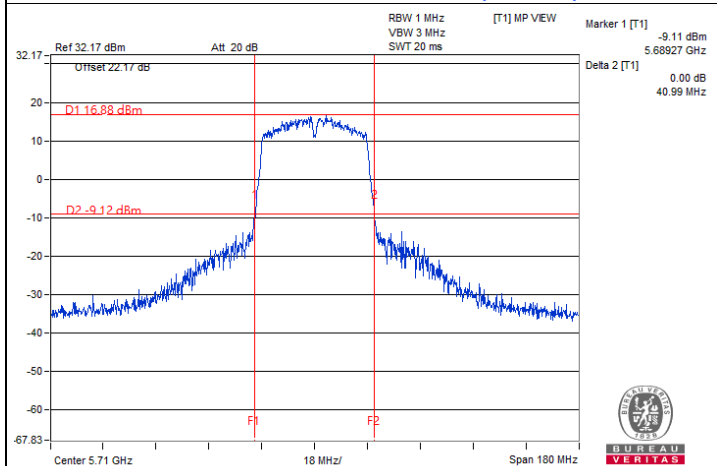
Spectrum Plot of Minimum Value



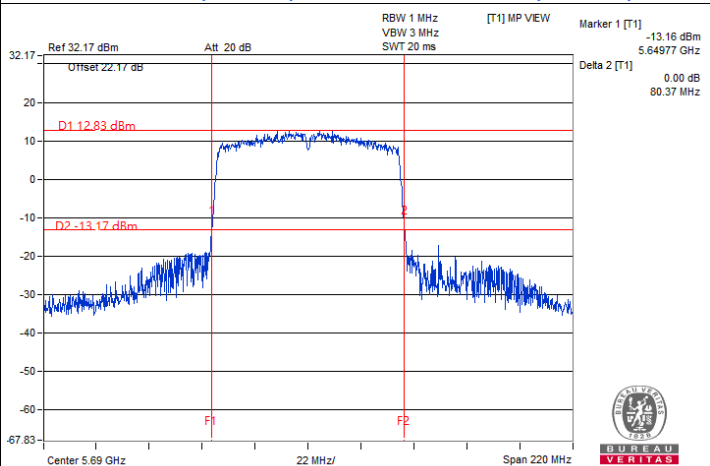
802.11a / Chain 0 : CH 144 (U-NII-3)



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



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



802.11ac (VHT80) / Chain 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:	John Peng
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802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	18.57	18.92	149.928	21.76	24	Pass
40	5200	18.72	19.11	155.944	21.93	24	Pass
48	5240	18.86	19.30	162.027	22.10	24	Pass
52	5260	18.52	18.21	137.343	21.38	23.99	Pass
60	5300	18.56	18.45	141.764	21.52	23.97	Pass
64	5320	18.34	18.02	131.621	21.19	23.95	Pass
100	5500	18.04	18.47	133.987	21.27	23.96	Pass
116	5580	18.33	18.52	139.198	21.44	23.96	Pass
140	5700	18.63	18.67	146.566	21.66	23.96	Pass
*144 (U-NII-2C)	5720	17.41	17.24	108.047	20.34	22.71	Pass
*144 (U-NII-3)	5720	9.93	9.60	18.96	12.78	30	Pass
149	5745	25.66	24.56	653.888	28.16	30	Pass
157	5785	25.50	25.72	728.064	28.62	30	Pass
165	5825	25.25	25.95	728.516	28.62	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.65 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	18.29	19.01	147.069	21.68	24	Pass
40	5200	18.56	19.03	151.763	21.81	24	Pass
48	5240	18.86	19.15	159.137	22.02	24	Pass
52	5260	18.29	18.35	135.844	21.33	24	Pass
60	5300	18.26	18.32	134.909	21.30	24	Pass
64	5320	18.44	18.29	137.276	21.38	24	Pass
100	5500	18.86	19.08	157.823	21.98	24	Pass
116	5580	18.94	18.75	153.332	21.86	24	Pass
140	5700	18.86	18.88	154.181	21.88	24	Pass
*144 (U-NII-2C)	5720	17.68	17.65	116.824	20.68	22.75	Pass
*144 (U-NII-3)	5720	10.58	10.61	22.937	13.61	30	Pass
149	5745	25.64	24.53	650.229	28.13	30	Pass
157	5785	25.57	25.76	737.282	28.68	30	Pass
165	5825	25.49	25.97	749.364	28.75	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.65 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	17.66	18.29	125.797	21.00	24	Pass
46	5230	20.63	20.81	236.115	23.73	24	Pass
54	5270	21.09	20.52	241.248	23.82	24	Pass
62	5310	16.89	16.98	98.754	19.95	24	Pass
102	5510	17.51	17.87	117.599	20.70	24	Pass
110	5550	20.93	20.82	244.661	23.89	24	Pass
134	5670	20.48	20.25	217.612	23.38	24	Pass
*142 (U-NII-2C)	5710	20.33	19.71	201.435	23.04	24	Pass
*142 (U-NII-3)	5710	8.01	6.89	11.211	10.50	30	Pass
151	5755	24.61	24.34	560.712	27.49	30	Pass
159	5795	24.67	25.06	613.716	27.88	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.

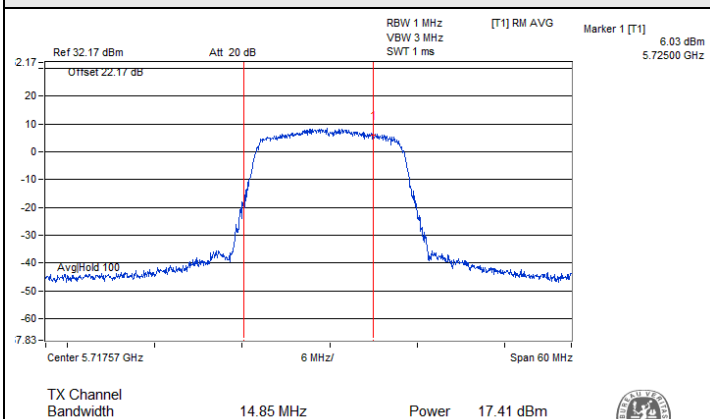
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	14.79	15.40	64.804	18.12	24	Pass
58	5290	14.53	14.11	54.142	17.34	24	Pass
106	5530	16.16	16.51	86.076	19.35	24	Pass
122	5610	20.70	20.73	235.794	23.73	24	Pass
*138 (U-NII-2C)	5690	19.42	19.99	194.471	22.89	24	Pass
*138 (U-NII-3)	5690	3.36	4.99	5.527	7.42	30	Pass
155	5775	22.74	23.17	395.423	25.97	30	Pass

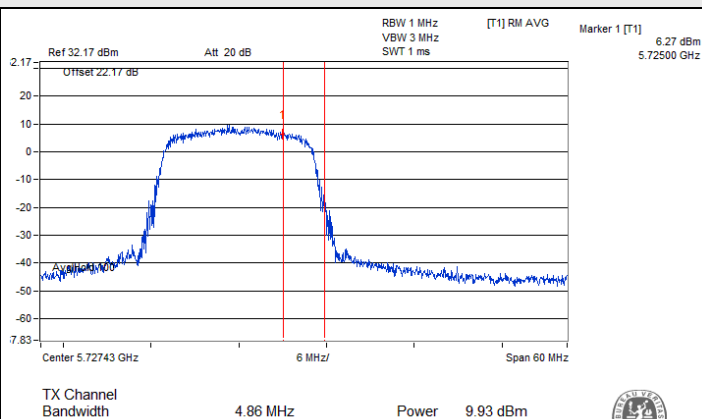
Notes:

- * : 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.
- Directional gain is the maximum gain of antennas.
- For U-NII-1, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2A, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.65 dBi < 6 dBi, so the output power limit shall not be reduced.

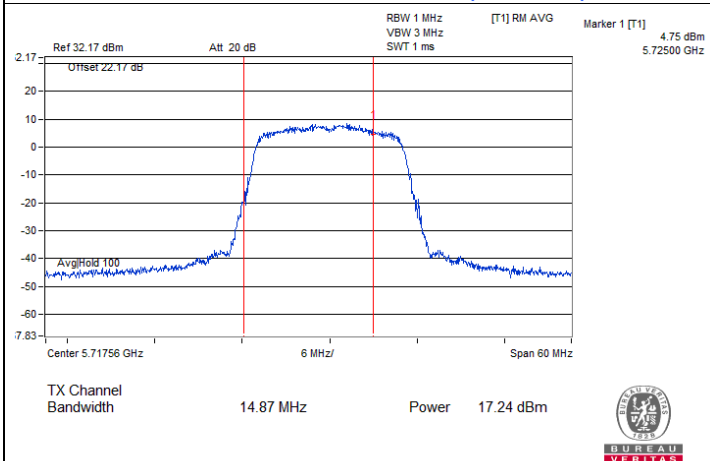
Spectrum Plot for channel straddling



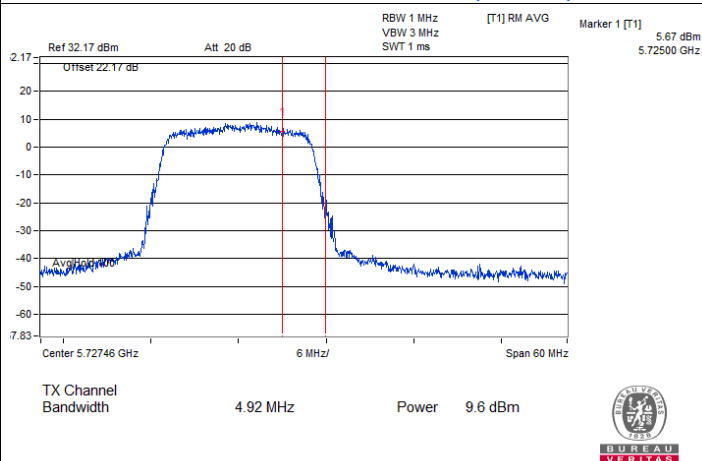
802.11a / Chain 0 : CH 144 (U-NII-2C)



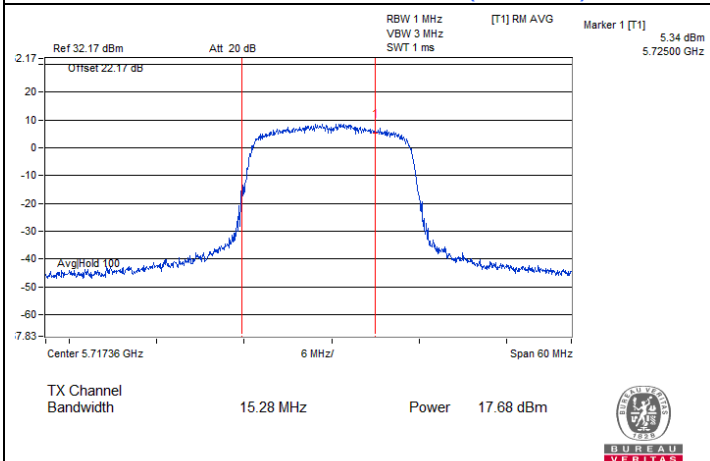
802.11a / Chain 0 : CH 144 (U-NII-3)



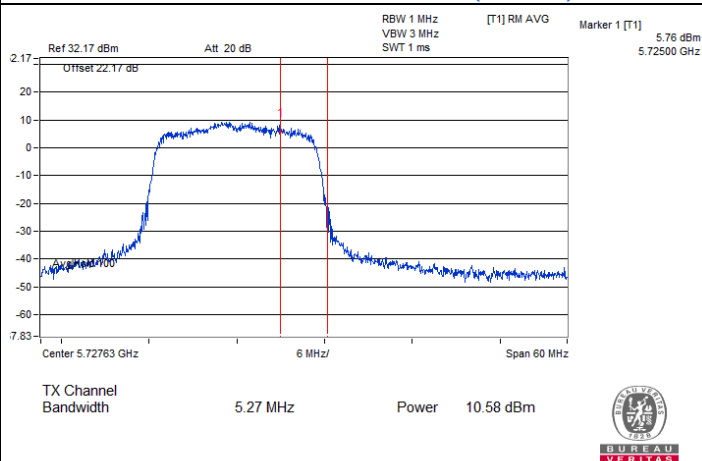
802.11a / Chain 1 : CH 144 (U-NII-2C)



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

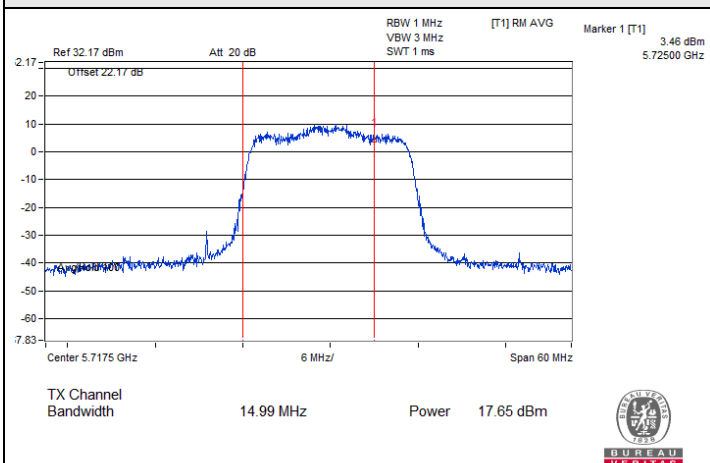


802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-2C)

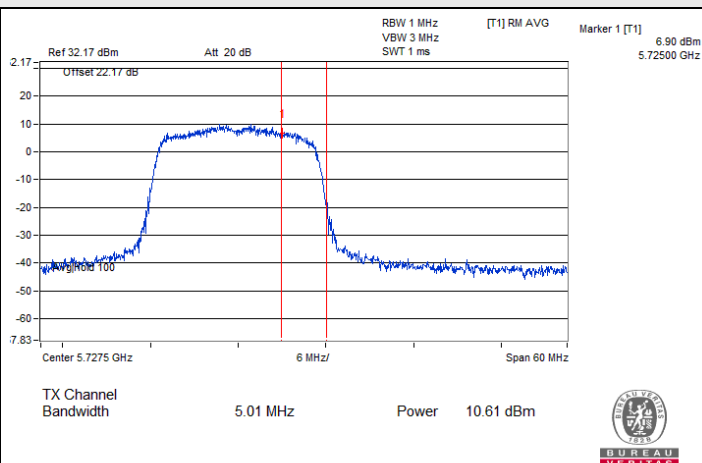


802.11ac (VHT20) / Chain 0 : CH 144 (U-NII-3)

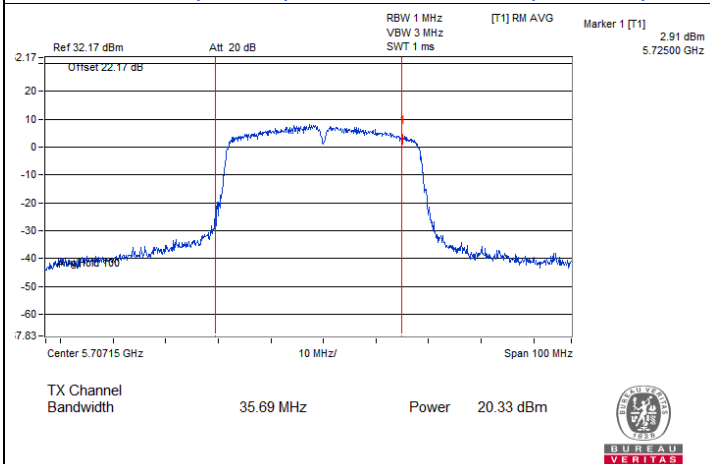
Spectrum Plot for channel straddling



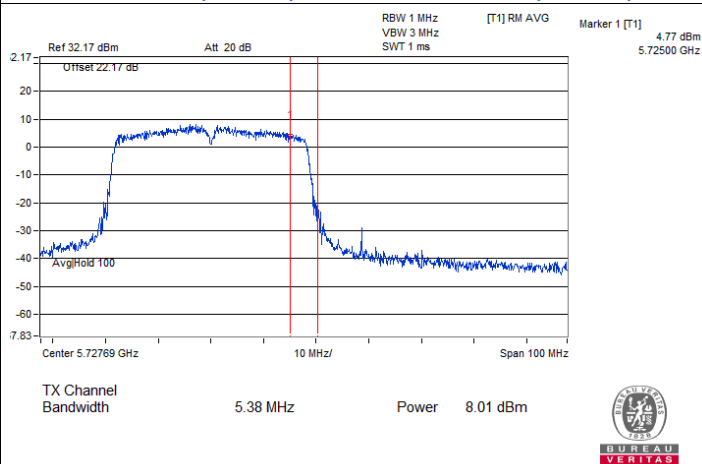
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-2C)



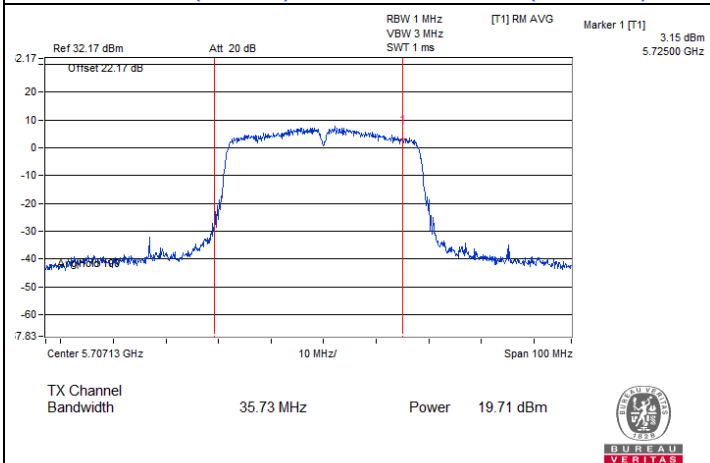
802.11ac (VHT20) / Chain 1 : CH 144 (U-NII-3)



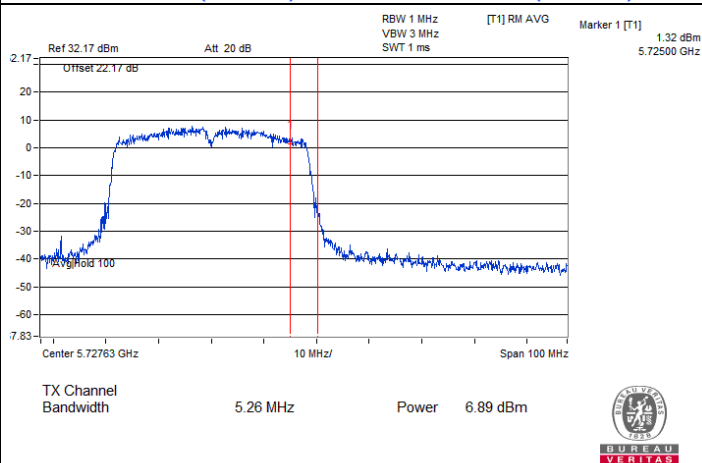
802.11ac (VHT40) / Chain 0 : CH 142 (U-NII-2C)



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

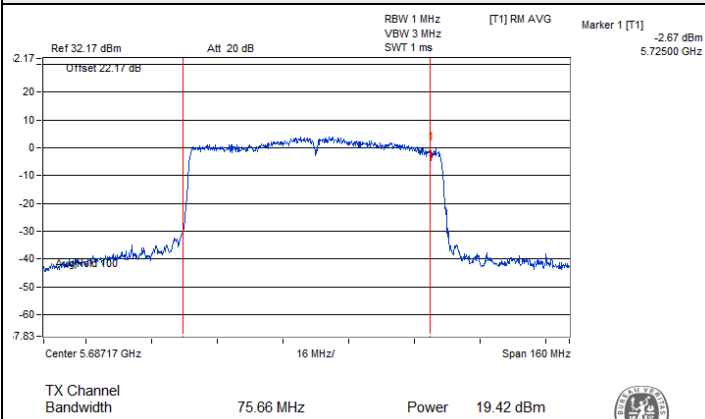


802.11ac (VHT40) / Chain 1 : CH 142 (U-NII-2C)

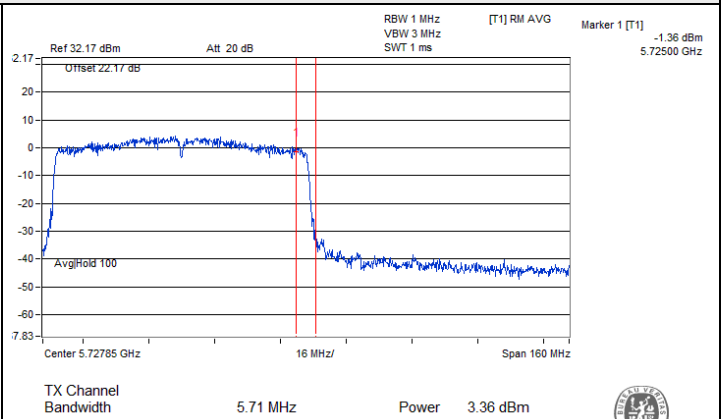


802.11ac (VHT40) / Chain 1 : CH 142 (U-NII-3)

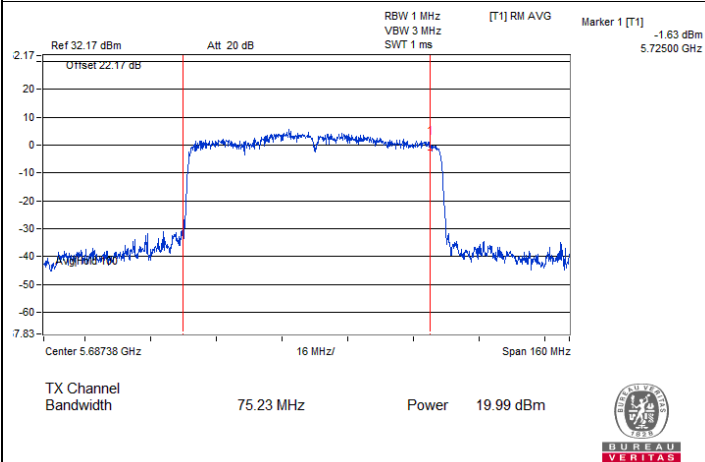
Spectrum Plot for channel straddling



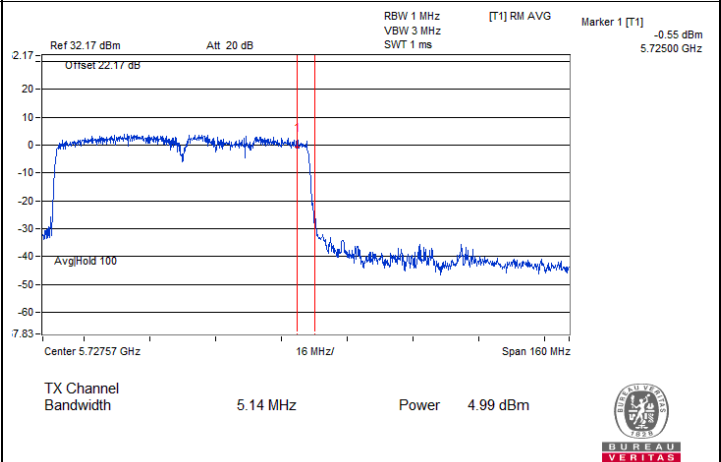
802.11ac (VHT80) / Chain 0 : CH 138 (U-NII-2C)



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:	John Peng
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802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
36	5180	6.52	6.89	9.72	11	Pass
40	5200	6.59	6.88	9.75	11	Pass
48	5240	6.85	6.87	9.87	11	Pass
52	5260	6.81	7.24	10.04	11	Pass
60	5300	6.81	7.15	9.99	11	Pass
64	5320	6.76	7.26	10.03	11	Pass
100	5500	6.72	6.58	9.66	11	Pass
116	5580	6.96	6.72	9.85	11	Pass
140	5700	6.79	6.66	9.74	11	Pass
144 (U-NII-2C)	5720	6.72	6.69	9.72	11	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.37 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
36	5180	5.89	6.83	9.40	11	Pass
40	5200	6.04	6.90	9.50	11	Pass
48	5240	6.68	6.90	9.80	11	Pass
52	5260	6.64	6.25	9.46	11	Pass
60	5300	6.52	6.34	9.44	11	Pass
64	5320	6.69	6.39	9.55	11	Pass
100	5500	6.78	6.86	9.83	11	Pass
116	5580	6.79	7.09	9.95	11	Pass
140	5700	6.55	6.88	9.73	11	Pass
144 (U-NII-2C)	5720	6.64	6.33	9.50	11	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.37 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1			
38	5190	2.03	2.70	5.39	11	Pass
46	5230	5.62	5.72	8.68	11	Pass
54	5270	6.90	6.63	9.78	11	Pass
62	5310	1.33	1.61	4.48	11	Pass
102	5510	2.00	2.10	5.06	11	Pass
110	5550	6.32	6.56	9.45	11	Pass
134	5670	4.24	4.36	7.31	11	Pass
142 (U-NII-2C)	5710	6.77	6.36	9.58	11	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.37 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
42	5210	-3.90	-3.58	0.16	-0.57	11	Pass
58	5290	-4.68	-5.07	0.16	-1.70	11	Pass
106	5530	-2.87	-2.68	0.16	0.40	11	Pass
122	5610	2.26	2.25	0.16	5.43	11	Pass
138 (U-NII-2C)	5690	3.66	4.01	0.16	7.01	11	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.37 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
144 (U-NII-3)	5720	-3.94	-3.24	-0.57	1.65	30	Pass
149	5745	7.81	7.77	10.8	13.02	30	Pass
157	5785	7.60	7.91	10.77	12.99	30	Pass
165	5825	7.84	7.65	10.76	12.98	30	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-3, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
144 (U-NII-3)	5720	-3.70	-3.80	-0.74	1.48	30	Pass
149	5745	7.57	7.48	10.54	12.76	30	Pass
157	5785	7.57	7.31	10.45	12.67	30	Pass
165	5825	7.79	7.35	10.59	12.81	30	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-3, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1				
142 (U-NII-3)	5710	-6.07	-6.35	-3.2	-0.98	30	Pass
151	5755	1.60	1.59	4.61	6.83	30	Pass
159	5795	2.38	1.98	5.19	7.41	30	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-3, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

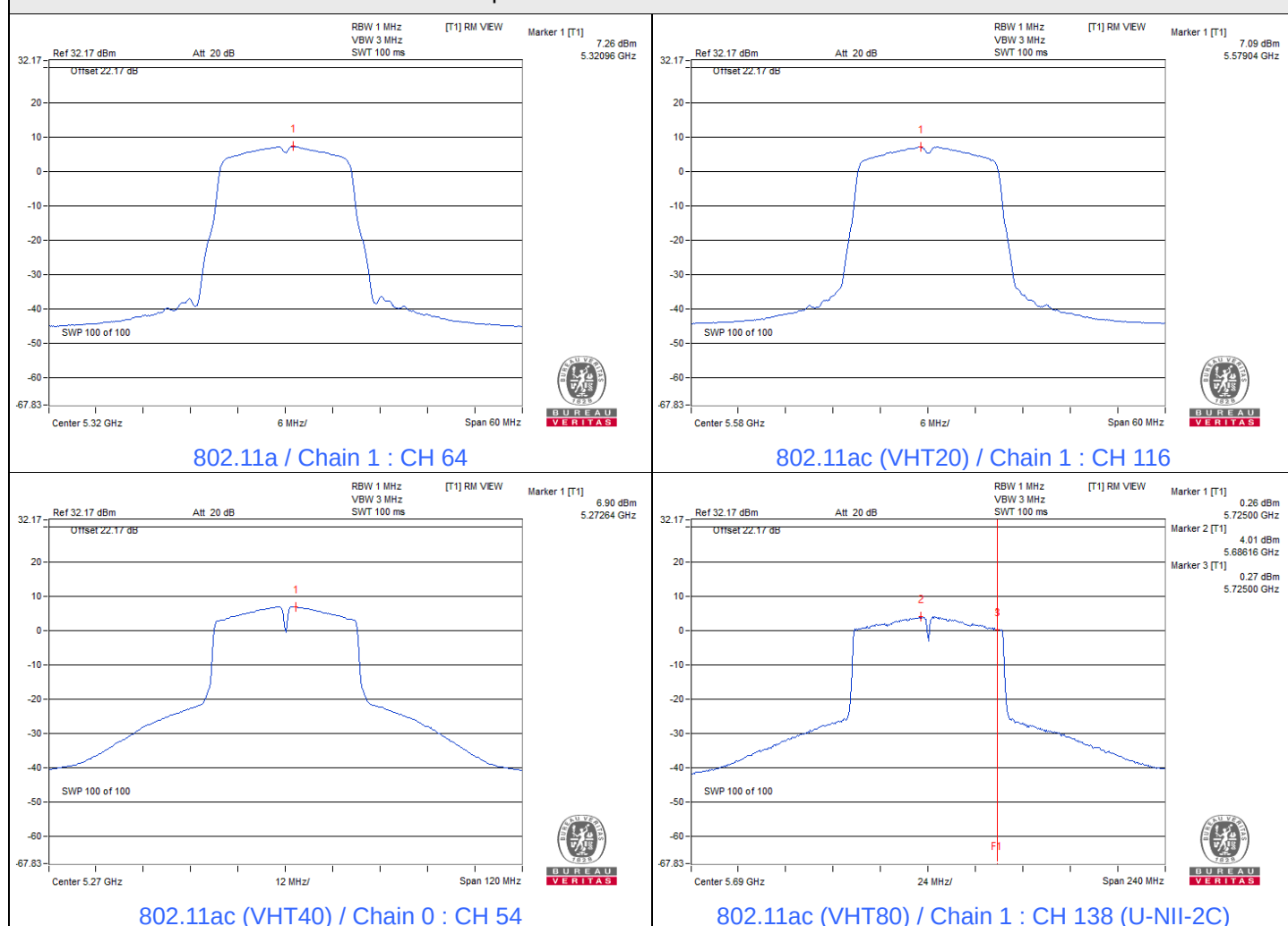
802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		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	-9.34	-8.66	-5.98	0.16	-3.60	30	Pass
155	5775	-5.59	-5.39	-2.48	0.16	-0.10	30	Pass

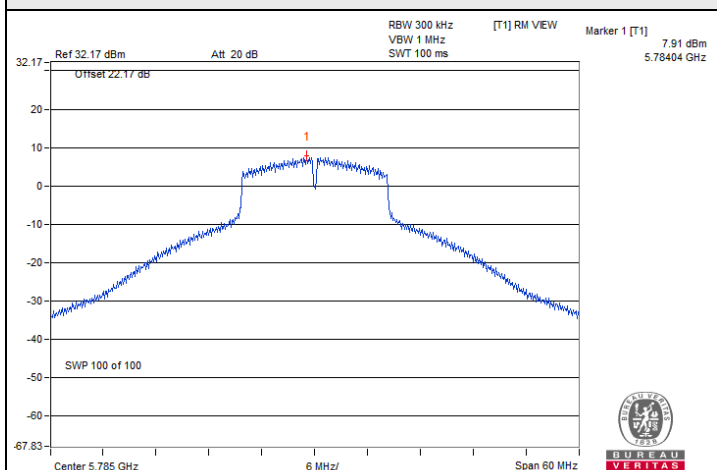
Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-3, the directional gain is 5.37 dBi < 6 dBi, so the power density limit shall not be reduced.

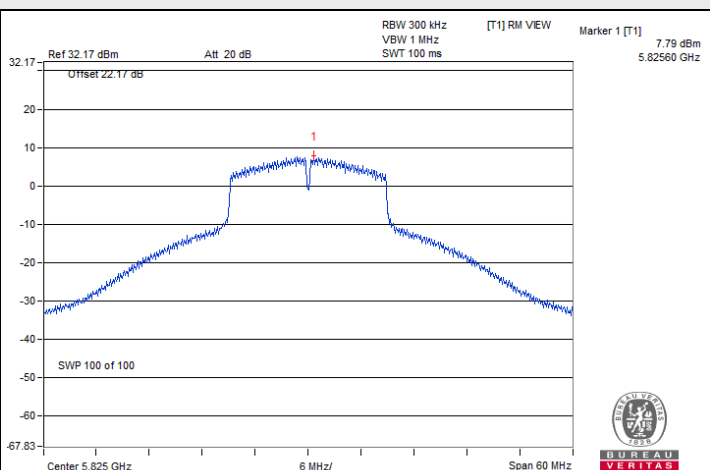
Spectrum Plot of Maximum Value



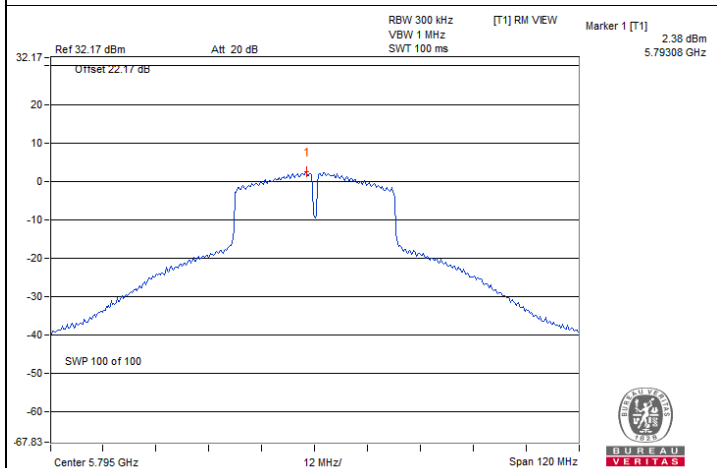
Spectrum Plot of Maximum Value



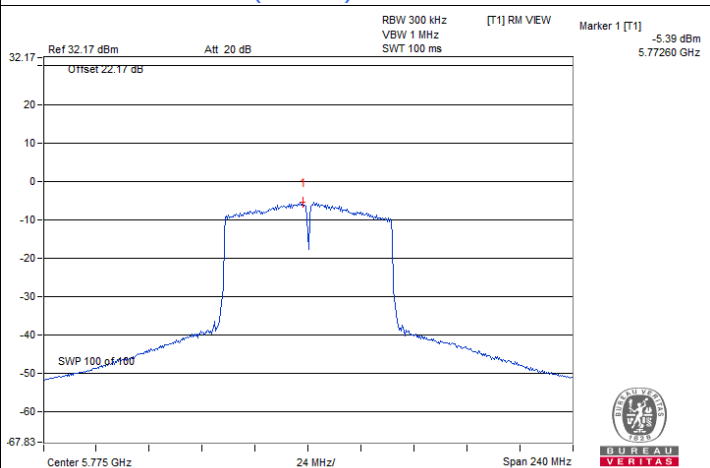
802.11a / Chain 1 : CH 157



802.11ac (VHT20) / Chain 0 : CH 165



802.11ac (VHT40) / Chain 0 : CH 159



802.11ac (VHT80) / Chain 1 : CH 155

7.4 6 dB Bandwidth

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.53	2.40	0.5	Pass
149	5745	15.08	15.66	0.5	Pass
157	5785	15.11	15.02	0.5	Pass
165	5825	15.07	15.08	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	2.47	3.10	0.5	Pass
149	5745	15.10	15.08	0.5	Pass
157	5785	15.13	15.05	0.5	Pass
165	5825	15.13	16.25	0.5	Pass

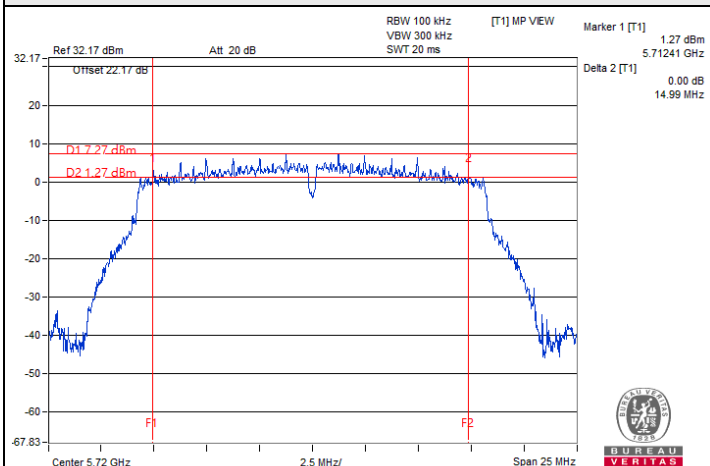
802.11ac (VHT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
142 (U-NII-3)	5710	2.49	2.51	0.5	Pass
151	5755	33.83	35.12	0.5	Pass
159	5795	35.08	35.08	0.5	Pass

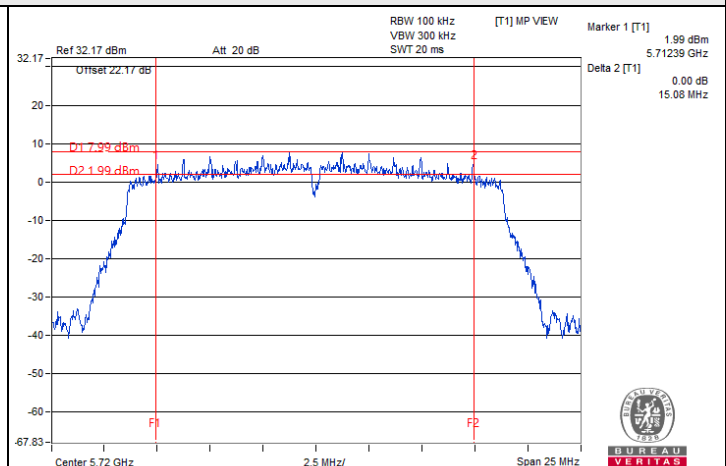
802.11ac (VHT80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
138 (U-NII-3)	5690	2.53	2.53	0.5	Pass
155	5775	73.88	75.08	0.5	Pass

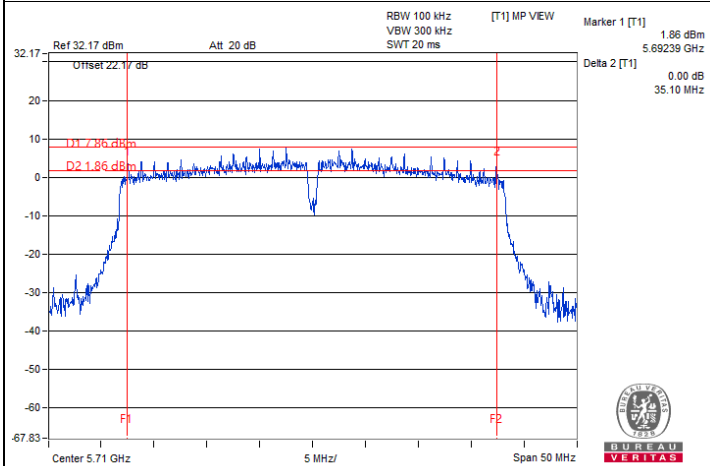
Spectrum Plot of Minimum Value



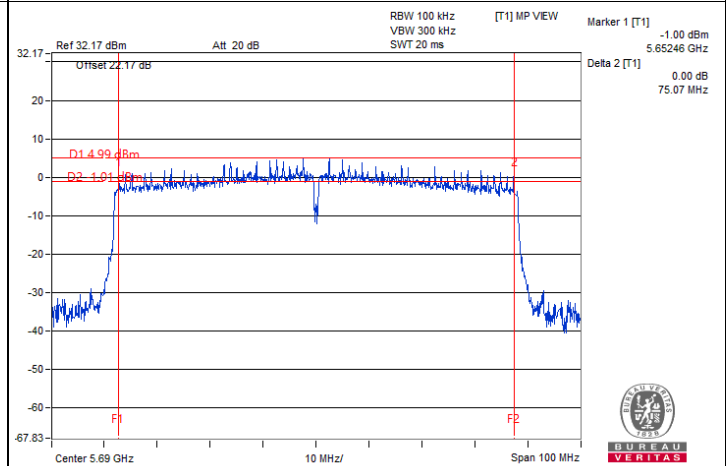
802.11a / Chain 1 : CH 144 (U-NII-3)



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



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



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

Notes:

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

7.5 Occupied Bandwidth

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

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.50	16.44
40	5200	16.44	16.44
48	5240	16.44	16.44
52	5260	16.50	16.38
60	5300	16.38	16.50
64	5320	16.44	16.50
100	5500	16.38	16.50
116	5580	16.44	16.38
140	5700	16.44	16.38
144 (U-NII-2C)	5720	13.28	13.16
144 (U-NII-3)	5720	3.22	3.22
149	5745	24.54	27.18
157	5785	24.48	26.88
165	5825	23.40	24.90

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.50	16.38
40	5200	16.50	16.38
48	5240	16.44	16.38
52	5260	17.58	17.58
60	5300	17.58	17.58
64	5320	17.52	17.58
100	5500	17.58	17.58
116	5580	17.52	17.52
140	5700	17.58	17.58
144 (U-NII-2C)	5720	13.82	13.82
144 (U-NII-3)	5720	3.76	3.76
149	5745	18.06	18.06
157	5785	17.82	18.00
165	5825	17.76	18.30

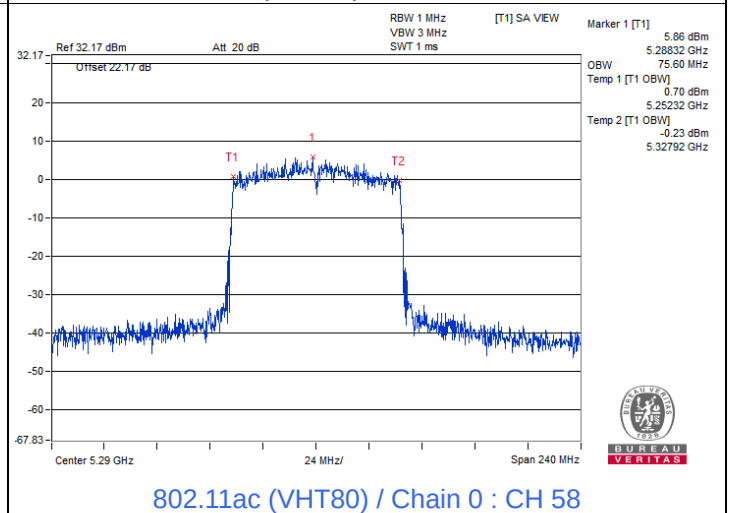
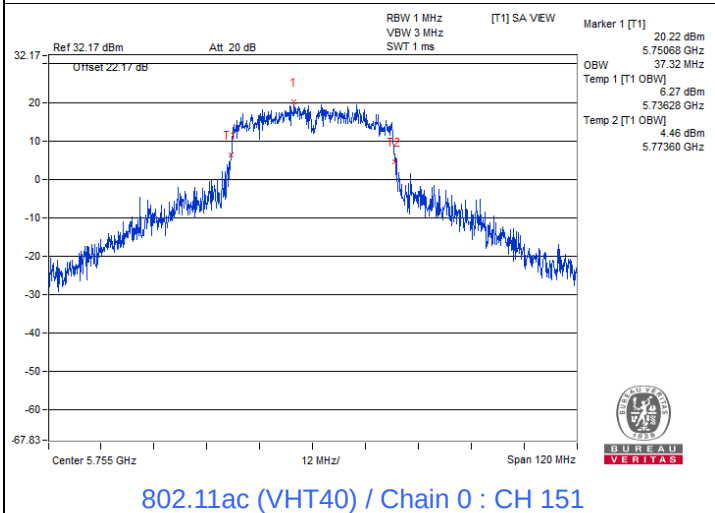
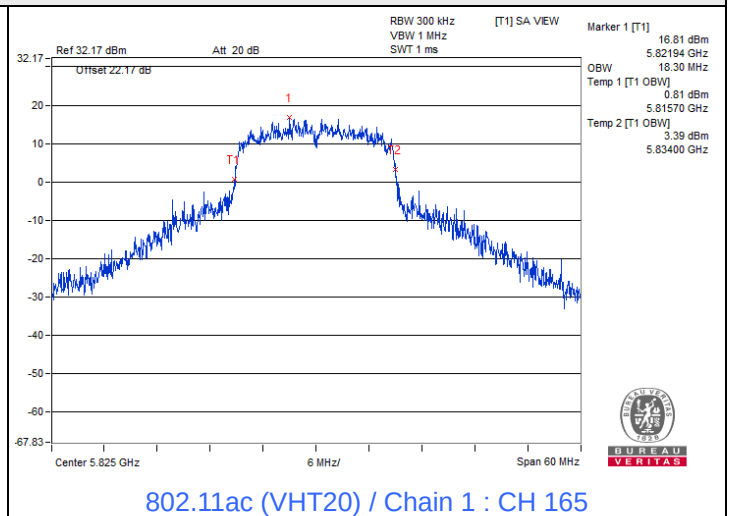
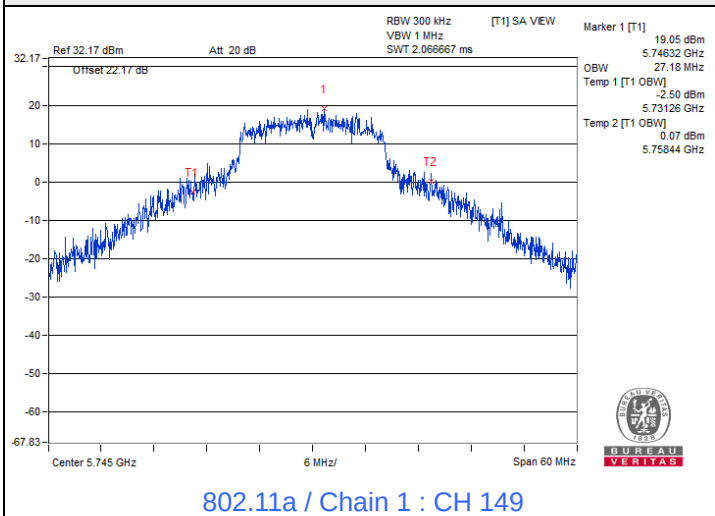
802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.00	36.00
46	5230	36.12	36.12
54	5270	36.00	36.00
62	5310	36.00	36.00
102	5510	36.00	36.12
110	5550	36.24	36.12
134	5670	36.00	36.00
142 (U-NII-2C)	5710	33.00	33.12
142 (U-NII-3)	5710	3.00	2.88
151	5755	37.32	36.72
159	5795	36.84	37.08

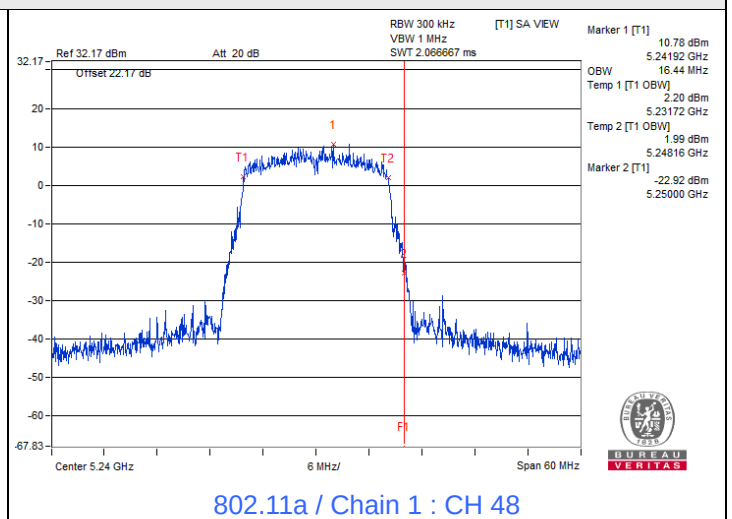
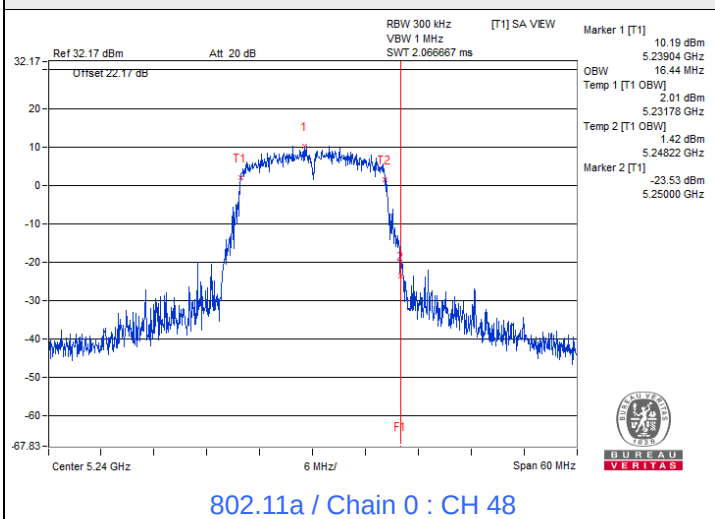
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.36	75.36
58	5290	75.60	75.36
106	5530	75.36	75.12
122	5610	75.36	75.36
138 (U-NII-2C)	5690	72.68	72.68
138 (U-NII-3)	5690	2.68	2.92
155	5775	75.60	75.36

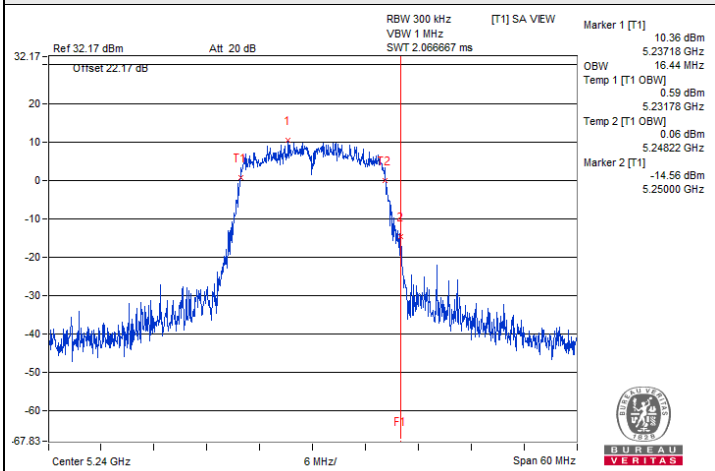
Spectrum Plot of Maximum Value



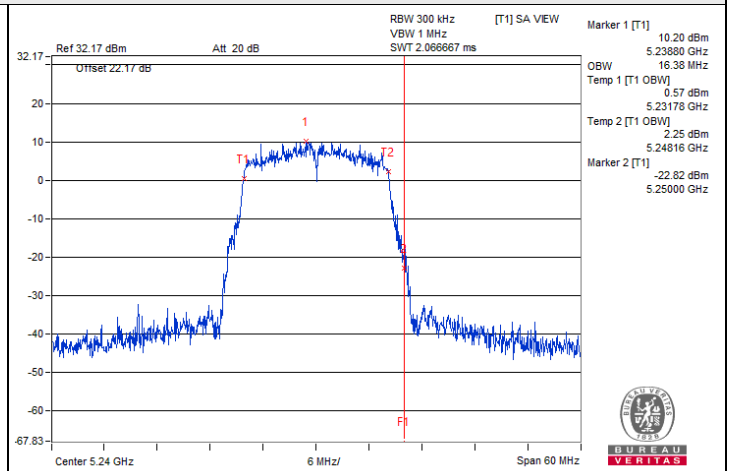
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A)



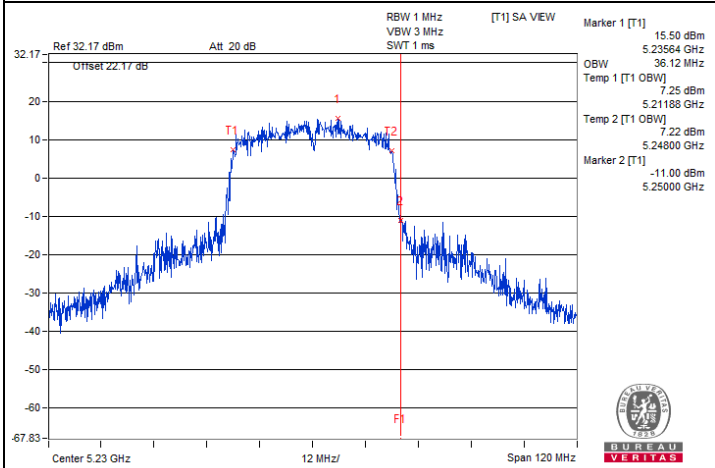
Spectrum Plot for nearby DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A)



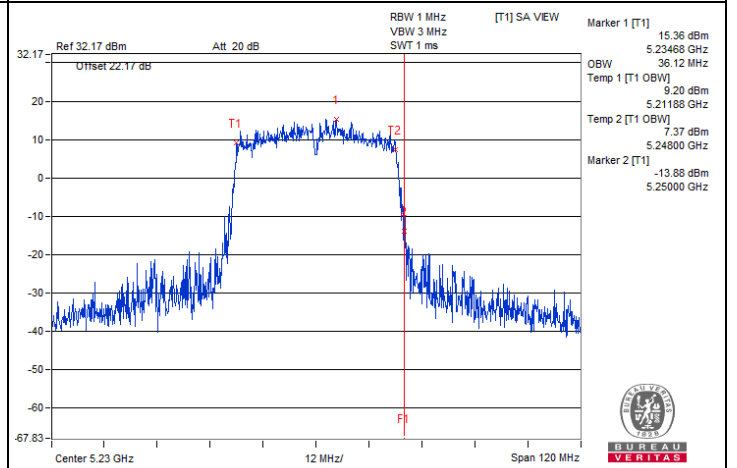
802.11ac (VHT20) / Chain 0 : CH 48



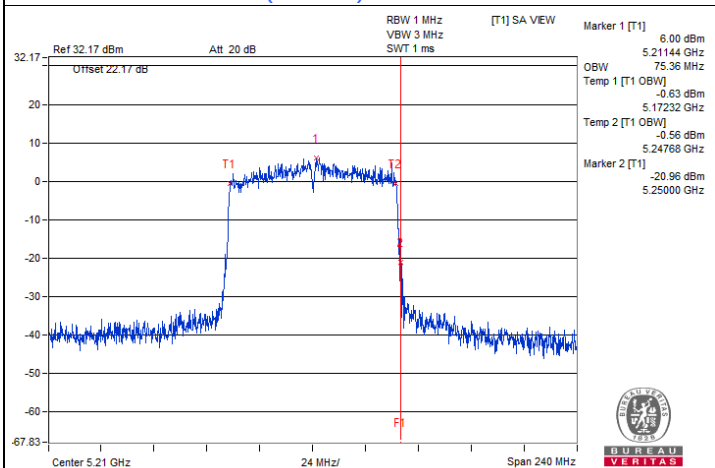
802.11ac (VHT20) / Chain 1 : CH 48



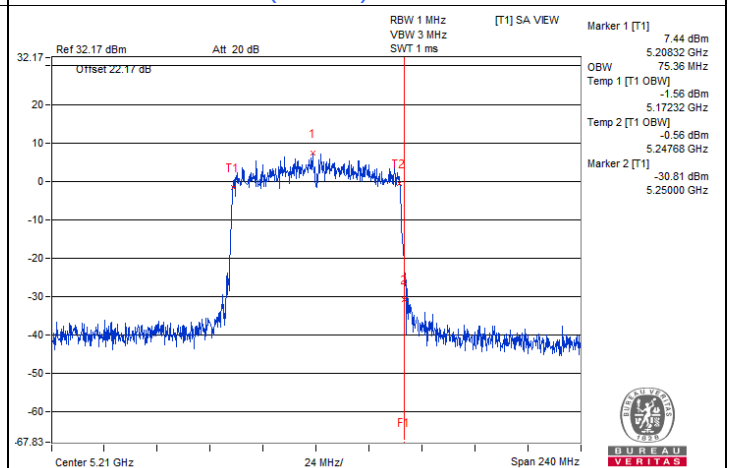
802.11ac (VHT40) / Chain 0 : CH 46



802.11ac (VHT40) / Chain 1 : CH 46

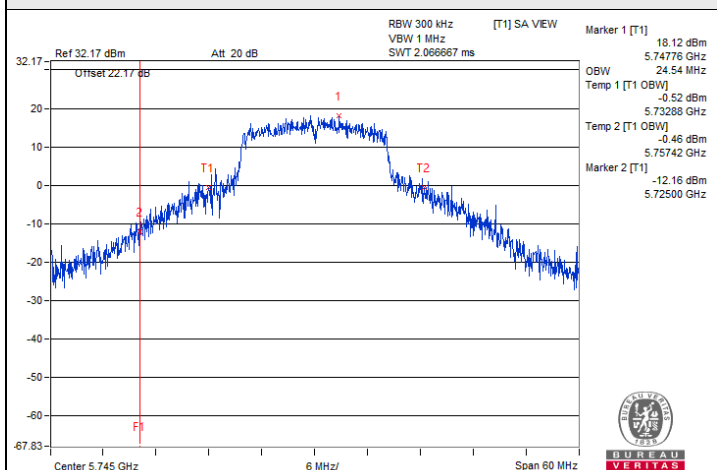


802.11ac (VHT80) / Chain 0 : CH 42

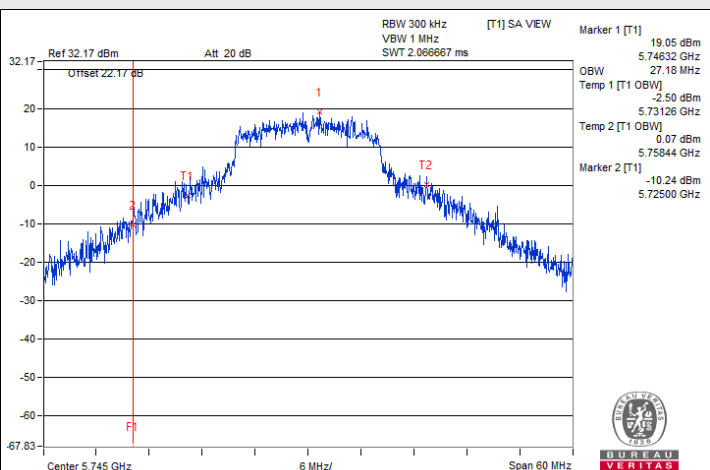


802.11ac (VHT80) / Chain 1 : CH 42

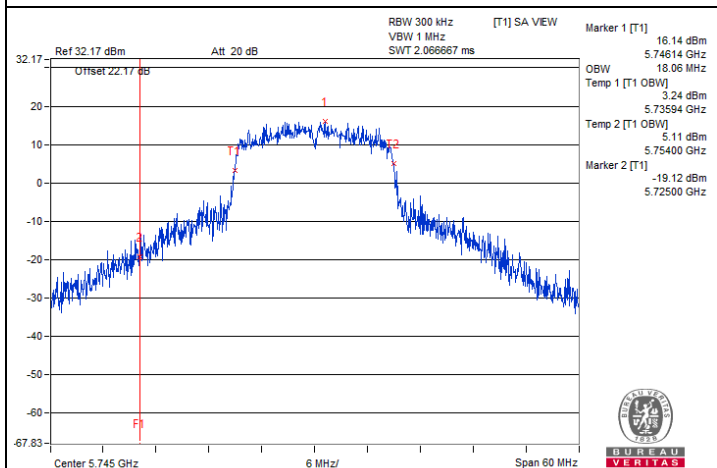
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C)



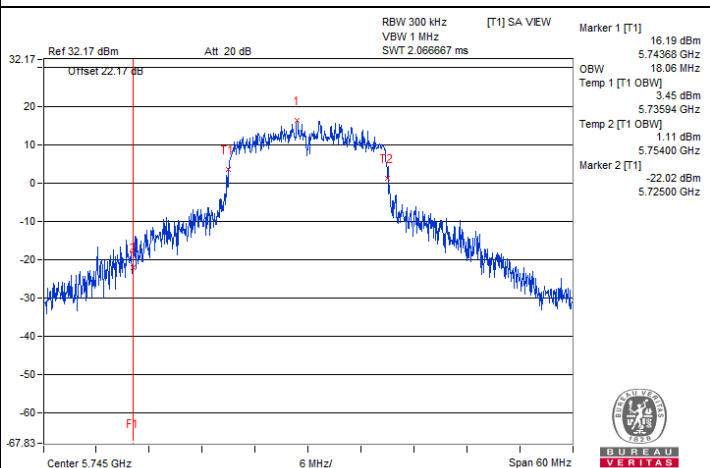
802.11a / Chain 0 : CH 149



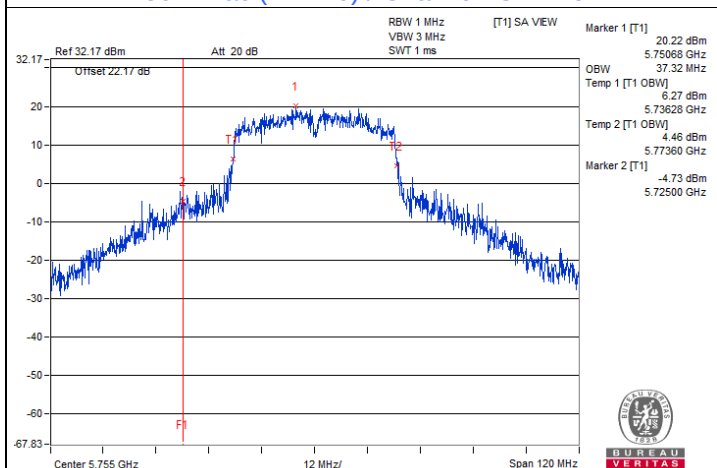
802.11a / Chain 1 : CH 149



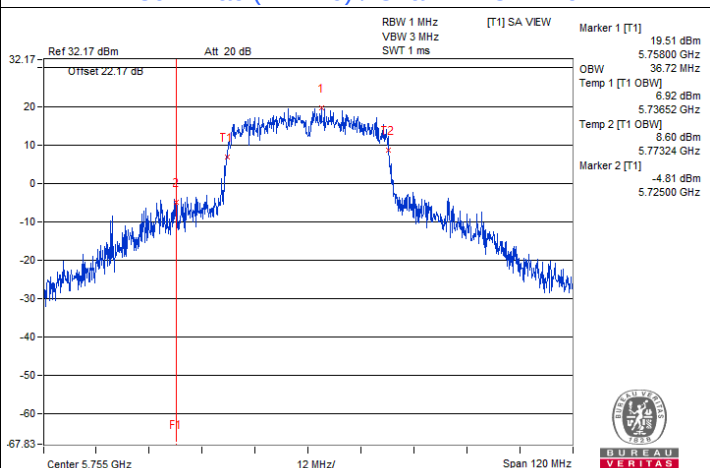
802.11ac (VHT20) / Chain 0 : CH 149



802.11ac (VHT20) / Chain 1 : CH 149

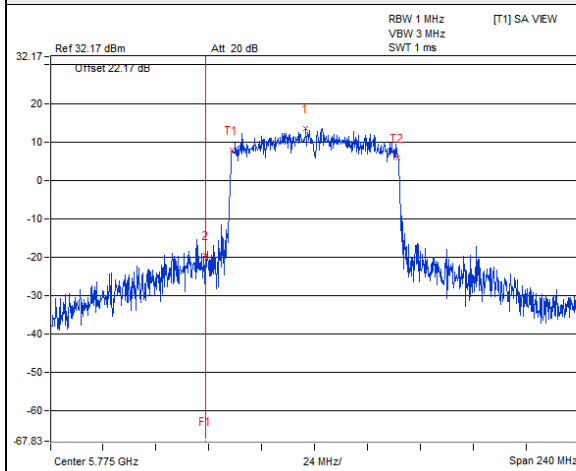


802.11ac (VHT40) / Chain 0 : CH 151

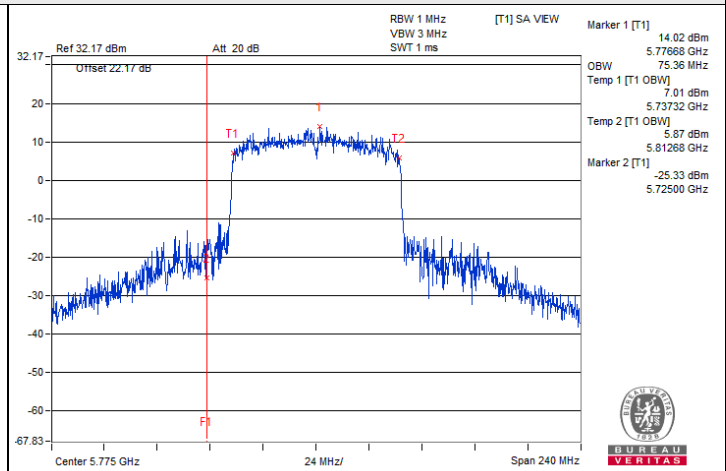


802.11ac (VHT40) / Chain 1 : CH 151

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 Frequency Stability

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

Frequency Stability Versus Temperature									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
49	120	5180.0178	Pass	5180.0167	Pass	5180.0187	Pass	5180.0178	Pass
40	120	5180.0041	Pass	5180	Pass	5180.0034	Pass	5180.0034	Pass
30	120	5179.9947	Pass	5179.9974	Pass	5179.9944	Pass	5179.9957	Pass
20	120	5180.006	Pass	5180.0077	Pass	5180.0063	Pass	5180.0067	Pass
10	120	5180.0229	Pass	5180.0226	Pass	5180.022	Pass	5180.0239	Pass
0	120	5180.0155	Pass	5180.0176	Pass	5180.0149	Pass	5180.0155	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5179.9992	Pass	5179.9995	Pass	5180.001	Pass	5180.0017	Pass
	120	5180.006	Pass	5180.0077	Pass	5180.0063	Pass	5180.0067	Pass
	102	5180.0131	Pass	5180.0141	Pass	5180.0136	Pass	5180.0165	Pass

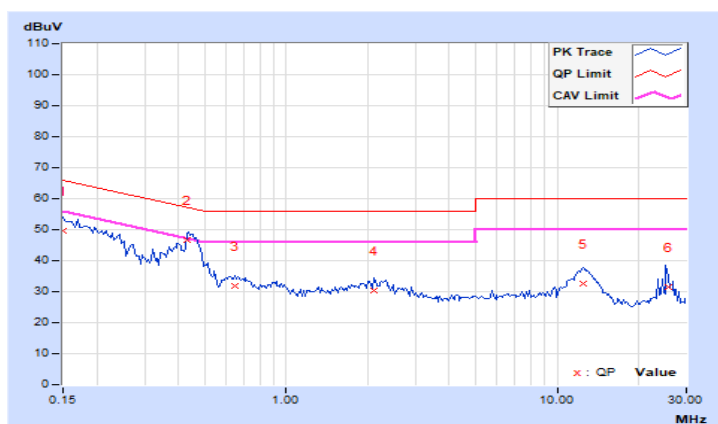
7.7 AC Power Conducted Emissions

RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	150kHz ~ 30MHz	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	Carter Lin		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.96	39.51	21.57	49.47	31.53	66.00	56.00	-16.53	-24.47
2	0.43127	9.97	36.64	24.49	46.61	34.46	57.23	47.23	-10.62	-12.77
3	0.65002	9.98	21.85	13.58	31.83	23.56	56.00	46.00	-24.17	-22.44
4	2.11711	10.06	20.26	13.67	30.32	23.73	56.00	46.00	-25.68	-22.27
5	12.40622	10.64	21.79	14.28	32.43	24.92	60.00	50.00	-27.57	-25.08
6	25.87503	11.19	20.31	13.39	31.50	24.58	60.00	50.00	-28.50	-25.42

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

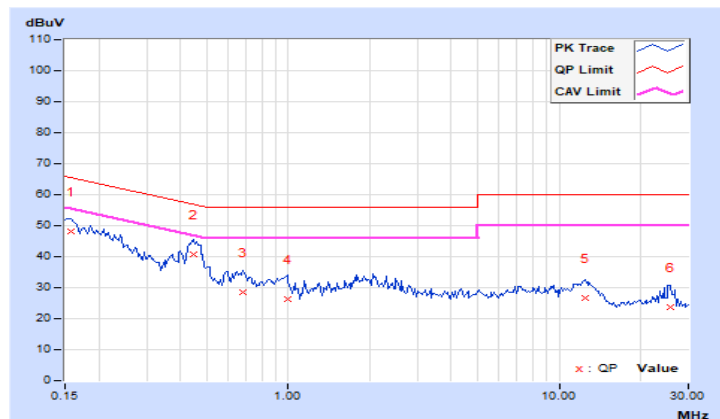


RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Carter Lin		

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	0.15788	9.93	38.29	22.12	48.22	32.05	65.57	55.57	-17.35	-23.52
2	0.44682	9.94	30.76	25.64	40.70	35.58	56.93	46.93	-16.23	-11.35
3	0.68120	9.95	18.51	10.90	28.46	20.85	56.00	46.00	-27.54	-25.15
4	0.98989	9.97	16.38	9.59	26.35	19.56	56.00	46.00	-29.65	-26.44
5	12.43753	10.48	16.12	11.76	26.60	22.24	60.00	50.00	-33.40	-27.76
6	25.87104	10.86	12.88	6.31	23.74	17.17	60.00	50.00	-36.26	-32.83

Remarks:

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



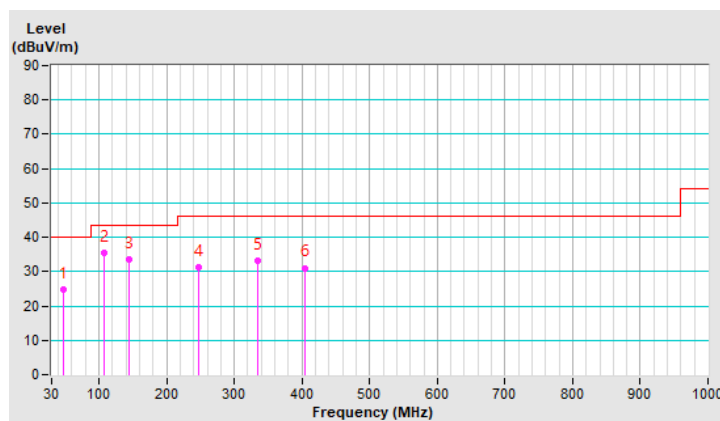
7.8 Unwanted Emissions below 1 GHz

RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120Vac,60Hz	Environmental Conditions	26°C, 68% RH
Tested By	Tom Yang		

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	47.19	24.9 QP	40.0	-15.1	1.00 H	229	37.4	-12.5
2	107.19	35.4 QP	43.5	-8.1	1.50 H	281	50.7	-15.3
3	143.78	33.5 QP	43.5	-10.0	2.00 H	247	45.6	-12.1
4	246.31	31.3 QP	46.0	-14.7	1.00 H	293	44.2	-12.9
5	335.38	33.1 QP	46.0	-12.9	1.00 H	317	42.9	-9.8
6	404.10	31.1 QP	46.0	-14.9	1.00 H	32	38.9	-7.8

Remarks:

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

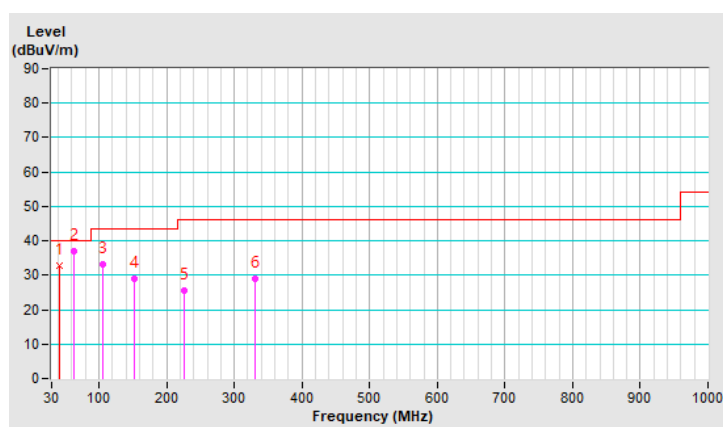


RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120Vac,60Hz	Environmental Conditions	26°C, 68% RH
Tested By	Tom Yang		

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	42.17	32.9 QP	40.0	-7.1	2.00 V	76	45.7	-12.8
2	63.27	36.9 QP	40.0	-3.1	1.00 V	224	50.3	-13.4
3	105.93	33.0 QP	43.5	-10.5	1.50 V	355	48.5	-15.5
4	152.27	29.0 QP	43.5	-14.5	1.00 V	264	41.0	-12.0
5	226.69	25.4 QP	46.0	-20.6	1.00 V	360	40.3	-14.9
6	330.41	28.8 QP	46.0	-17.2	1.50 V	360	38.7	-9.9

Remarks:

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



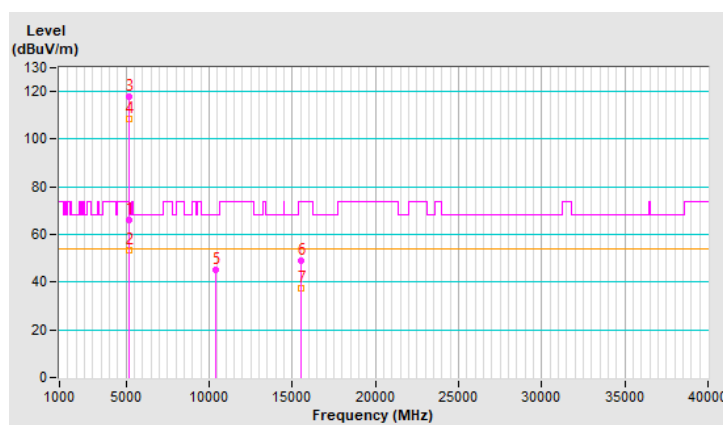
7.9 Unwanted Emissions above 1 GHz

RF Mode	802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.0 PK	74.0	-8.0	3.07 H	168	61.5	4.5
2	5150.00	53.5 AV	54.0	-0.5	3.07 H	168	49.0	4.5
3	*5180.00	117.7 PK			3.07 H	168	113.2	4.5
4	*5180.00	108.7 AV			3.07 H	168	104.2	4.5
5	#10360.00	45.3 PK	68.2	-22.9	1.58 H	279	31.3	14.0
6	15540.00	48.8 PK	74.0	-25.2	1.63 H	174	34.8	14.0
7	15540.00	37.3 AV	54.0	-16.7	1.63 H	174	23.3	14.0

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.

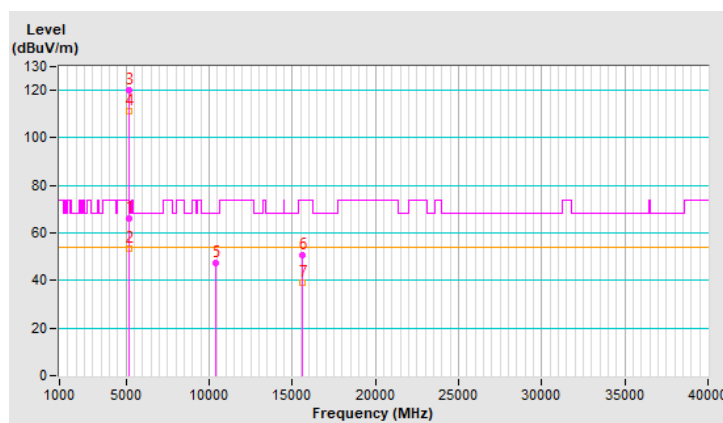


RF Mode	802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.2 PK	74.0	-7.8	2.29 H	153	61.7	4.5
2	5150.00	53.2 AV	54.0	-0.8	2.29 H	153	48.7	4.5
3	*5200.00	120.2 PK			2.29 H	153	115.9	4.3
4	*5200.00	111.4 AV			2.29 H	153	107.1	4.3
5	#10400.00	47.1 PK	68.2	-21.1	1.57 H	266	33.0	14.1
6	15600.00	50.6 PK	74.0	-23.4	1.67 H	167	36.3	14.3
7	15600.00	39.2 AV	54.0	-14.8	1.67 H	167	24.9	14.3

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.

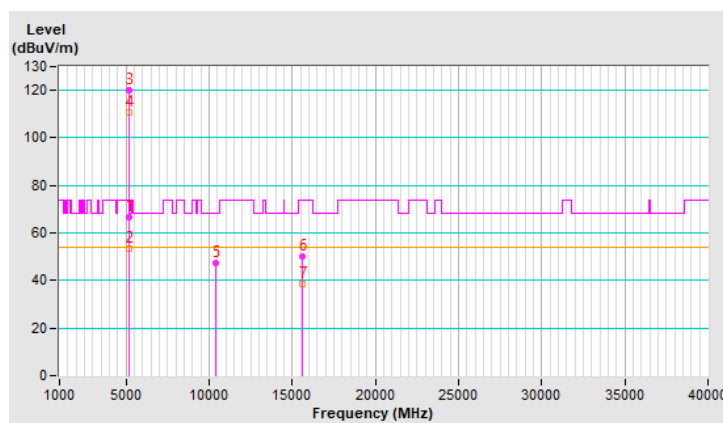


RF Mode	802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	66.7 PK	74.0	-7.3	2.27 V	201	62.2	4.5
2	5150.00	53.5 AV	54.0	-0.5	2.27 V	201	49.0	4.5
3	*5200.00	120.2 PK			2.27 V	201	115.9	4.3
4	*5200.00	110.9 AV			2.27 V	201	106.6	4.3
5	#10400.00	47.4 PK	68.2	-20.8	1.63 V	190	33.3	14.1
6	15600.00	50.2 PK	74.0	-23.8	1.45 V	205	35.9	14.3
7	15600.00	38.6 AV	54.0	-15.4	1.45 V	205	24.3	14.3

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.

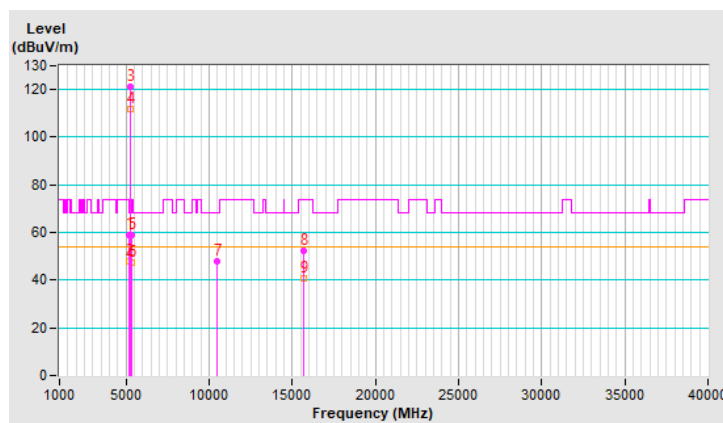


RF Mode	802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	59.1 PK	74.0	-14.9	2.05 H	152	54.6	4.5
2	5150.00	48.1 AV	54.0	-5.9	2.05 H	152	43.6	4.5
3	*5240.00	121.0 PK			2.05 H	152	117.0	4.0
4	*5240.00	111.7 AV			2.05 H	152	107.7	4.0
5	5350.00	58.9 PK	74.0	-15.1	2.05 H	152	54.7	4.2
6	5350.00	47.5 AV	54.0	-6.5	2.05 H	152	43.3	4.2
7	#10480.00	47.9 PK	68.2	-20.3	1.59 H	259	33.8	14.1
8	15720.00	52.1 PK	74.0	-21.9	1.65 H	156	37.7	14.4
9	15720.00	40.6 AV	54.0	-13.4	1.65 H	156	26.2	14.4

Remarks:

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

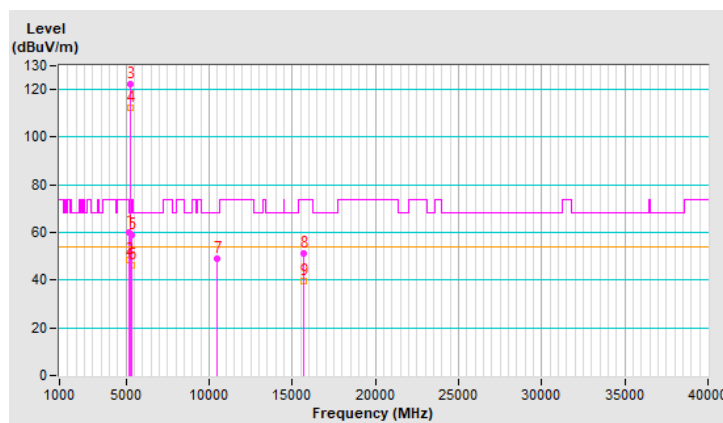


RF Mode	802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	2.11 V	221	55.4	4.5
2	5150.00	48.7 AV	54.0	-5.3	2.11 V	221	44.2	4.5
3	*5240.00	122.2 PK			2.11 V	221	118.2	4.0
4	*5240.00	112.2 AV			2.11 V	221	108.2	4.0
5	5350.00	58.9 PK	74.0	-15.1	2.11 V	221	54.7	4.2
6	5350.00	46.3 AV	54.0	-7.7	2.11 V	221	42.1	4.2
7	#10480.00	48.9 PK	68.2	-19.3	1.58 V	194	34.8	14.1
8	15720.00	51.2 PK	74.0	-22.8	1.50 V	206	36.8	14.4
9	15720.00	39.7 AV	54.0	-14.3	1.50 V	206	25.3	14.4

Remarks:

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

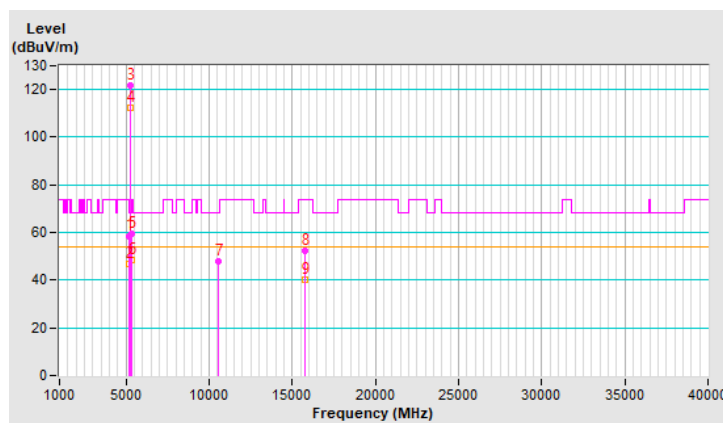


RF Mode	802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.5 PK	74.0	-15.5	2.05 H	146	54.0	4.5
2	5150.00	47.0 AV	54.0	-7.0	2.05 H	146	42.5	4.5
3	*5260.00	121.7 PK			2.05 H	146	117.7	4.0
4	*5260.00	112.2 AV			2.05 H	146	108.2	4.0
5	5350.00	59.4 PK	74.0	-14.6	2.05 H	146	55.2	4.2
6	5350.00	48.4 AV	54.0	-5.6	2.05 H	146	44.2	4.2
7	#10520.00	47.8 PK	68.2	-20.4	1.58 H	250	33.6	14.2
8	15780.00	52.1 PK	74.0	-21.9	1.70 H	146	37.6	14.5
9	15780.00	40.3 AV	54.0	-13.7	1.70 H	146	25.8	14.5

Remarks:

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

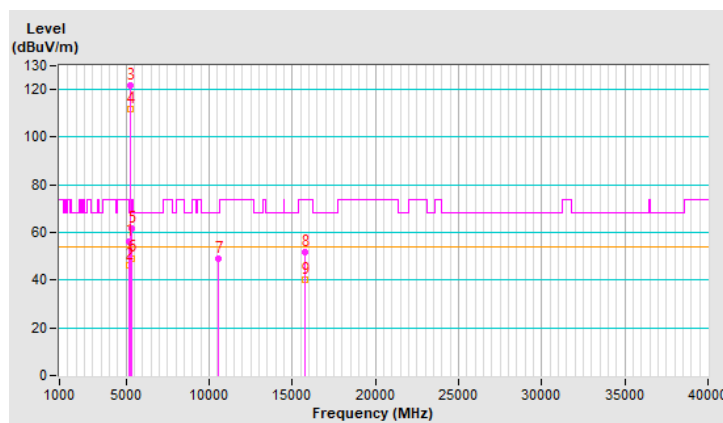


RF Mode	802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	56.3 PK	74.0	-17.7	2.23 V	220	51.8	4.5
2	5150.00	46.0 AV	54.0	-8.0	2.23 V	220	41.5	4.5
3	*5260.00	121.8 PK			2.23 V	220	117.8	4.0
4	*5260.00	111.9 AV			2.23 V	220	107.9	4.0
5	5350.00	61.5 PK	74.0	-12.5	2.23 V	220	57.3	4.2
6	5350.00	49.3 AV	54.0	-4.7	2.23 V	220	45.1	4.2
7	#10520.00	49.0 PK	68.2	-19.2	1.59 V	209	34.8	14.2
8	15780.00	52.0 PK	74.0	-22.0	1.48 V	220	37.5	14.5
9	15780.00	40.2 AV	54.0	-13.8	1.48 V	220	25.7	14.5

Remarks:

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

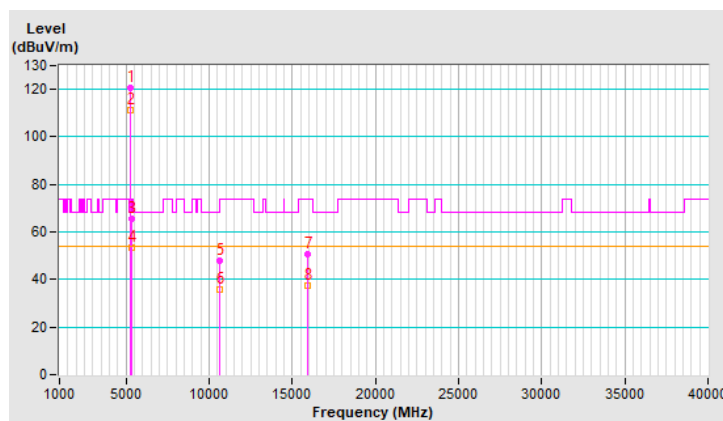


RF Mode	802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	120.6 PK			1.96 H	153	116.6	4.0
2	*5300.00	111.3 AV			1.96 H	153	107.3	4.0
3	5350.00	65.5 PK	74.0	-8.5	1.96 H	153	61.3	4.2
4	5350.00	53.5 AV	54.0	-0.5	1.96 H	153	49.3	4.2
5	10600.00	48.1 PK	74.0	-25.9	1.64 H	253	34.5	13.6
6	10600.00	35.6 AV	54.0	-18.4	1.64 H	253	22.0	13.6
7	15900.00	50.6 PK	74.0	-23.4	1.64 H	168	36.2	14.4
8	15900.00	37.6 AV	54.0	-16.4	1.64 H	168	23.2	14.4

Remarks:

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

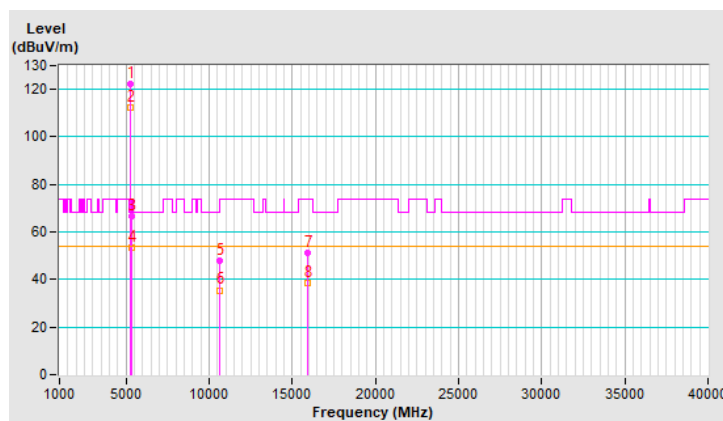


RF Mode	802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	122.3 PK			2.30 V	213	118.3	4.0
2	*5300.00	112.2 AV			2.30 V	213	108.2	4.0
3	5350.00	66.4 PK	74.0	-7.6	2.30 V	213	62.2	4.2
4	5350.00	53.3 AV	54.0	-0.7	2.30 V	213	49.1	4.2
5	10600.00	47.9 PK	74.0	-26.1	1.53 V	192	34.3	13.6
6	10600.00	35.5 AV	54.0	-18.5	1.53 V	192	21.9	13.6
7	15900.00	51.1 PK	74.0	-22.9	1.53 V	199	36.7	14.4
8	15900.00	38.5 AV	54.0	-15.5	1.53 V	199	24.1	14.4

Remarks:

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

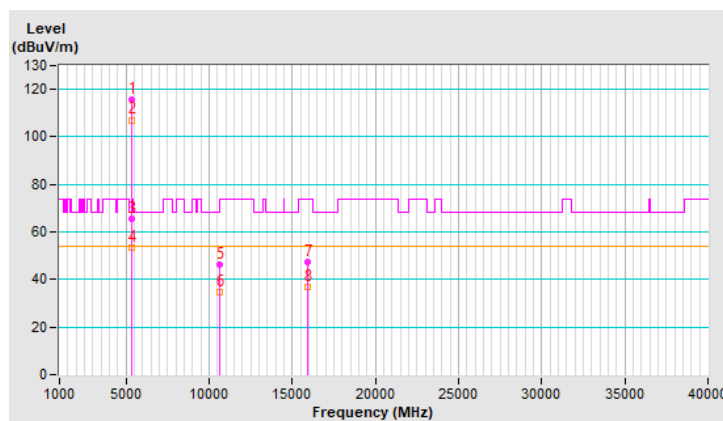


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	115.9 PK			2.37 H	155	111.8	4.1
2	*5320.00	107.1 AV			2.37 H	155	103.0	4.1
3	5350.00	65.4 PK	74.0	-8.6	2.37 H	155	61.2	4.2
4	5350.00	53.4 AV	54.0	-0.6	2.37 H	155	49.2	4.2
5	10640.00	46.0 PK	74.0	-28.0	1.53 H	291	32.3	13.7
6	10640.00	34.8 AV	54.0	-19.2	1.53 H	291	21.1	13.7
7	15960.00	47.6 PK	74.0	-26.4	1.60 H	160	32.7	14.9
8	15960.00	36.7 AV	54.0	-17.3	1.60 H	160	21.8	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.

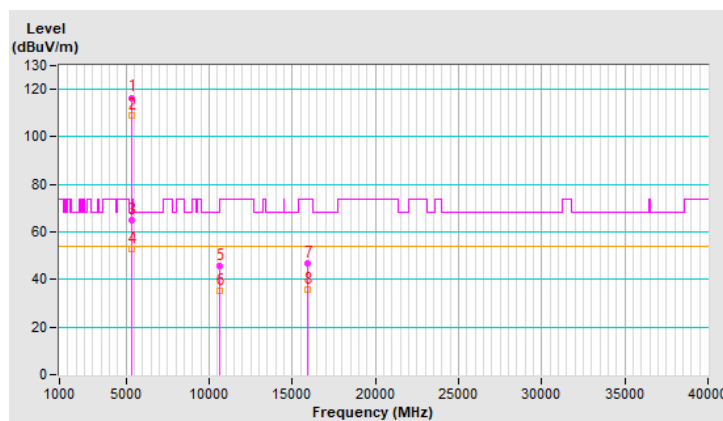


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	116.5 PK			3.44 V	208	112.4	4.1
2	*5320.00	108.8 AV			3.44 V	208	104.7	4.1
3	5350.00	65.1 PK	74.0	-8.9	3.44 V	208	60.9	4.2
4	5350.00	52.9 AV	54.0	-1.1	3.44 V	208	48.7	4.2
5	10640.00	45.8 PK	74.0	-28.2	1.59 V	207	32.1	13.7
6	10640.00	35.2 AV	54.0	-18.8	1.59 V	207	21.5	13.7
7	15960.00	46.8 PK	74.0	-27.2	1.51 V	207	31.9	14.9
8	15960.00	35.8 AV	54.0	-18.2	1.51 V	207	20.9	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.

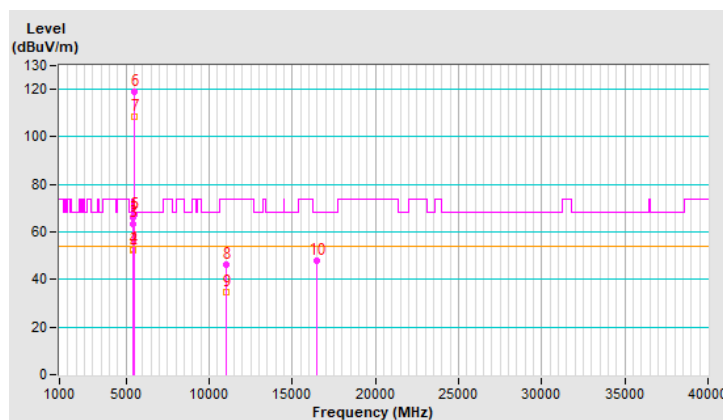


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	5455.54	65.9 PK	74.0	-8.1	1.00 H	145	61.5	4.4
2	5455.54	52.2 AV	54.0	-1.8	1.00 H	145	47.8	4.4
3	5460.00	63.6 PK	74.0	-10.4	1.00 H	145	59.2	4.4
4	5460.00	52.7 AV	54.0	-1.3	1.00 H	145	48.3	4.4
5	#5470.00	67.3 PK	68.2	-0.9	1.00 H	145	62.9	4.4
6	*5500.00	119.1 PK			1.00 H	145	114.6	4.5
7	*5500.00	108.6 AV			1.00 H	145	104.1	4.5
8	11000.00	46.1 PK	74.0	-27.9	1.57 H	281	31.5	14.6
9	11000.00	34.9 AV	54.0	-19.1	1.57 H	281	20.3	14.6
10	#16500.00	48.1 PK	68.2	-20.1	1.62 H	168	31.3	16.8

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.

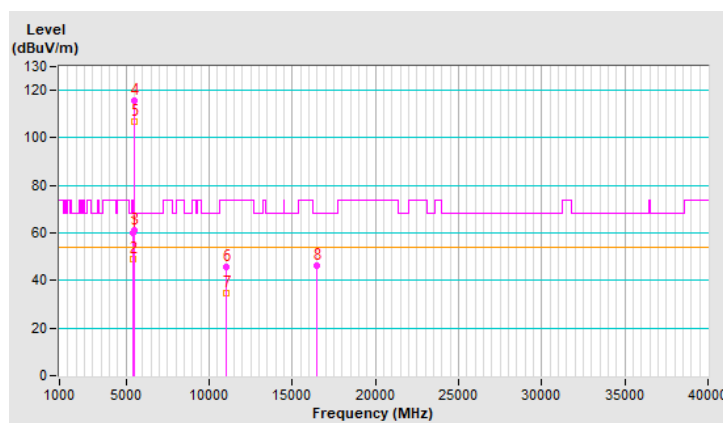


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	59.9 PK	74.0	-14.1	1.24 V	188	55.5	4.4
2	5460.00	49.1 AV	54.0	-4.9	1.24 V	188	44.7	4.4
3	#5470.00	61.3 PK	68.2	-6.9	1.24 V	188	56.9	4.4
4	*5500.00	115.7 PK			1.24 V	188	111.2	4.5
5	*5500.00	106.9 AV			1.24 V	188	102.4	4.5
6	11000.00	45.6 PK	74.0	-28.4	1.55 V	204	31.0	14.6
7	11000.00	34.7 AV	54.0	-19.3	1.55 V	204	20.1	14.6
8	#16500.00	46.5 PK	68.2	-21.7	1.42 V	201	29.7	16.8

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.

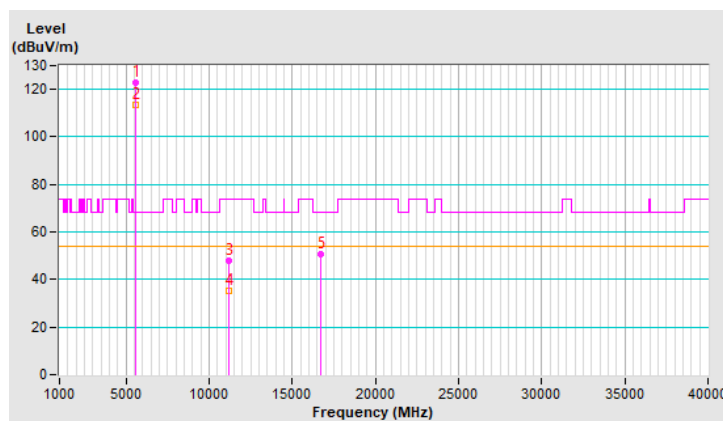


RF Mode	802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	123.0 PK			1.00 H	136	118.6	4.4
2	*5580.00	113.6 AV			1.00 H	136	109.2	4.4
3	11160.00	47.9 PK	74.0	-26.1	1.66 H	253	33.9	14.0
4	11160.00	35.2 AV	54.0	-18.8	1.66 H	253	21.2	14.0
5	#16740.00	50.7 PK	68.2	-17.5	1.63 H	169	32.4	18.3

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.

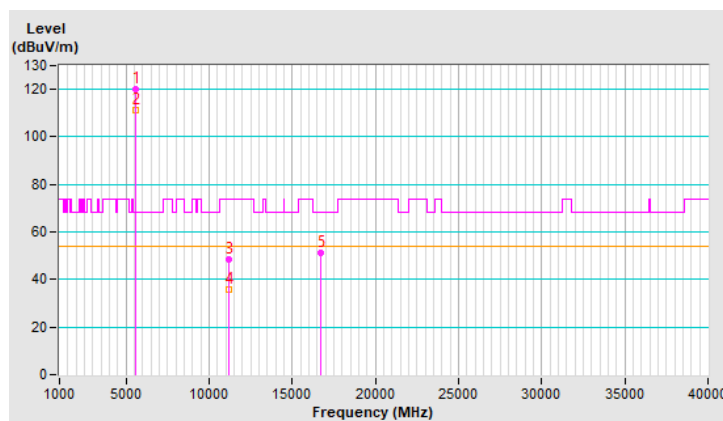


RF Mode	802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	120.1 PK			1.23 V	170	115.7	4.4
2	*5580.00	111.2 AV			1.23 V	170	106.8	4.4
3	11160.00	48.5 PK	74.0	-25.5	1.50 V	206	34.5	14.0
4	11160.00	36.0 AV	54.0	-18.0	1.50 V	206	22.0	14.0
5	#16740.00	51.2 PK	68.2	-17.0	1.56 V	188	32.9	18.3

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.

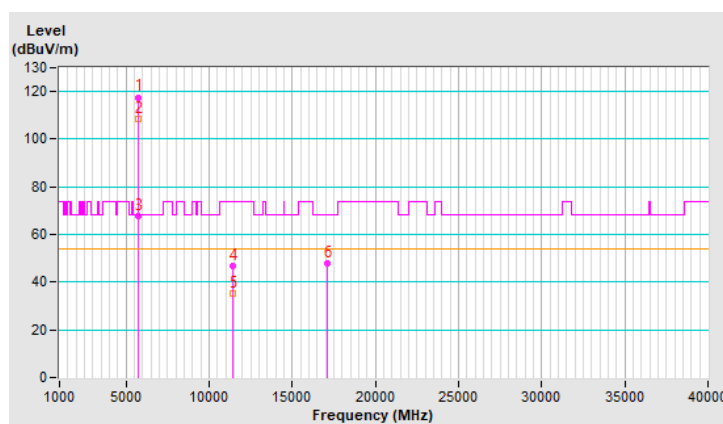


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	117.6 PK			1.02 H	142	113.1	4.5
2	*5700.00	108.4 AV			1.02 H	142	103.9	4.5
3	#5725.00	67.6 PK	68.2	-0.6	1.02 H	142	63.0	4.6
4	11400.00	46.6 PK	74.0	-27.4	1.59 H	282	31.6	15.0
5	11400.00	35.3 AV	54.0	-18.7	1.59 H	282	20.3	15.0
6	#17100.00	47.9 PK	68.2	-20.3	1.64 H	174	28.6	19.3

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.

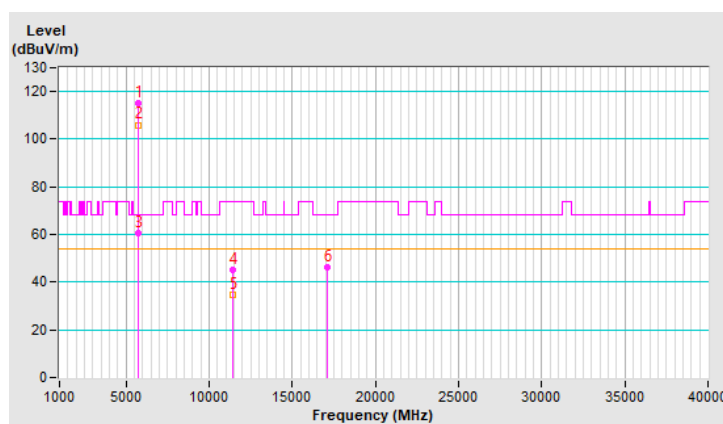


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	115.3 PK			1.28 V	161	110.8	4.5
2	*5700.00	106.0 AV			1.28 V	161	101.5	4.5
3	#5725.00	60.6 PK	68.2	-7.6	1.28 V	161	56.0	4.6
4	11400.00	45.2 PK	74.0	-28.8	1.57 V	210	30.2	15.0
5	11400.00	34.6 AV	54.0	-19.4	1.57 V	210	19.6	15.0
6	#17100.00	46.0 PK	68.2	-22.2	1.37 V	216	26.7	19.3

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.

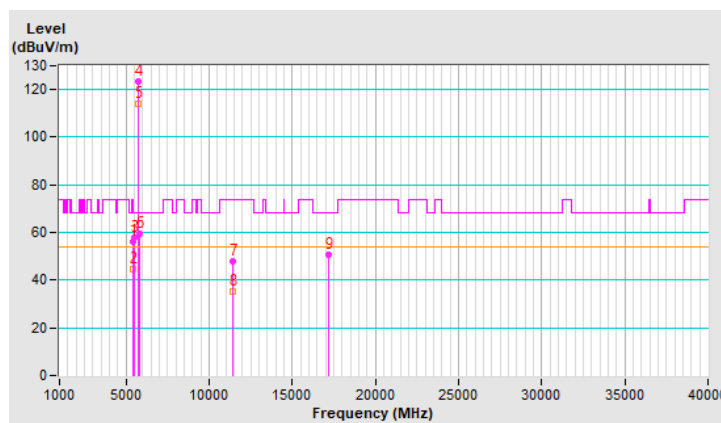


RF Mode	802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	56.2 PK	74.0	-17.8	1.01 H	143	51.8	4.4
2	5460.00	44.8 AV	54.0	-9.2	1.01 H	143	40.4	4.4
3	#5470.00	57.8 PK	68.2	-10.4	1.01 H	143	53.4	4.4
4	*5720.00	123.4 PK			1.01 H	143	118.8	4.6
5	*5720.00	114.0 AV			1.01 H	143	109.4	4.6
6	#5850.00	59.7 PK	68.2	-8.5	1.01 H	143	54.6	5.1
7	11440.00	48.0 PK	74.0	-26.0	1.64 H	269	33.1	14.9
8	11440.00	35.1 AV	54.0	-18.9	1.64 H	269	20.2	14.9
9	#17160.00	50.6 PK	68.2	-17.6	1.67 H	165	31.5	19.1

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.

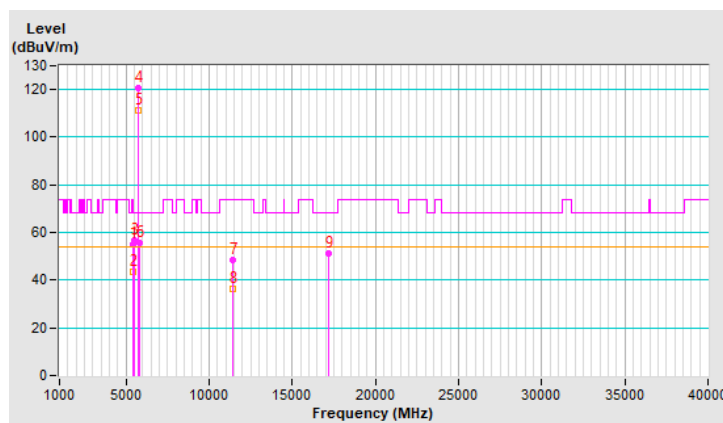


RF Mode	802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	55.3 PK	74.0	-18.7	1.25 V	177	50.9	4.4
2	5460.00	43.7 AV	54.0	-10.3	1.25 V	177	39.3	4.4
3	#5470.00	56.8 PK	68.2	-11.4	1.25 V	177	52.4	4.4
4	*5720.00	120.5 PK			1.25 V	177	115.9	4.6
5	*5720.00	111.5 AV			1.25 V	177	106.9	4.6
6	#5850.00	55.5 PK	68.2	-12.7	1.25 V	177	50.4	5.1
7	11440.00	48.6 PK	74.0	-25.4	1.52 V	206	33.7	14.9
8	11440.00	36.2 AV	54.0	-17.8	1.52 V	206	21.3	14.9
9	#17160.00	51.0 PK	68.2	-17.2	1.54 V	178	31.9	19.1

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.

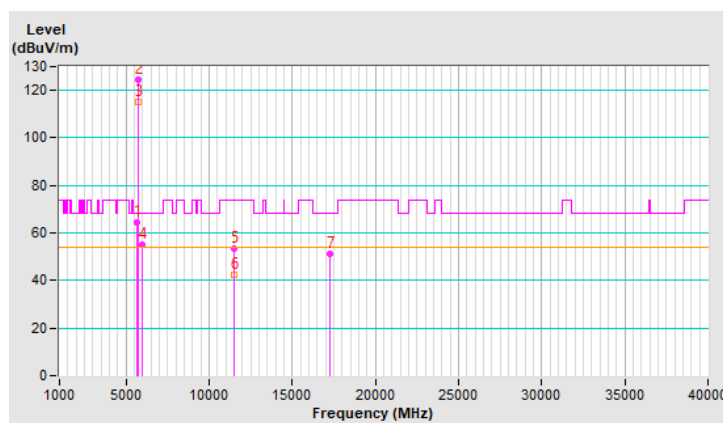


RF Mode	802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5647.35	64.4 PK	68.2	-3.8	1.01 H	144	59.7	4.7
2	*5745.00	124.6 PK			1.01 H	144	120.0	4.6
3	*5745.00	115.2 AV			1.01 H	144	110.6	4.6
4	#5934.71	55.3 PK	68.2	-12.9	1.01 H	144	50.2	5.1
5	11490.00	53.5 PK	74.0	-20.5	1.68 H	137	38.6	14.9
6	11490.00	42.6 AV	54.0	-11.4	1.68 H	137	27.7	14.9
7	#17235.00	51.0 PK	68.2	-17.2	1.57 H	160	32.2	18.8

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.

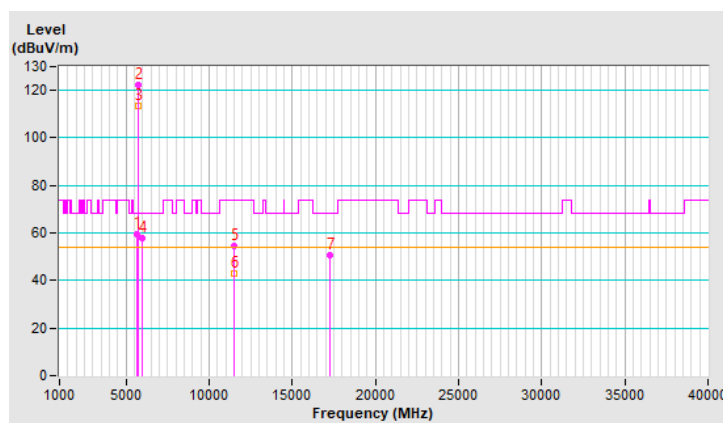


RF Mode	802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5632.78	59.5 PK	68.2	-8.7	3.06 V	190	54.9	4.6
2	*5745.00	122.5 PK			3.06 V	190	117.9	4.6
3	*5745.00	113.5 AV			3.06 V	190	108.9	4.6
4	#5947.05	57.8 PK	68.2	-10.4	3.06 V	190	52.6	5.2
5	11490.00	54.3 PK	74.0	-19.7	1.66 V	209	39.4	14.9
6	11490.00	42.7 AV	54.0	-11.3	1.66 V	209	27.8	14.9
7	#17235.00	50.5 PK	68.2	-17.7	1.48 V	207	31.7	18.8

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.

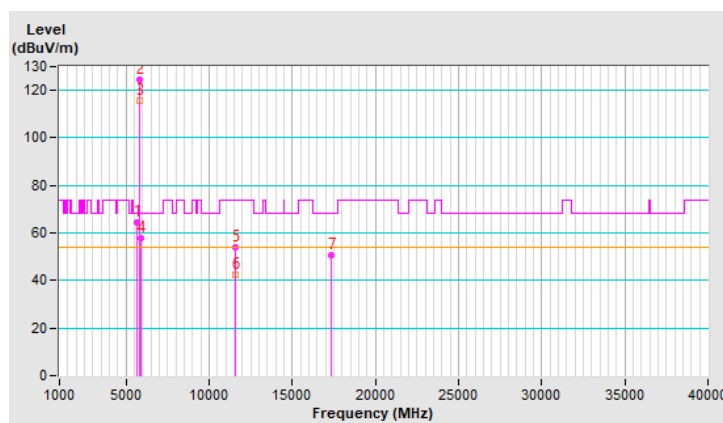


RF Mode	802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5646.71	64.4 PK	68.2	-3.8	1.01 H	145	59.7	4.7
2	*5785.00	124.3 PK			1.01 H	145	119.5	4.8
3	*5785.00	115.6 AV			1.01 H	145	110.8	4.8
4	#5926.62	57.9 PK	68.2	-10.3	1.01 H	145	52.8	5.1
5	11570.00	53.9 PK	74.0	-20.1	1.79 H	148	39.2	14.7
6	11570.00	42.6 AV	54.0	-11.4	1.79 H	148	27.9	14.7
7	#17355.00	50.6 PK	68.2	-17.6	1.59 H	172	31.8	18.8

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.

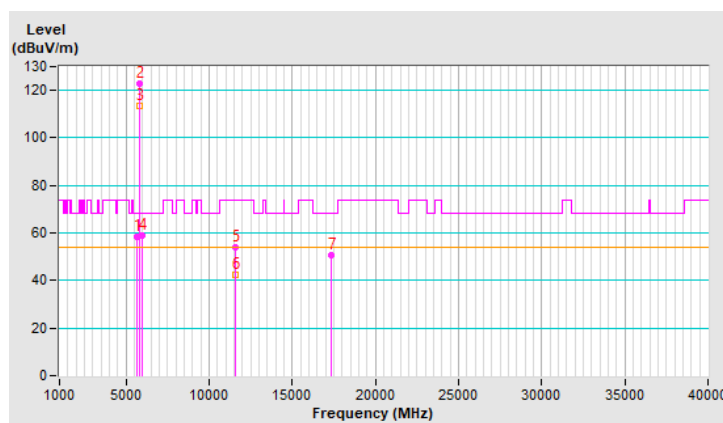


RF Mode	802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5619.72	58.2 PK	68.2	-10.0	3.20 V	188	53.7	4.5
2	*5785.00	122.9 PK			3.20 V	188	118.1	4.8
3	*5785.00	113.2 AV			3.20 V	188	108.4	4.8
4	#5937.98	59.1 PK	68.2	-9.1	3.20 V	188	54.0	5.1
5	11570.00	53.8 PK	74.0	-20.2	1.62 V	201	39.1	14.7
6	11570.00	42.3 AV	54.0	-11.7	1.62 V	201	27.6	14.7
7	#17355.00	50.7 PK	68.2	-17.5	1.53 V	199	31.9	18.8

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.

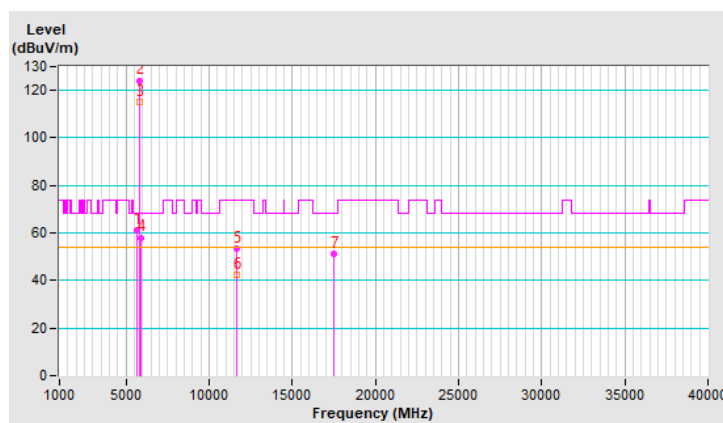


RF Mode	802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5643.86	61.1 PK	68.2	-7.1	1.00 H	142	56.4	4.7
2	*5825.00	124.2 PK			1.00 H	142	119.2	5.0
3	*5825.00	114.9 AV			1.00 H	142	109.9	5.0
4	#5926.88	58.1 PK	68.2	-10.1	1.00 H	142	53.0	5.1
5	11650.00	53.2 PK	74.0	-20.8	1.74 H	142	38.6	14.6
6	11650.00	42.2 AV	54.0	-11.8	1.74 H	142	27.6	14.6
7	#17475.00	51.0 PK	68.2	-17.2	1.55 H	173	31.5	19.5

Remarks:

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

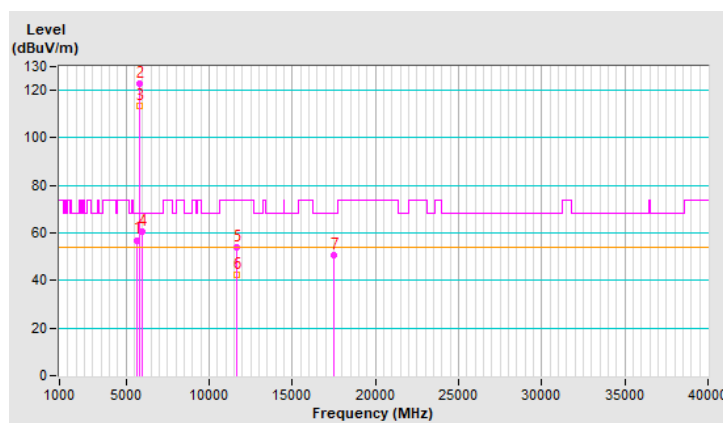


RF Mode	802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5629.10	57.0 PK	68.2	-11.2	2.84 V	188	52.4	4.6
2	*5825.00	122.7 PK			2.84 V	188	117.7	5.0
3	*5825.00	113.2 AV			2.84 V	188	108.2	5.0
4	#5945.32	60.6 PK	68.2	-7.6	2.84 V	188	55.4	5.2
5	11650.00	54.0 PK	74.0	-20.0	1.67 V	198	39.4	14.6
6	11650.00	42.4 AV	54.0	-11.6	1.67 V	198	27.8	14.6
7	#17475.00	50.8 PK	68.2	-17.4	1.52 V	200	31.3	19.5

Remarks:

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

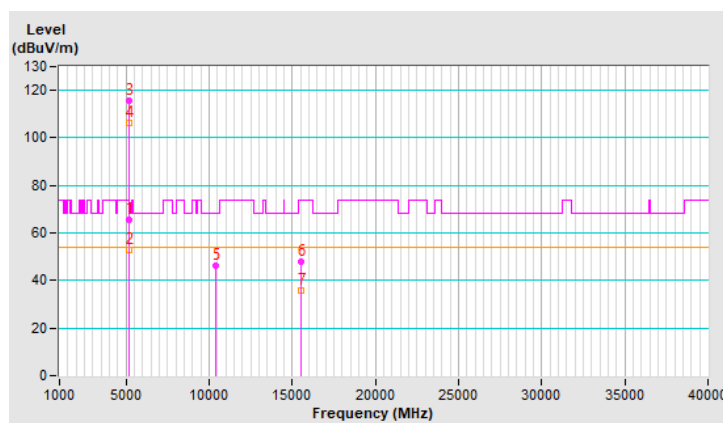


RF Mode	802.11ac (VHT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.6 PK	74.0	-8.4	1.07 H	150	61.1	4.5
2	5150.00	53.0 AV	54.0	-1.0	1.07 H	150	48.5	4.5
3	*5180.00	115.7 PK			1.07 H	150	111.2	4.5
4	*5180.00	106.1 AV			1.07 H	150	101.6	4.5
5	#10360.00	46.0 PK	68.2	-22.2	1.61 H	271	32.0	14.0
6	15540.00	48.1 PK	74.0	-25.9	1.67 H	182	34.1	14.0
7	15540.00	35.6 AV	54.0	-18.4	1.67 H	182	21.6	14.0

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.

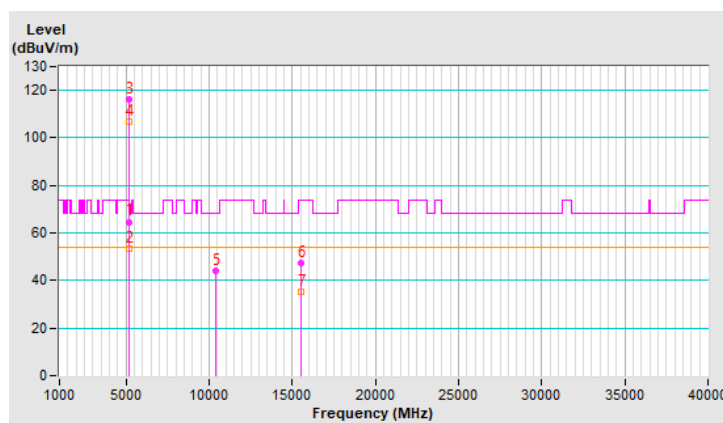


RF Mode	802.11ac (VHT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.7 PK	74.0	-9.3	2.99 V	197	60.2	4.5
2	5150.00	53.4 AV	54.0	-0.6	2.99 V	197	48.9	4.5
3	*5180.00	116.1 PK			2.99 V	197	111.6	4.5
4	*5180.00	106.6 AV			2.99 V	197	102.1	4.5
5	#10360.00	44.2 PK	68.2	-24.0	1.61 V	198	30.2	14.0
6	15540.00	47.2 PK	74.0	-26.8	1.47 V	215	33.2	14.0
7	15540.00	35.0 AV	54.0	-19.0	1.47 V	215	21.0	14.0

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.

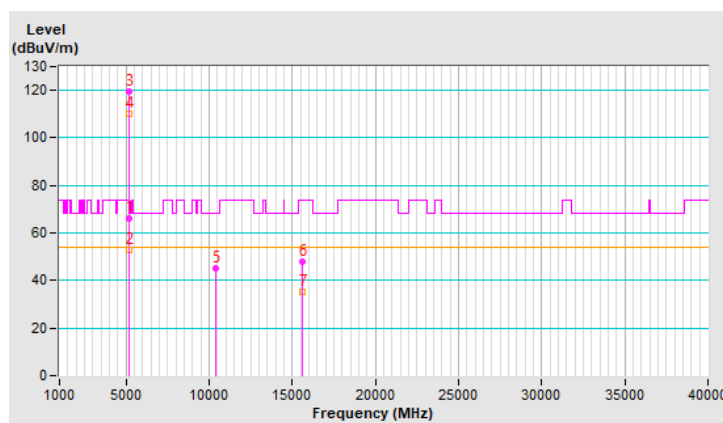


RF Mode	802.11ac (VHT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.9 PK	74.0	-8.1	1.11 H	157	61.4	4.5
2	5150.00	52.9 AV	54.0	-1.1	1.11 H	157	48.4	4.5
3	*5200.00	119.4 PK			1.11 H	157	115.1	4.3
4	*5200.00	110.3 AV			1.11 H	157	106.0	4.3
5	#10400.00	45.3 PK	68.2	-22.9	1.52 H	276	31.2	14.1
6	15600.00	47.8 PK	74.0	-26.2	1.71 H	164	33.5	14.3
7	15600.00	35.4 AV	54.0	-18.6	1.71 H	164	21.1	14.3

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.

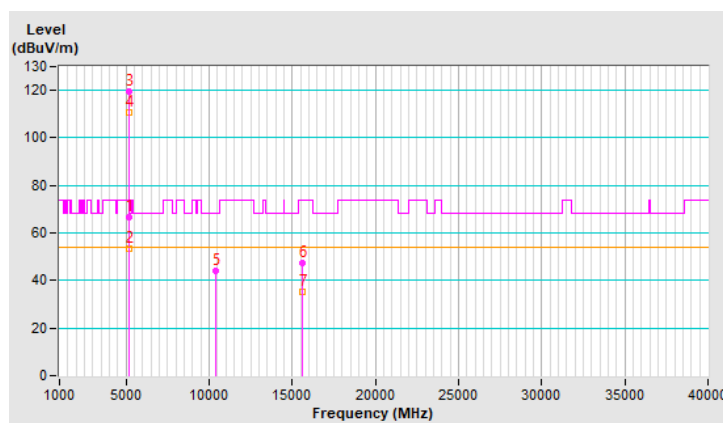


RF Mode	802.11ac (VHT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.6 PK	74.0	-7.4	3.34 V	190	62.1	4.5
2	5150.00	53.3 AV	54.0	-0.7	3.34 V	190	48.8	4.5
3	*5200.00	119.7 PK			3.34 V	190	115.4	4.3
4	*5200.00	110.6 AV			3.34 V	190	106.3	4.3
5	#10400.00	43.9 PK	68.2	-24.3	1.61 V	187	29.8	14.1
6	15600.00	47.4 PK	74.0	-26.6	1.46 V	194	33.1	14.3
7	15600.00	35.1 AV	54.0	-18.9	1.46 V	194	20.8	14.3

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.

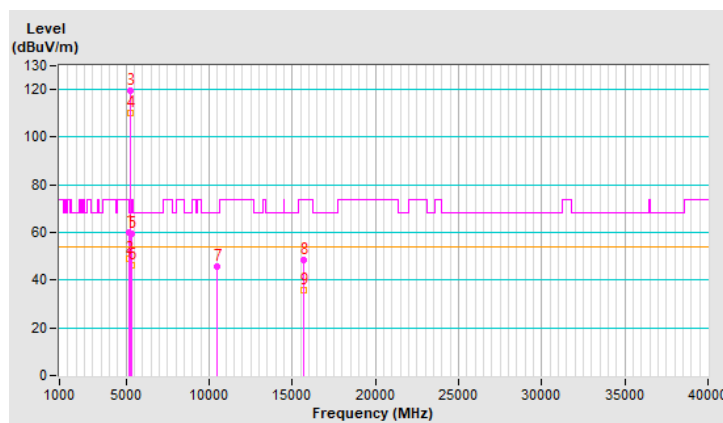


RF Mode	802.11ac (VHT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.0 PK	74.0	-14.0	1.08 H	152	55.5	4.5
2	5150.00	48.8 AV	54.0	-5.2	1.08 H	152	44.3	4.5
3	*5240.00	119.3 PK			1.08 H	152	115.3	4.0
4	*5240.00	110.1 AV			1.08 H	152	106.1	4.0
5	5350.00	59.4 PK	74.0	-14.6	1.08 H	152	55.2	4.2
6	5350.00	46.3 AV	54.0	-7.7	1.08 H	152	42.1	4.2
7	#10480.00	45.5 PK	68.2	-22.7	1.51 H	286	31.4	14.1
8	15720.00	48.4 PK	74.0	-25.6	1.69 H	163	34.0	14.4
9	15720.00	35.8 AV	54.0	-18.2	1.69 H	163	21.4	14.4

Remarks:

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

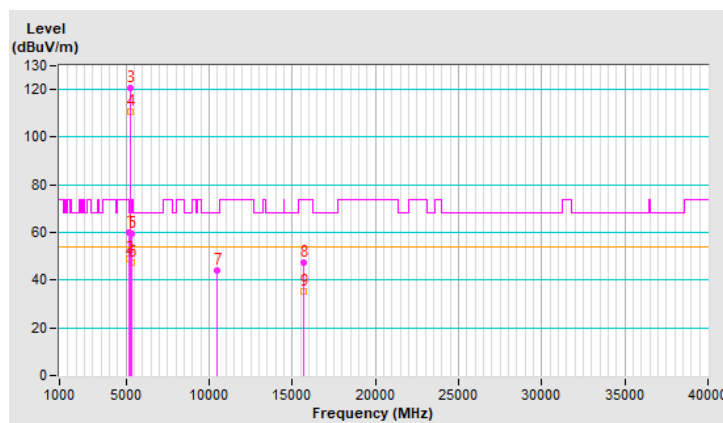


RF Mode	802.11ac (VHT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.2 PK	74.0	-13.8	3.44 V	202	55.7	4.5
2	5150.00	49.1 AV	54.0	-4.9	3.44 V	202	44.6	4.5
3	*5240.00	120.7 PK			3.44 V	202	116.7	4.0
4	*5240.00	110.8 AV			3.44 V	202	106.8	4.0
5	5350.00	59.5 PK	74.0	-14.5	3.44 V	202	55.3	4.2
6	5350.00	47.3 AV	54.0	-6.7	3.44 V	202	43.1	4.2
7	#10480.00	43.8 PK	68.2	-24.4	1.57 V	180	29.7	14.1
8	15720.00	47.1 PK	74.0	-26.9	1.44 V	192	32.7	14.4
9	15720.00	35.0 AV	54.0	-19.0	1.44 V	192	20.6	14.4

Remarks:

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

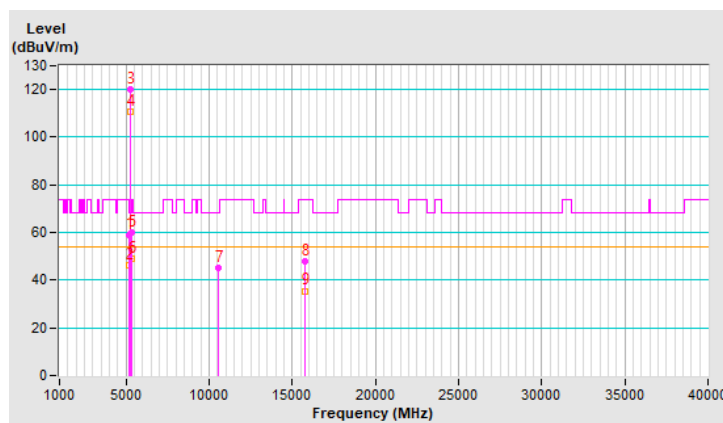


RF Mode	802.11ac (VHT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	59.1 PK	74.0	-14.9	1.11 H	157	54.6	4.5
2	5150.00	46.0 AV	54.0	-8.0	1.11 H	157	41.5	4.5
3	*5260.00	119.9 PK			1.11 H	157	115.9	4.0
4	*5260.00	110.5 AV			1.11 H	157	106.5	4.0
5	5350.00	60.0 PK	74.0	-14.0	1.11 H	157	55.8	4.2
6	5350.00	49.0 AV	54.0	-5.0	1.11 H	157	44.8	4.2
7	#10520.00	45.4 PK	68.2	-22.8	1.58 H	277	31.2	14.2
8	15780.00	48.0 PK	74.0	-26.0	1.71 H	167	33.5	14.5
9	15780.00	35.5 AV	54.0	-18.5	1.71 H	167	21.0	14.5

Remarks:

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

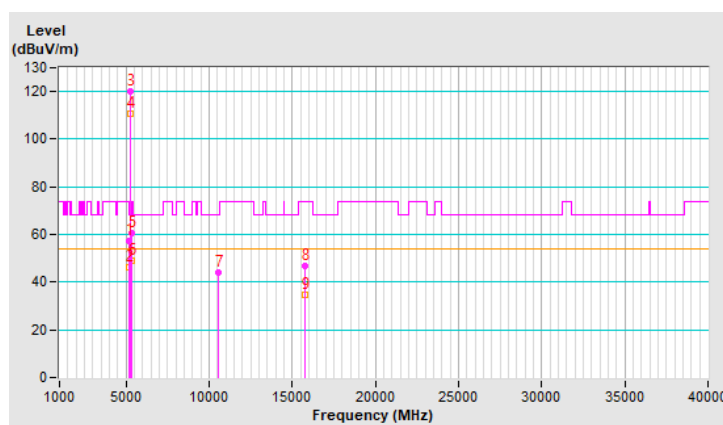


RF Mode	802.11ac (VHT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	3.08 V	209	52.6	4.5
2	5150.00	46.0 AV	54.0	-8.0	3.08 V	209	41.5	4.5
3	*5260.00	120.2 PK			3.08 V	209	116.2	4.0
4	*5260.00	110.6 AV			3.08 V	209	106.6	4.0
5	5350.00	60.5 PK	74.0	-13.5	3.08 V	209	56.3	4.2
6	5350.00	48.8 AV	54.0	-5.2	3.08 V	209	44.6	4.2
7	#10520.00	43.8 PK	68.2	-24.4	1.56 V	168	29.6	14.2
8	15780.00	46.8 PK	74.0	-27.2	1.40 V	187	32.3	14.5
9	15780.00	34.6 AV	54.0	-19.4	1.40 V	187	20.1	14.5

Remarks:

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

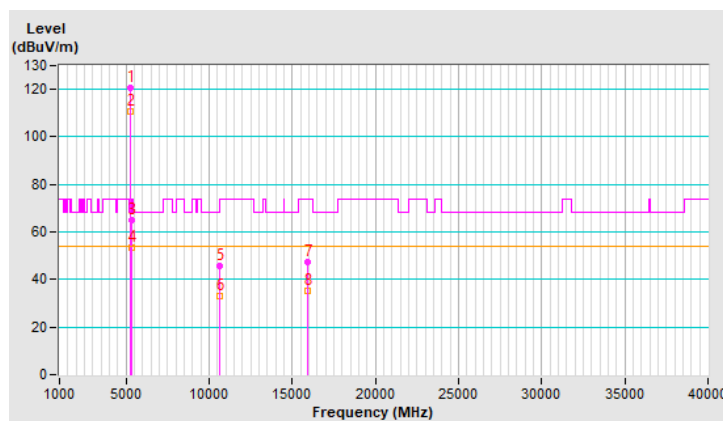


RF Mode	802.11ac (VHT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	120.5 PK			2.27 H	141	116.5	4.0
2	*5300.00	110.6 AV			2.27 H	141	106.6	4.0
3	5350.00	64.9 PK	74.0	-9.1	2.27 H	141	60.7	4.2
4	5350.00	53.2 AV	54.0	-0.8	2.27 H	141	49.0	4.2
5	10600.00	45.7 PK	74.0	-28.3	1.66 H	262	32.1	13.6
6	10600.00	33.2 AV	54.0	-20.8	1.66 H	262	19.6	13.6
7	15900.00	47.6 PK	74.0	-26.4	1.67 H	160	33.2	14.4
8	15900.00	35.2 AV	54.0	-18.8	1.67 H	160	20.8	14.4

Remarks:

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

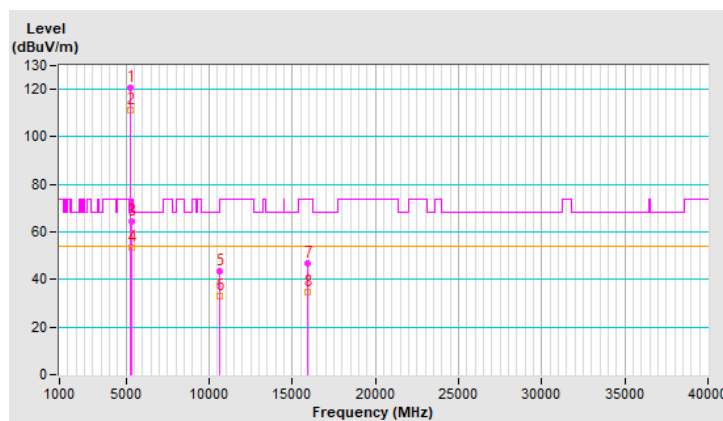


RF Mode	802.11ac (VHT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	120.8 PK			3.32 V	207	116.8	4.0
2	*5300.00	111.3 AV			3.32 V	207	107.3	4.0
3	5350.00	64.4 PK	74.0	-9.6	3.32 V	207	60.2	4.2
4	5350.00	53.3 AV	54.0	-0.7	3.32 V	207	49.1	4.2
5	10600.00	43.7 PK	74.0	-30.3	1.57 V	213	30.1	13.6
6	10600.00	32.8 AV	54.0	-21.2	1.57 V	213	19.2	13.6
7	15900.00	46.9 PK	74.0	-27.1	1.54 V	194	32.5	14.4
8	15900.00	34.6 AV	54.0	-19.4	1.54 V	194	20.2	14.4

Remarks:

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

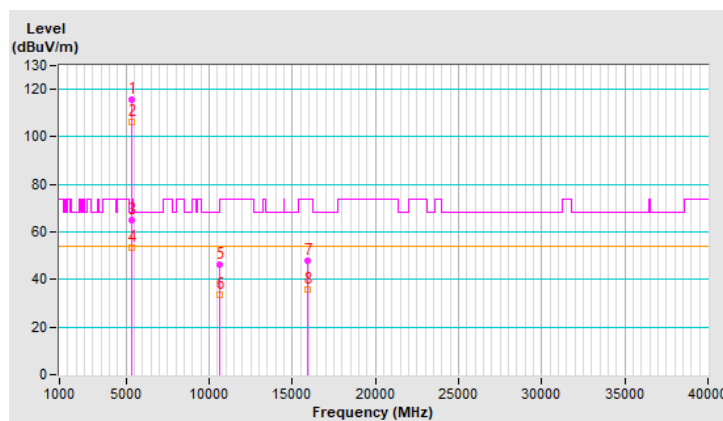


RF Mode	802.11ac (VHT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	115.8 PK			2.31 H	156	111.7	4.1
2	*5320.00	106.1 AV			2.31 H	156	102.0	4.1
3	5350.00	64.8 PK	74.0	-9.2	2.31 H	156	60.6	4.2
4	5350.00	53.3 AV	54.0	-0.7	2.31 H	156	49.1	4.2
5	10640.00	46.0 PK	74.0	-28.0	1.69 H	267	32.3	13.7
6	10640.00	33.6 AV	54.0	-20.4	1.69 H	267	19.9	13.7
7	15960.00	47.9 PK	74.0	-26.1	1.69 H	147	33.0	14.9
8	15960.00	35.6 AV	54.0	-18.4	1.69 H	147	20.7	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.

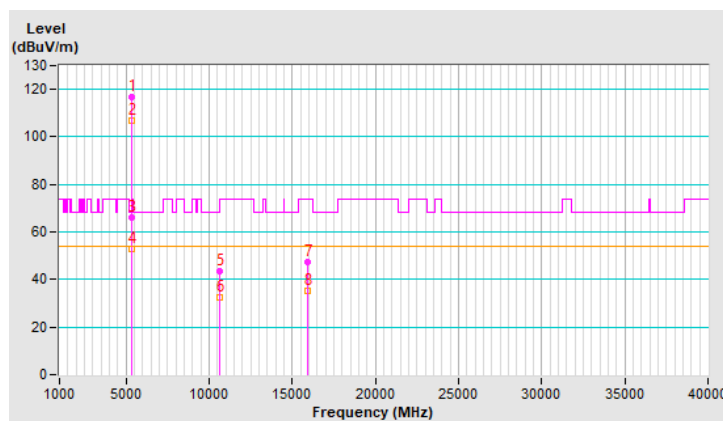


RF Mode	802.11ac (VHT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	116.7 PK			3.47 V	216	112.6	4.1
2	*5320.00	106.6 AV			3.47 V	216	102.5	4.1
3	5350.00	66.2 PK	74.0	-7.8	3.47 V	216	62.0	4.2
4	5350.00	53.1 AV	54.0	-0.9	3.47 V	216	48.9	4.2
5	10640.00	43.5 PK	74.0	-30.5	1.58 V	209	29.8	13.7
6	10640.00	32.5 AV	54.0	-21.5	1.58 V	209	18.8	13.7
7	15960.00	47.1 PK	74.0	-26.9	1.49 V	182	32.2	14.9
8	15960.00	35.0 AV	54.0	-19.0	1.49 V	182	20.1	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.

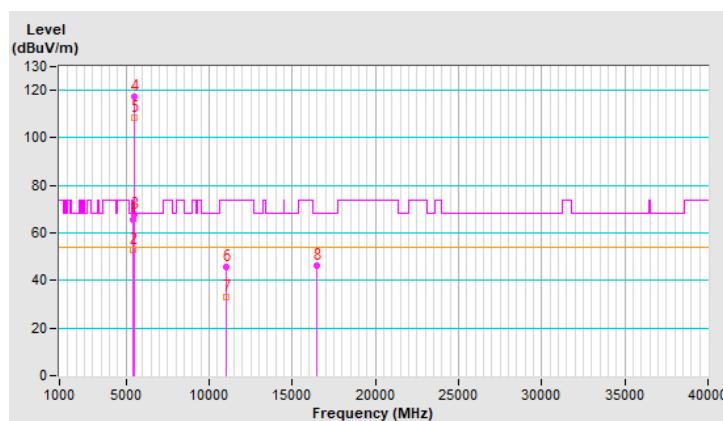


RF Mode	802.11ac (VHT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.3 PK	74.0	-8.7	1.07 H	146	60.9	4.4
2	5460.00	52.9 AV	54.0	-1.1	1.07 H	146	48.5	4.4
3	#5469.32	67.5 PK	68.2	-0.7	1.07 H	146	63.1	4.4
4	*5500.00	117.1 PK			1.07 H	146	112.6	4.5
5	*5500.00	108.6 AV			1.07 H	146	104.1	4.5
6	11000.00	45.6 PK	74.0	-28.4	1.64 H	248	31.0	14.6
7	11000.00	32.9 AV	54.0	-21.1	1.64 H	248	18.3	14.6
8	#16500.00	46.3 PK	68.2	-21.9	1.73 H	172	29.5	16.8

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.

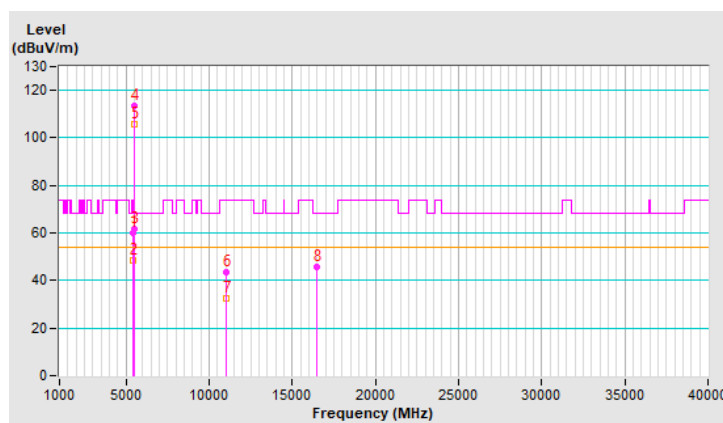


RF Mode	802.11ac (VHT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.2 PK	74.0	-13.8	1.23 V	184	55.8	4.4
2	5460.00	48.6 AV	54.0	-5.4	1.23 V	184	44.2	4.4
3	#5470.00	61.8 PK	68.2	-6.4	1.23 V	184	57.4	4.4
4	*5500.00	113.5 PK			1.23 V	184	109.0	4.5
5	*5500.00	105.8 AV			1.23 V	184	101.3	4.5
6	11000.00	43.7 PK	74.0	-30.3	1.57 V	225	29.1	14.6
7	11000.00	32.7 AV	54.0	-21.3	1.57 V	225	18.1	14.6
8	#16500.00	45.6 PK	68.2	-22.6	1.44 V	174	28.8	16.8

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.

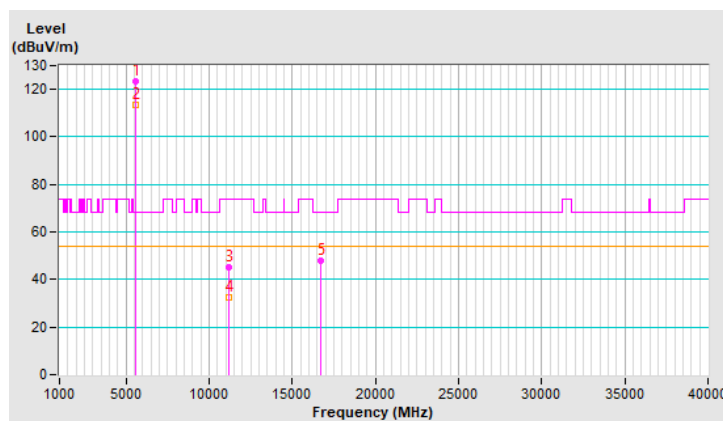


RF Mode	802.11ac (VHT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	123.2 PK			1.10 H	147	118.8	4.4
2	*5580.00	113.6 AV			1.10 H	147	109.2	4.4
3	11160.00	44.9 PK	74.0	-29.1	1.63 H	257	30.9	14.0
4	11160.00	32.4 AV	54.0	-21.6	1.63 H	257	18.4	14.0
5	#16740.00	47.7 PK	68.2	-20.5	1.69 H	174	29.4	18.3

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.

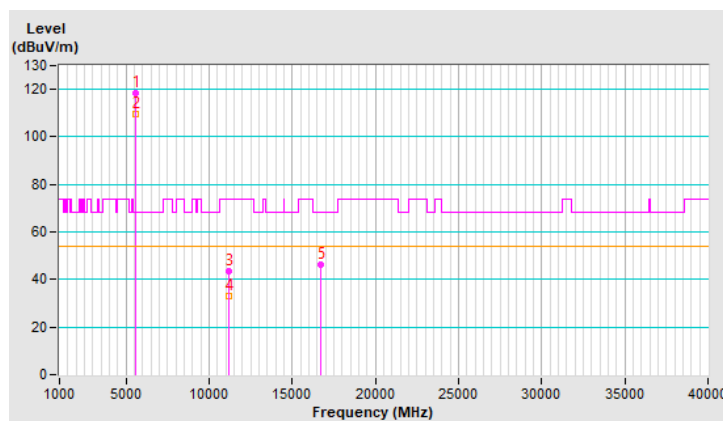


RF Mode	802.11ac (VHT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	118.6 PK			1.25 V	176	114.2	4.4
2	*5580.00	109.4 AV			1.25 V	176	105.0	4.4
3	11160.00	43.7 PK	74.0	-30.3	1.60 V	234	29.7	14.0
4	11160.00	32.8 AV	54.0	-21.2	1.60 V	234	18.8	14.0
5	#16740.00	46.1 PK	68.2	-22.1	1.47 V	169	27.8	18.3

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.

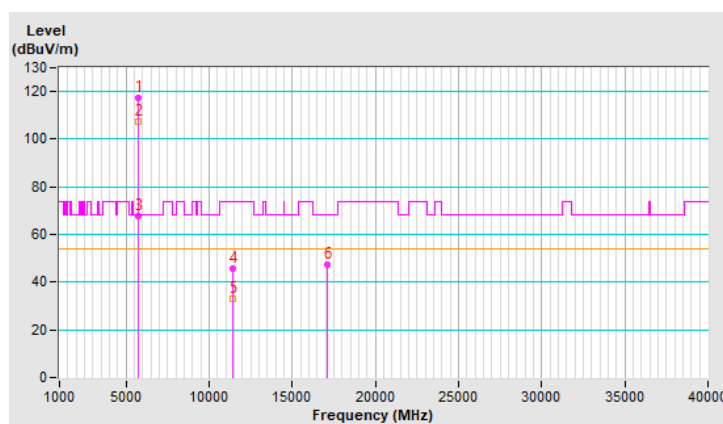


RF Mode	802.11ac (VHT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	117.3 PK			1.03 H	141	112.8	4.5
2	*5700.00	107.6 AV			1.03 H	141	103.1	4.5
3	#5725.00	67.7 PK	68.2	-0.5	1.03 H	141	63.1	4.6
4	11400.00	45.5 PK	74.0	-28.5	1.60 H	236	30.5	15.0
5	11400.00	32.8 AV	54.0	-21.2	1.60 H	236	17.8	15.0
6	#17100.00	47.3 PK	68.2	-20.9	1.76 H	162	28.0	19.3

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.

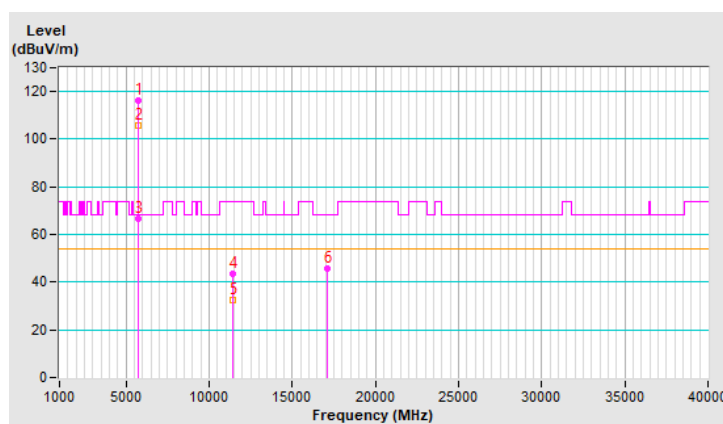


RF Mode	802.11ac (VHT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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			1.11 V	166	111.8	4.5
2	*5700.00	105.9 AV			1.11 V	166	101.4	4.5
3	#5725.00	66.5 PK	68.2	-1.7	1.11 V	166	61.9	4.6
4	11400.00	43.5 PK	74.0	-30.5	1.58 V	240	28.5	15.0
5	11400.00	32.7 AV	54.0	-21.3	1.58 V	240	17.7	15.0
6	#17100.00	45.5 PK	68.2	-22.7	1.46 V	163	26.2	19.3

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.

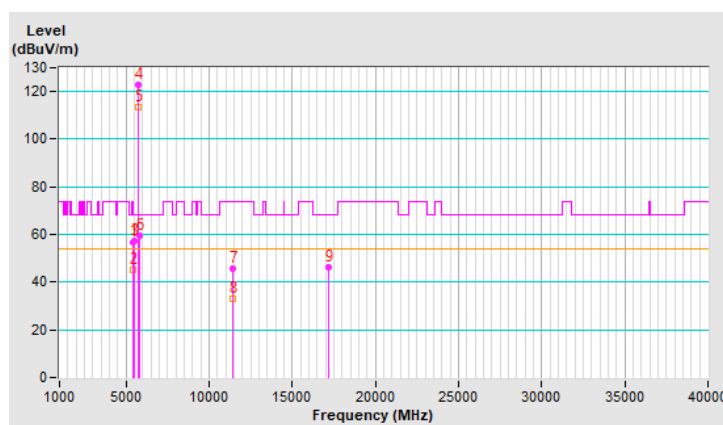


RF Mode	802.11ac (VHT20)	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	56.6 PK	74.0	-17.4	1.04 H	155	52.2	4.4
2	5460.00	45.1 AV	54.0	-8.9	1.04 H	155	40.7	4.4
3	#5470.00	57.3 PK	68.2	-10.9	1.04 H	155	52.9	4.4
4	*5720.00	122.8 PK			1.04 H	155	118.2	4.6
5	*5720.00	113.3 AV			1.04 H	155	108.7	4.6
6	#5850.00	59.7 PK	68.2	-8.5	1.04 H	155	54.6	5.1
7	11440.00	45.8 PK	74.0	-28.2	1.69 H	262	30.9	14.9
8	11440.00	33.0 AV	54.0	-21.0	1.69 H	262	18.1	14.9
9	#17160.00	46.4 PK	68.2	-21.8	1.71 H	170	27.3	19.1

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.

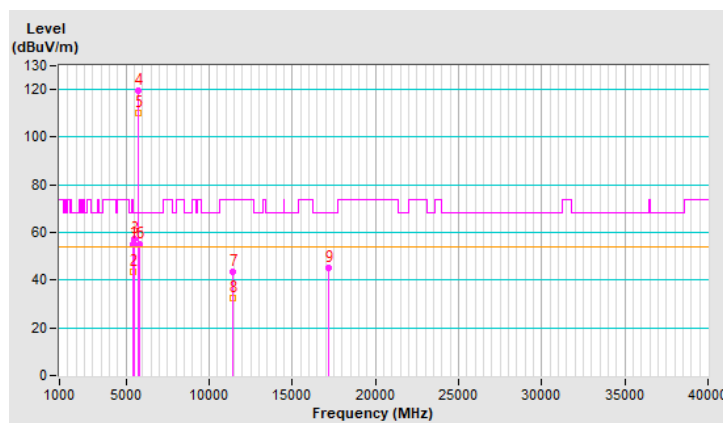


RF Mode	802.11ac (VHT20)	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	55.3 PK	74.0	-18.7	1.24 V	178	50.9	4.4
2	5460.00	43.6 AV	54.0	-10.4	1.24 V	178	39.2	4.4
3	#5470.00	57.2 PK	68.2	-11.0	1.24 V	178	52.8	4.4
4	*5720.00	119.3 PK			1.24 V	178	114.7	4.6
5	*5720.00	109.9 AV			1.24 V	178	105.3	4.6
6	#5850.00	55.3 PK	68.2	-12.9	1.24 V	178	50.2	5.1
7	11440.00	43.3 PK	74.0	-30.7	1.57 V	237	28.4	14.9
8	11440.00	32.5 AV	54.0	-21.5	1.57 V	237	17.6	14.9
9	#17160.00	45.1 PK	68.2	-23.1	1.44 V	187	26.0	19.1

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.

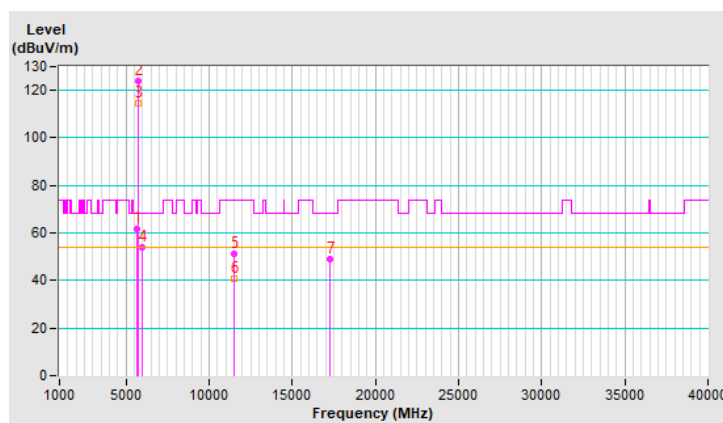


RF Mode	802.11ac (VHT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5647.15	61.8 PK	68.2	-6.4	1.03 H	142	57.1	4.7
2	*5745.00	123.9 PK			1.03 H	142	119.3	4.6
3	*5745.00	114.4 AV			1.03 H	142	109.8	4.6
4	#5936.63	54.1 PK	68.2	-14.1	1.03 H	142	49.0	5.1
5	11490.00	51.4 PK	74.0	-22.6	1.67 H	130	36.5	14.9
6	11490.00	40.7 AV	54.0	-13.3	1.67 H	130	25.8	14.9
7	#17235.00	49.2 PK	68.2	-19.0	1.58 H	157	30.4	18.8

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.

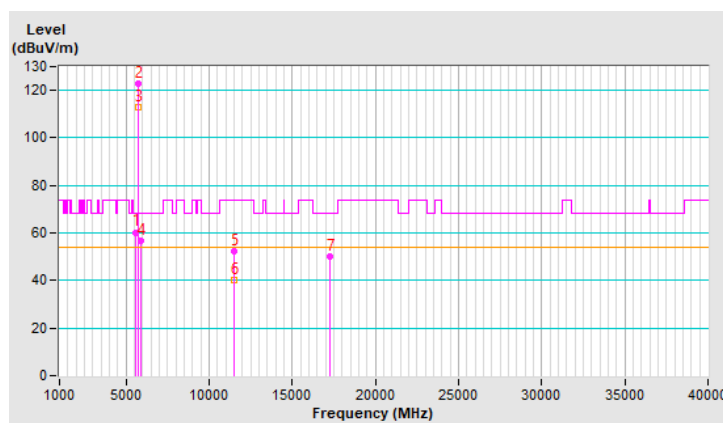


RF Mode	802.11ac (VHT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5614.34	60.3 PK	68.2	-7.9	2.92 V	188	55.8	4.5
2	*5745.00	122.7 PK			2.92 V	188	118.1	4.6
3	*5745.00	112.9 AV			2.92 V	188	108.3	4.6
4	#5928.31	56.8 PK	68.2	-11.4	2.92 V	188	51.7	5.1
5	11490.00	52.3 PK	74.0	-21.7	1.70 V	214	37.4	14.9
6	11490.00	40.1 AV	54.0	-13.9	1.70 V	214	25.2	14.9
7	#17235.00	50.2 PK	68.2	-18.0	1.61 V	202	31.4	18.8

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.

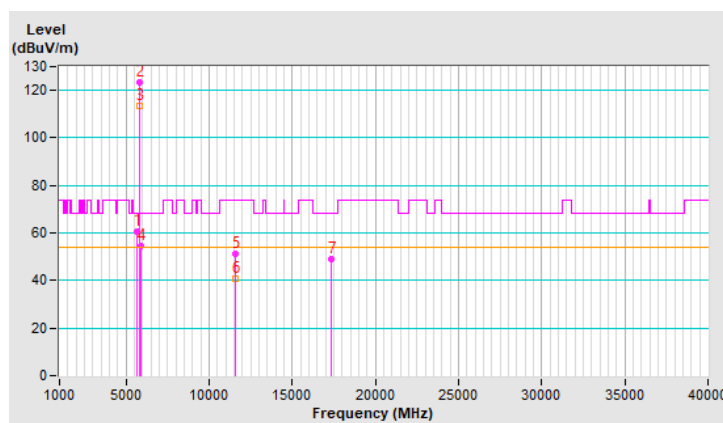


RF Mode	802.11ac (VHT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5642.65	60.6 PK	68.2	-7.6	1.04 H	141	55.9	4.7
2	*5785.00	123.6 PK			1.04 H	141	118.8	4.8
3	*5785.00	113.7 AV			1.04 H	141	108.9	4.8
4	#5926.32	54.5 PK	68.2	-13.7	1.04 H	141	49.4	5.1
5	11570.00	51.3 PK	74.0	-22.7	1.64 H	118	36.6	14.7
6	11570.00	40.8 AV	54.0	-13.2	1.64 H	118	26.1	14.7
7	#17355.00	48.8 PK	68.2	-19.4	1.53 H	164	30.0	18.8

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.

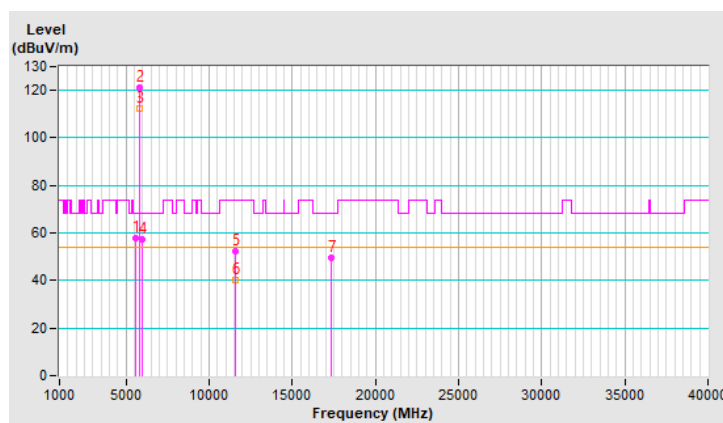


RF Mode	802.11ac (VHT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5615.88	57.7 PK	68.2	-10.5	2.97 V	177	53.2	4.5
2	*5785.00	121.4 PK			2.97 V	177	116.6	4.8
3	*5785.00	112.5 AV			2.97 V	177	107.7	4.8
4	#5960.59	57.5 PK	68.2	-10.7	2.97 V	177	52.4	5.1
5	11570.00	52.3 PK	74.0	-21.7	1.71 V	213	37.6	14.7
6	11570.00	40.1 AV	54.0	-13.9	1.71 V	213	25.4	14.7
7	#17355.00	49.8 PK	68.2	-18.4	1.58 V	191	31.0	18.8

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.

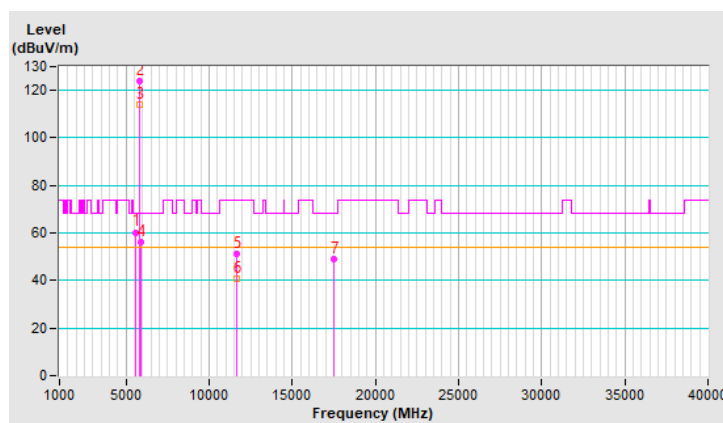


RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5617.81	60.3 PK	68.2	-7.9	1.02 H	145	55.8	4.5
2	*5825.00	123.7 PK			1.02 H	145	118.7	5.0
3	*5825.00	113.9 AV			1.02 H	145	108.9	5.0
4	#5929.68	56.4 PK	68.2	-11.8	1.02 H	145	51.3	5.1
5	11650.00	51.0 PK	74.0	-23.0	1.72 H	129	36.4	14.6
6	11650.00	40.5 AV	54.0	-13.5	1.72 H	129	25.9	14.6
7	#17475.00	49.2 PK	68.2	-19.0	1.55 H	163	29.7	19.5

Remarks:

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

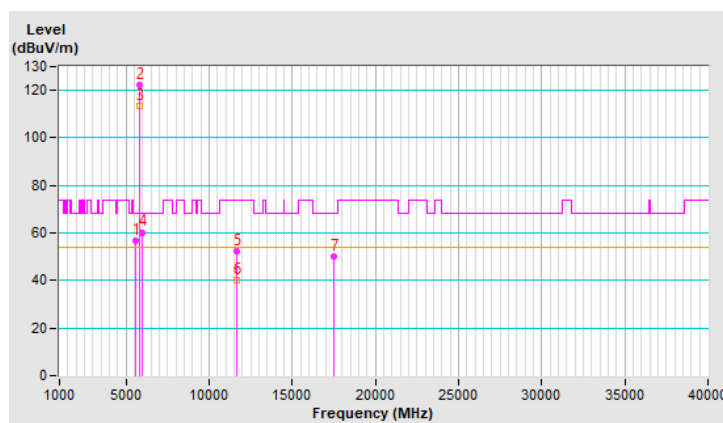


RF Mode	802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5605.95	56.7 PK	68.2	-11.5	3.00 V	183	52.2	4.5
2	*5825.00	122.5 PK			3.00 V	183	117.5	5.0
3	*5825.00	113.3 AV			3.00 V	183	108.3	5.0
4	#5939.31	60.3 PK	68.2	-7.9	3.00 V	183	55.2	5.1
5	11650.00	52.3 PK	74.0	-21.7	1.67 V	225	37.7	14.6
6	11650.00	40.1 AV	54.0	-13.9	1.67 V	225	25.5	14.6
7	#17475.00	50.0 PK	68.2	-18.2	1.64 V	178	30.5	19.5

Remarks:

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

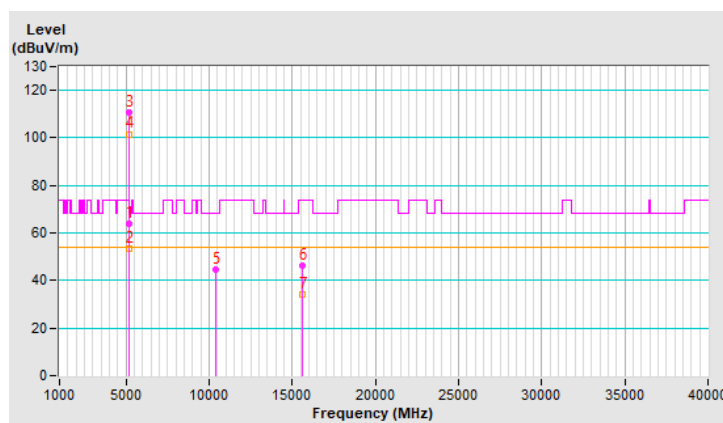


RF Mode	802.11ac (VHT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	2.19 H	162	59.2	4.5
2	5150.00	53.3 AV	54.0	-0.7	2.19 H	162	48.8	4.5
3	*5190.00	110.9 PK			2.19 H	162	106.5	4.4
4	*5190.00	101.6 AV			2.19 H	162	97.2	4.4
5	#10380.00	44.5 PK	68.2	-23.7	1.65 H	249	30.4	14.1
6	15570.00	46.1 PK	74.0	-27.9	1.72 H	192	32.0	14.1
7	15570.00	34.3 AV	54.0	-19.7	1.72 H	192	20.2	14.1

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.

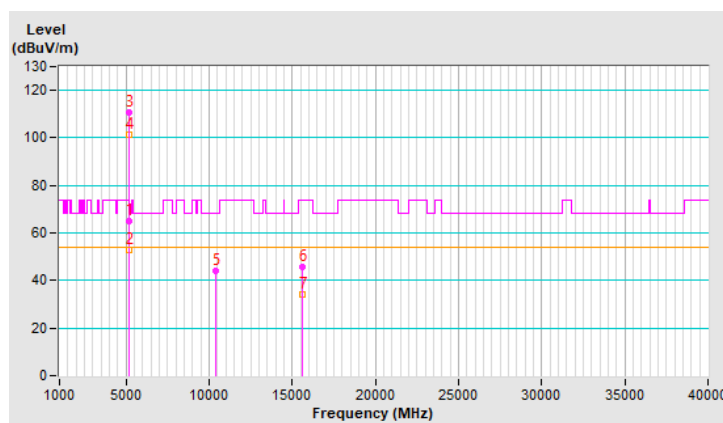


RF Mode	802.11ac (VHT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	65.2 PK	74.0	-8.8	3.49 V	196	60.7	4.5
2	5150.00	53.0 AV	54.0	-1.0	3.49 V	196	48.5	4.5
3	*5190.00	110.9 PK			3.49 V	196	106.5	4.4
4	*5190.00	101.5 AV			3.49 V	196	97.1	4.4
5	#10380.00	44.1 PK	68.2	-24.1	1.68 V	199	30.0	14.1
6	15570.00	45.8 PK	74.0	-28.2	1.49 V	188	31.7	14.1
7	15570.00	34.0 AV	54.0	-20.0	1.49 V	188	19.9	14.1

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.

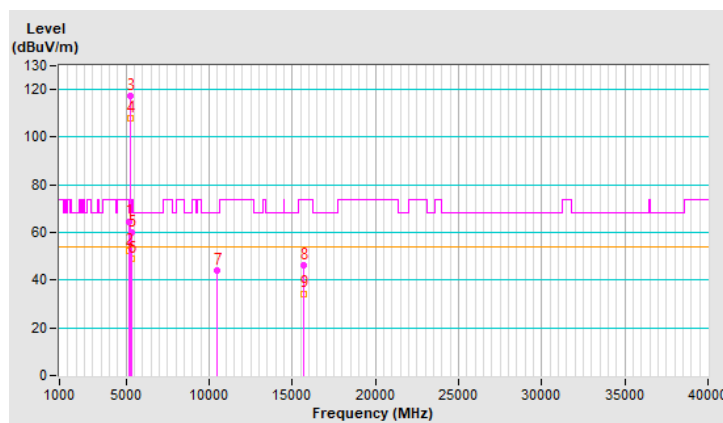


RF Mode	802.11ac (VHT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.3 PK	74.0	-9.7	2.16 H	154	59.8	4.5
2	5150.00	52.4 AV	54.0	-1.6	2.16 H	154	47.9	4.5
3	*5230.00	117.2 PK			2.16 H	154	113.0	4.2
4	*5230.00	107.8 AV			2.16 H	154	103.6	4.2
5	5350.00	60.2 PK	74.0	-13.8	2.16 H	154	56.0	4.2
6	5350.00	48.8 AV	54.0	-5.2	2.16 H	154	44.6	4.2
7	#10460.00	43.9 PK	68.2	-24.3	1.65 H	243	29.7	14.2
8	15690.00	46.2 PK	74.0	-27.8	1.78 H	186	31.7	14.5
9	15690.00	34.4 AV	54.0	-19.6	1.78 H	186	19.9	14.5

Remarks:

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

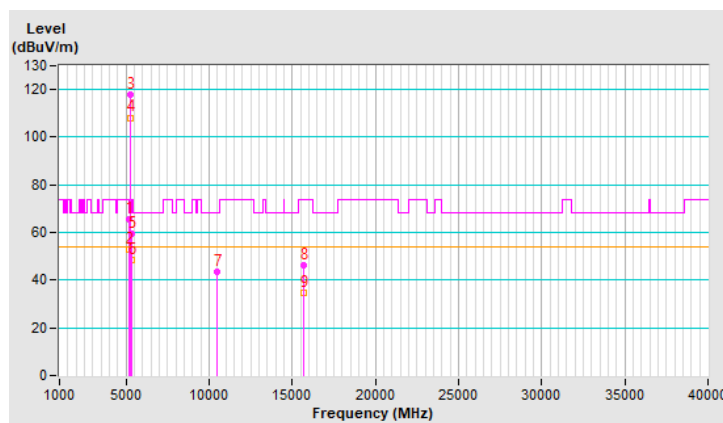


RF Mode	802.11ac (VHT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	65.5 PK	74.0	-8.5	3.24 V	203	61.0	4.5
2	5150.00	53.1 AV	54.0	-0.9	3.24 V	203	48.6	4.5
3	*5230.00	117.9 PK			3.24 V	203	113.7	4.2
4	*5230.00	108.2 AV			3.24 V	203	104.0	4.2
5	5350.00	59.6 PK	74.0	-14.4	3.24 V	203	55.4	4.2
6	5350.00	48.5 AV	54.0	-5.5	3.24 V	203	44.3	4.2
7	#10460.00	43.5 PK	68.2	-24.7	1.66 V	206	29.3	14.2
8	15690.00	46.4 PK	74.0	-27.6	1.42 V	206	31.9	14.5
9	15690.00	34.5 AV	54.0	-19.5	1.42 V	206	20.0	14.5

Remarks:

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

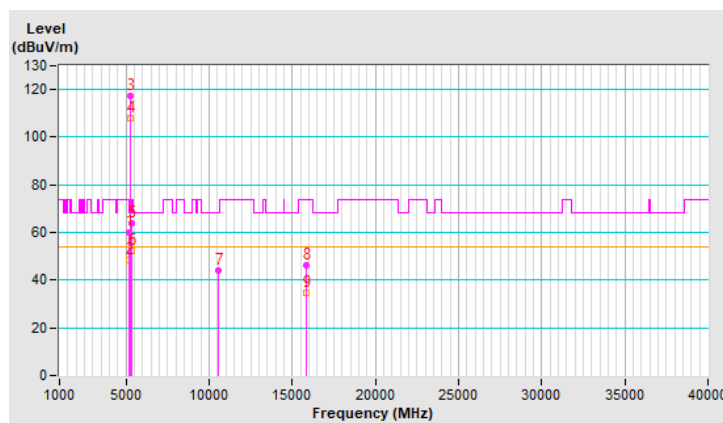


RF Mode	802.11ac (VHT40)	Channel	CH 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.1 PK	74.0	-13.9	2.11 H	156	55.6	4.5
2	5150.00	48.7 AV	54.0	-5.3	2.11 H	156	44.2	4.5
3	*5270.00	117.4 PK			2.11 H	156	113.4	4.0
4	*5270.00	108.1 AV			2.11 H	156	104.1	4.0
5	5350.00	63.8 PK	74.0	-10.2	2.11 H	156	59.6	4.2
6	5350.00	52.1 AV	54.0	-1.9	2.11 H	156	47.9	4.2
7	#10540.00	44.2 PK	68.2	-24.0	1.64 H	245	30.3	13.9
8	15810.00	46.2 PK	74.0	-27.8	1.74 H	177	31.8	14.4
9	15810.00	34.6 AV	54.0	-19.4	1.74 H	177	20.2	14.4

Remarks:

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

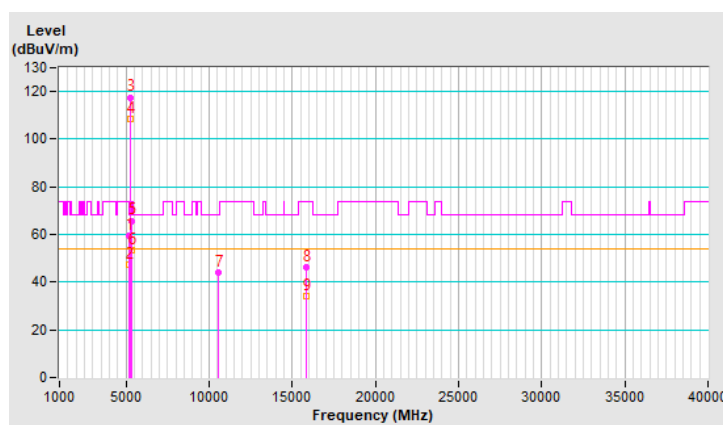


RF Mode	802.11ac (VHT40)	Channel	CH 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.7 PK	74.0	-14.3	3.19 V	204	55.2	4.5
2	5150.00	47.3 AV	54.0	-6.7	3.19 V	204	42.8	4.5
3	*5270.00	117.6 PK			3.19 V	204	113.6	4.0
4	*5270.00	108.4 AV			3.19 V	204	104.4	4.0
5	5350.00	65.8 PK	74.0	-8.2	3.19 V	204	61.6	4.2
6	5350.00	53.2 AV	54.0	-0.8	3.19 V	204	49.0	4.2
7	#10540.00	43.9 PK	68.2	-24.3	1.63 V	195	30.0	13.9
8	15810.00	46.1 PK	74.0	-27.9	1.44 V	194	31.7	14.4
9	15810.00	34.2 AV	54.0	-19.8	1.44 V	194	19.8	14.4

Remarks:

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

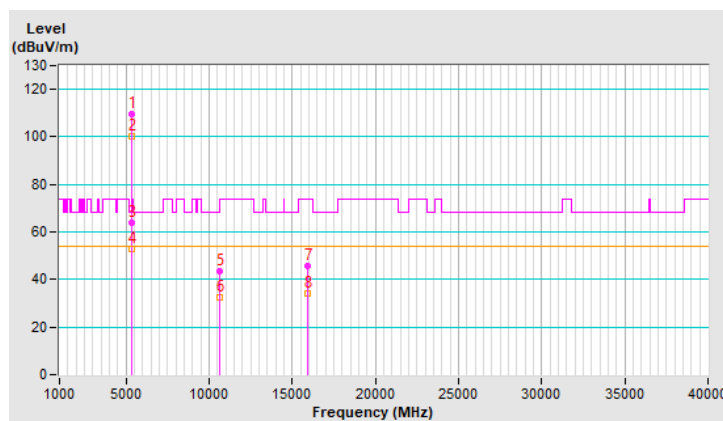


RF Mode	802.11ac (VHT40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	109.6 PK			2.38 H	159	105.6	4.0
2	*5310.00	100.3 AV			2.38 H	159	96.3	4.0
3	5350.00	63.8 PK	74.0	-10.2	2.38 H	159	59.6	4.2
4	5350.00	53.1 AV	54.0	-0.9	2.38 H	159	48.9	4.2
5	10620.00	43.7 PK	74.0	-30.3	1.60 H	259	30.0	13.7
6	10620.00	32.4 AV	54.0	-21.6	1.60 H	259	18.7	13.7
7	15930.00	45.9 PK	74.0	-28.1	1.69 H	175	31.3	14.6
8	15930.00	34.1 AV	54.0	-19.9	1.69 H	175	19.5	14.6

Remarks:

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

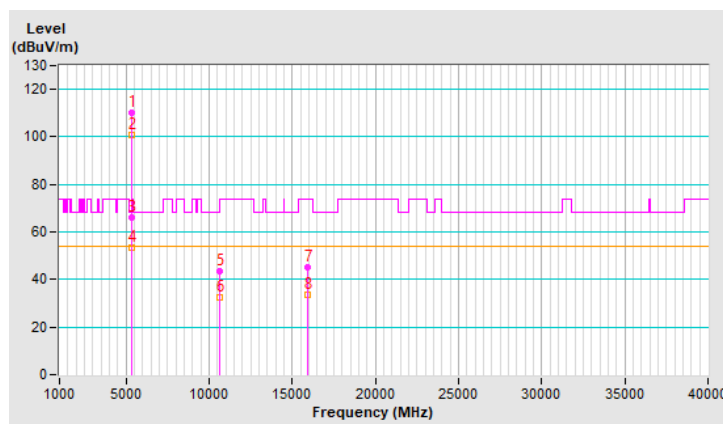


RF Mode	802.11ac (VHT40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	110.1 PK			2.05 V	108	106.1	4.0
2	*5310.00	101.0 AV			2.05 V	108	97.0	4.0
3	5350.00	66.2 PK	74.0	-7.8	2.05 V	108	62.0	4.2
4	5350.00	53.4 AV	54.0	-0.6	2.05 V	108	49.2	4.2
5	10620.00	43.7 PK	74.0	-30.3	1.61 V	209	30.0	13.7
6	10620.00	32.3 AV	54.0	-21.7	1.61 V	209	18.6	13.7
7	15930.00	45.3 PK	74.0	-28.7	1.49 V	194	30.7	14.6
8	15930.00	33.7 AV	54.0	-20.3	1.49 V	194	19.1	14.6

Remarks:

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

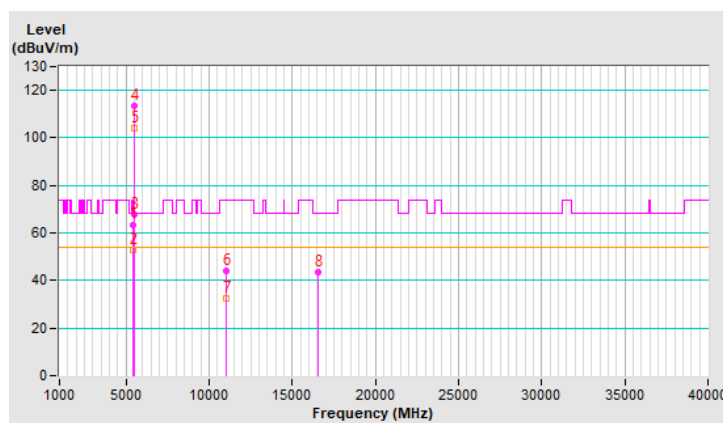


RF Mode	802.11ac (VHT40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	63.1 PK	74.0	-10.9	1.13 H	146	58.7	4.4
2	5460.00	53.1 AV	54.0	-0.9	1.13 H	146	48.7	4.4
3	#5470.00	67.5 PK	68.2	-0.7	1.13 H	146	63.1	4.4
4	*5510.00	113.5 PK			1.13 H	146	109.0	4.5
5	*5510.00	103.9 AV			1.13 H	146	99.4	4.5
6	11020.00	44.1 PK	74.0	-29.9	1.71 H	129	29.7	14.4
7	11020.00	32.7 AV	54.0	-21.3	1.71 H	129	18.3	14.4
8	#16530.00	43.6 PK	68.2	-24.6	1.63 H	190	26.7	16.9

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.

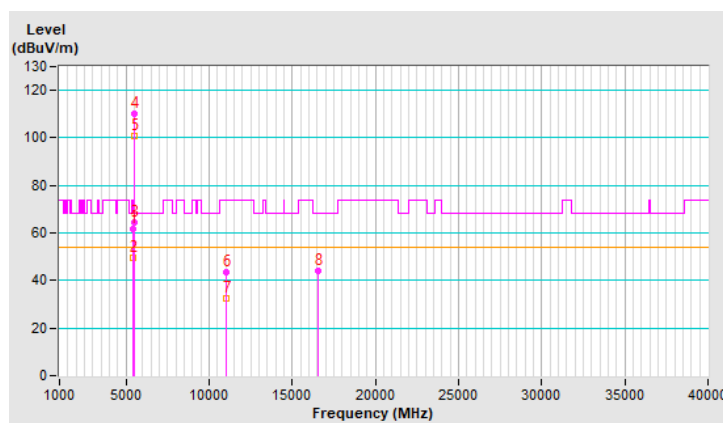


RF Mode	802.11ac (VHT40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.8 PK	74.0	-12.2	1.22 V	187	57.4	4.4
2	5460.00	49.8 AV	54.0	-4.2	1.22 V	187	45.4	4.4
3	#5470.00	64.2 PK	68.2	-4.0	1.22 V	187	59.8	4.4
4	*5510.00	110.1 PK			1.22 V	187	105.6	4.5
5	*5510.00	100.8 AV			1.22 V	187	96.3	4.5
6	11020.00	43.7 PK	74.0	-30.3	1.81 V	189	29.3	14.4
7	11020.00	32.5 AV	54.0	-21.5	1.81 V	189	18.1	14.4
8	#16530.00	44.3 PK	68.2	-23.9	1.56 V	187	27.4	16.9

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.

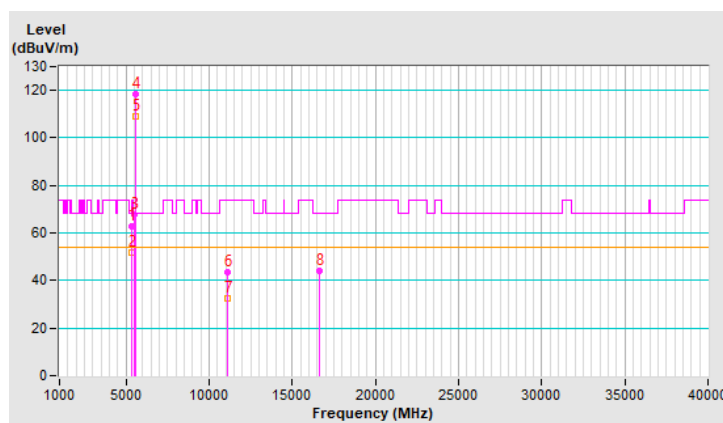


RF Mode	802.11ac (VHT40)	Channel	CH 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	5350.00	62.8 PK	74.0	-11.2	1.02 H	141	58.6	4.2
2	5350.00	51.7 AV	54.0	-2.3	1.02 H	141	47.5	4.2
3	#5470.00	67.5 PK	68.2	-0.7	1.02 H	141	63.1	4.4
4	*5550.00	118.5 PK			1.02 H	141	114.1	4.4
5	*5550.00	109.1 AV			1.02 H	141	104.7	4.4
6	11100.00	43.6 PK	74.0	-30.4	1.71 H	128	29.7	13.9
7	11100.00	32.3 AV	54.0	-21.7	1.71 H	128	18.4	13.9
8	#16650.00	44.0 PK	68.2	-24.2	1.63 H	174	26.4	17.6

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.

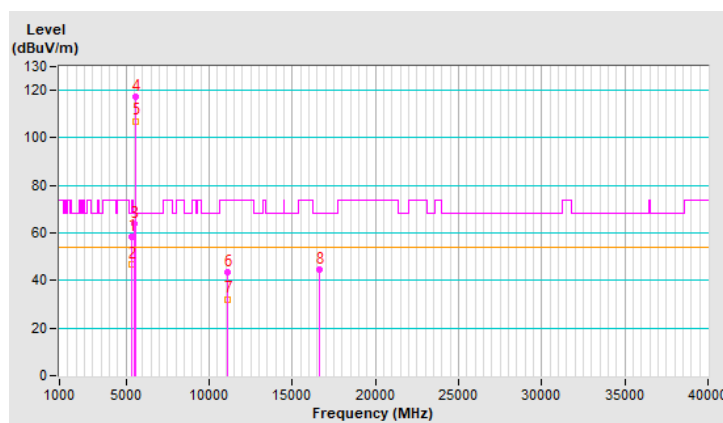


RF Mode	802.11ac (VHT40)	Channel	CH 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	5350.00	58.3 PK	74.0	-15.7	1.20 V	190	54.1	4.2
2	5350.00	46.7 AV	54.0	-7.3	1.20 V	190	42.5	4.2
3	#5470.00	63.9 PK	68.2	-4.3	1.20 V	190	59.5	4.4
4	*5550.00	117.4 PK			1.20 V	190	113.0	4.4
5	*5550.00	107.1 AV			1.20 V	190	102.7	4.4
6	11100.00	43.7 PK	74.0	-30.3	1.70 V	195	29.8	13.9
7	11100.00	32.2 AV	54.0	-21.8	1.70 V	195	18.3	13.9
8	#16650.00	44.6 PK	68.2	-23.6	1.64 V	186	27.0	17.6

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.

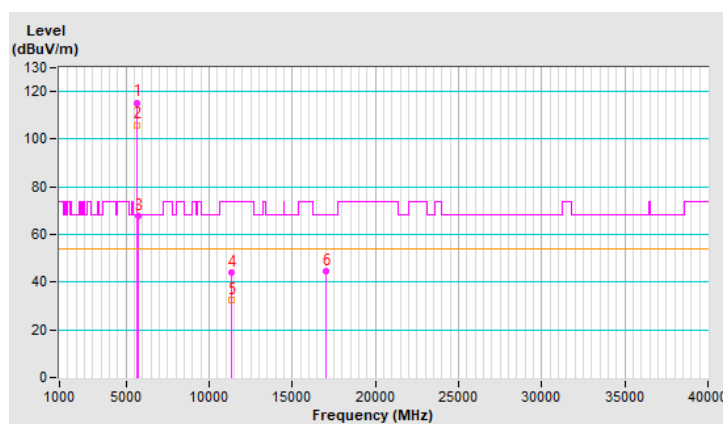


RF Mode	802.11ac (VHT40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	115.4 PK			1.02 H	142	110.9	4.5
2	*5670.00	106.0 AV			1.02 H	142	101.5	4.5
3	#5725.00	67.6 PK	68.2	-0.6	1.02 H	142	63.0	4.6
4	11340.00	43.9 PK	74.0	-30.1	1.77 H	116	29.1	14.8
5	11340.00	32.6 AV	54.0	-21.4	1.77 H	116	17.8	14.8
6	#17010.00	44.4 PK	68.2	-23.8	1.62 H	183	25.3	19.1

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.

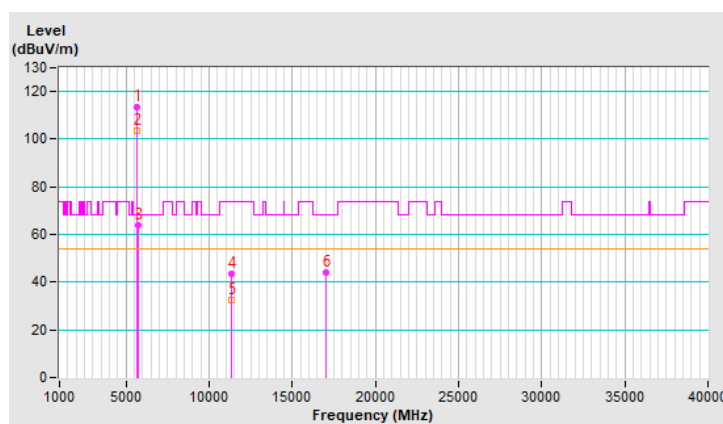


RF Mode	802.11ac (VHT40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	113.6 PK			1.22 V	180	109.1	4.5
2	*5670.00	103.7 AV			1.22 V	180	99.2	4.5
3	#5725.00	63.9 PK	68.2	-4.3	1.22 V	180	59.3	4.6
4	11340.00	43.6 PK	74.0	-30.4	1.77 V	186	28.8	14.8
5	11340.00	32.5 AV	54.0	-21.5	1.77 V	186	17.7	14.8
6	#17010.00	44.3 PK	68.2	-23.9	1.58 V	205	25.2	19.1

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.

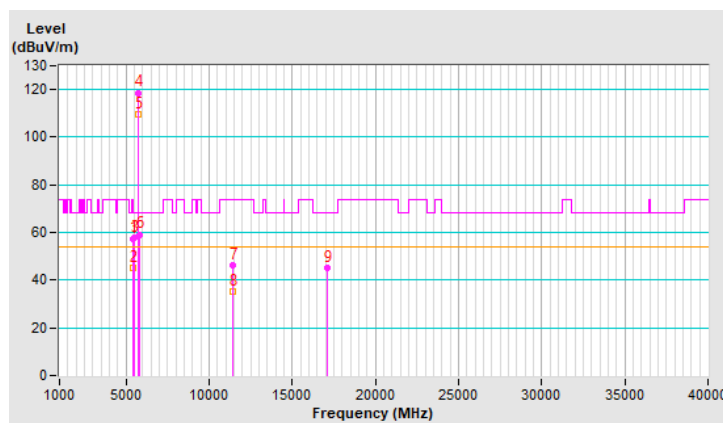


RF Mode	802.11ac (VHT40)	Channel	CH 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	1.02 H	138	52.7	4.4
2	5460.00	45.3 AV	54.0	-8.7	1.02 H	138	40.9	4.4
3	#5470.00	57.7 PK	68.2	-10.5	1.02 H	138	53.3	4.4
4	*5710.00	118.7 PK			1.02 H	138	114.2	4.5
5	*5710.00	109.5 AV			1.02 H	138	105.0	4.5
6	#5850.00	59.2 PK	68.2	-9.0	1.02 H	138	54.1	5.1
7	11420.00	46.0 PK	74.0	-28.0	1.63 H	118	31.1	14.9
8	11420.00	35.0 AV	54.0	-19.0	1.63 H	118	20.1	14.9
9	#17130.00	45.2 PK	68.2	-23.0	1.56 H	178	26.0	19.2

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.

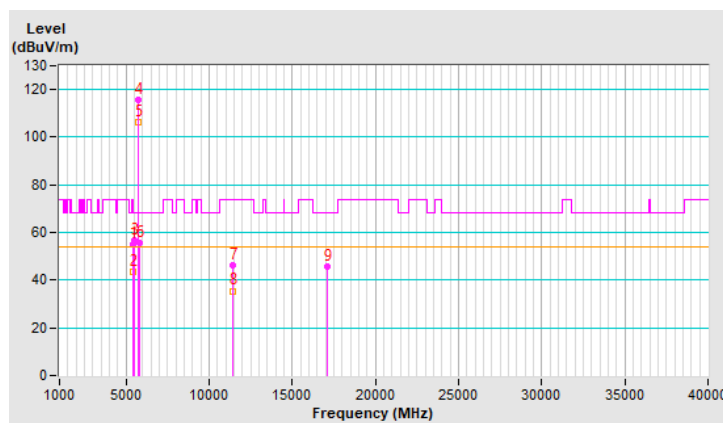


RF Mode	802.11ac (VHT40)	Channel	CH 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	55.1 PK	74.0	-18.9	1.21 V	185	50.7	4.4
2	5460.00	43.4 AV	54.0	-10.6	1.21 V	185	39.0	4.4
3	#5470.00	56.6 PK	68.2	-11.6	1.21 V	185	52.2	4.4
4	*5710.00	115.6 PK			1.21 V	185	111.1	4.5
5	*5710.00	106.4 AV			1.21 V	185	101.9	4.5
6	#5850.00	55.7 PK	68.2	-12.5	1.21 V	185	50.6	5.1
7	11420.00	46.4 PK	74.0	-27.6	1.73 V	200	31.5	14.9
8	11420.00	35.5 AV	54.0	-18.5	1.73 V	200	20.6	14.9
9	#17130.00	45.5 PK	68.2	-22.7	1.50 V	210	26.3	19.2

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.

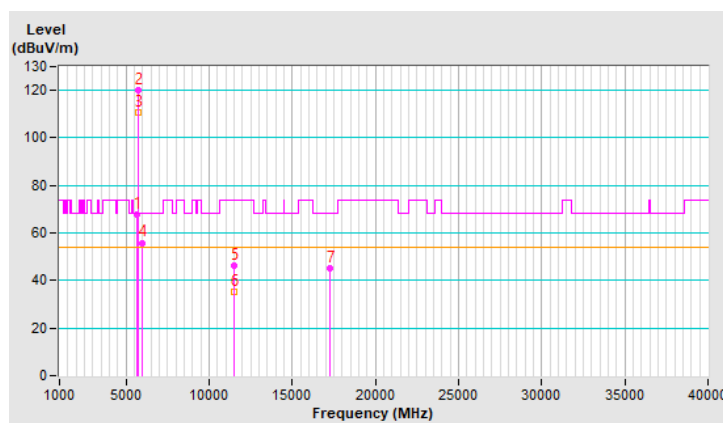


RF Mode	802.11ac (VHT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5648.57	67.5 PK	68.2	-0.7	1.00 H	145	62.8	4.7
2	*5755.00	120.3 PK			1.00 H	145	115.8	4.5
3	*5755.00	110.9 AV			1.00 H	145	106.4	4.5
4	#5939.49	55.9 PK	68.2	-12.3	1.00 H	145	50.8	5.1
5	11510.00	46.1 PK	74.0	-27.9	1.66 H	130	31.2	14.9
6	11510.00	35.3 AV	54.0	-18.7	1.66 H	130	20.4	14.9
7	#17265.00	45.0 PK	68.2	-23.2	1.54 H	179	26.4	18.6

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.

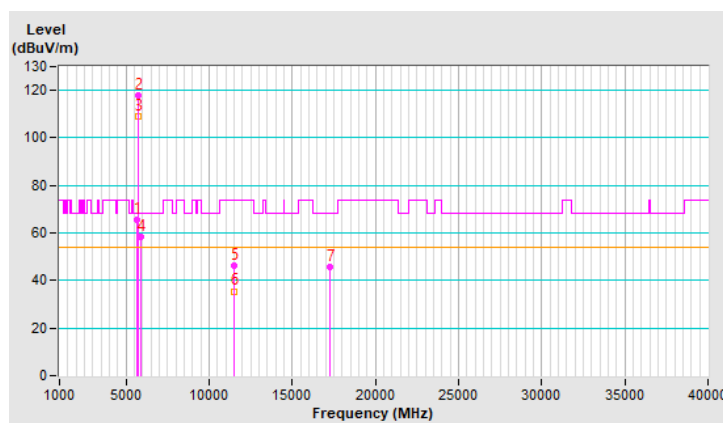


RF Mode	802.11ac (VHT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.45	65.4 PK	68.2	-2.8	2.95 V	190	60.7	4.7
2	*5755.00	117.8 PK			2.95 V	190	113.3	4.5
3	*5755.00	108.9 AV			2.95 V	190	104.4	4.5
4	#5928.42	58.3 PK	68.2	-9.9	2.95 V	190	53.2	5.1
5	11510.00	46.3 PK	74.0	-27.7	1.69 V	199	31.4	14.9
6	11510.00	35.5 AV	54.0	-18.5	1.69 V	199	20.6	14.9
7	#17265.00	45.5 PK	68.2	-22.7	1.53 V	207	26.9	18.6

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.

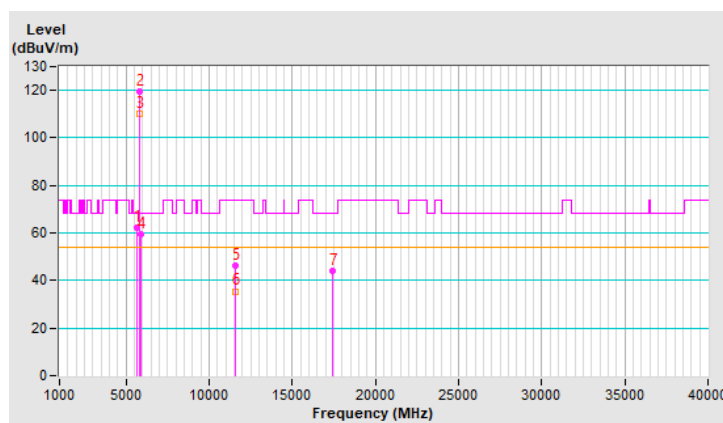


RF Mode	802.11ac (VHT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5646.38	62.0 PK	68.2	-6.2	1.04 H	142	57.3	4.7
2	*5795.00	119.7 PK			1.04 H	142	114.8	4.9
3	*5795.00	110.3 AV			1.04 H	142	105.4	4.9
4	#5923.91	59.4 PK	68.2	-8.8	1.04 H	142	54.3	5.1
5	11590.00	46.3 PK	74.0	-27.7	1.69 H	137	31.7	14.6
6	11590.00	35.5 AV	54.0	-18.5	1.69 H	137	20.9	14.6
7	#17385.00	44.3 PK	68.2	-23.9	1.55 H	170	25.4	18.9

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.

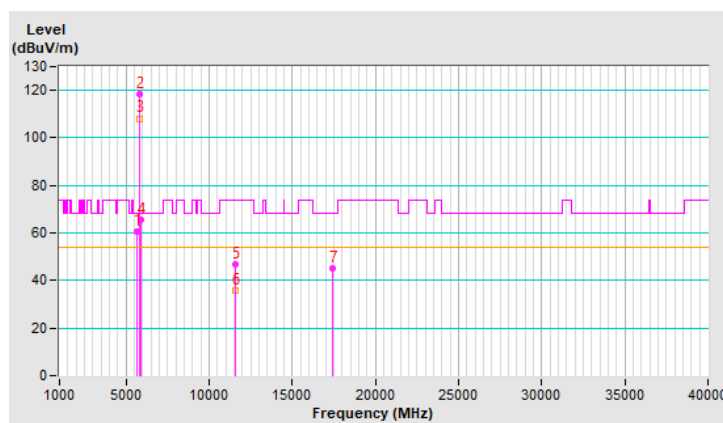


RF Mode	802.11ac (VHT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5644.56	60.8 PK	68.2	-7.4	3.09 V	187	56.1	4.7
2	*5795.00	118.2 PK			3.09 V	187	113.3	4.9
3	*5795.00	108.2 AV			3.09 V	187	103.3	4.9
4	#5924.49	65.4 PK	68.2	-2.8	3.09 V	187	60.3	5.1
5	11590.00	46.8 PK	74.0	-27.2	1.71 V	209	32.2	14.6
6	11590.00	35.7 AV	54.0	-18.3	1.71 V	209	21.1	14.6
7	#17385.00	45.0 PK	68.2	-23.2	1.57 V	204	26.1	18.9

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.

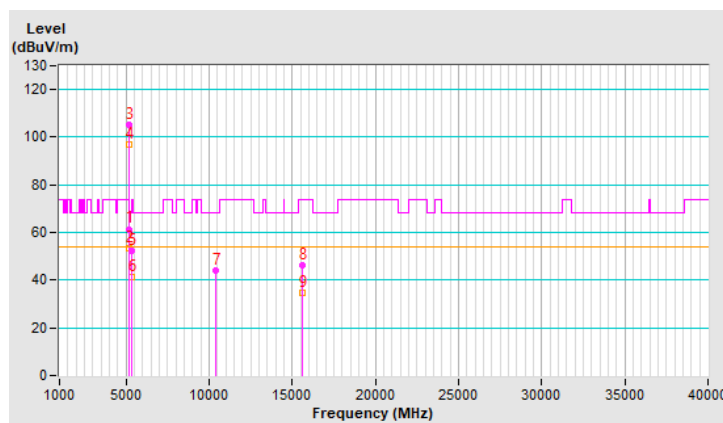


RF Mode	802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	61.4 PK	74.0	-12.6	2.16 H	161	56.9	4.5
2	5150.00	53.4 AV	54.0	-0.6	2.16 H	161	48.9	4.5
3	*5210.00	105.4 PK			2.16 H	161	101.1	4.3
4	*5210.00	96.8 AV			2.16 H	161	92.5	4.3
5	5350.00	52.2 PK	74.0	-21.8	2.16 H	161	48.0	4.2
6	5350.00	41.2 AV	54.0	-12.8	2.16 H	161	37.0	4.2
7	#10420.00	44.1 PK	68.2	-24.1	1.67 H	239	30.0	14.1
8	15630.00	46.0 PK	74.0	-28.0	1.79 H	180	31.7	14.3
9	15630.00	34.5 AV	54.0	-19.5	1.79 H	180	20.2	14.3

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.

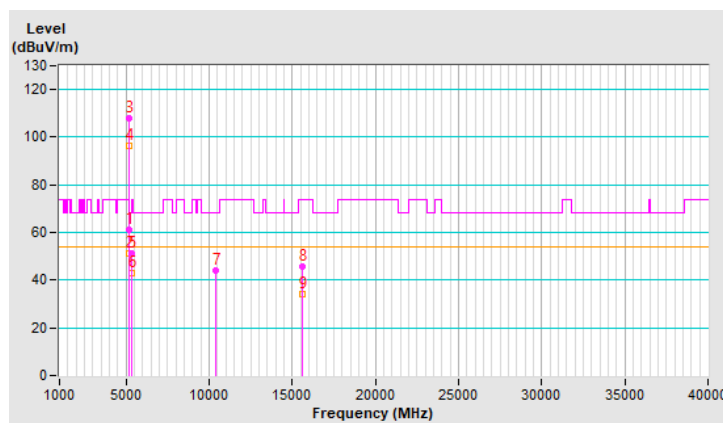


RF Mode	802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	61.0 PK	74.0	-13.0	3.64 V	204	56.5	4.5
2	5150.00	51.3 AV	54.0	-2.7	3.64 V	204	46.8	4.5
3	*5210.00	108.1 PK			3.64 V	204	103.8	4.3
4	*5210.00	96.5 AV			3.64 V	204	92.2	4.3
5	5350.00	51.4 PK	74.0	-22.6	3.64 V	204	47.2	4.2
6	5350.00	42.7 AV	54.0	-11.3	3.64 V	204	38.5	4.2
7	#10420.00	44.1 PK	68.2	-24.1	1.68 V	195	30.0	14.1
8	15630.00	45.8 PK	74.0	-28.2	1.50 V	198	31.5	14.3
9	15630.00	33.9 AV	54.0	-20.1	1.50 V	198	19.6	14.3

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.

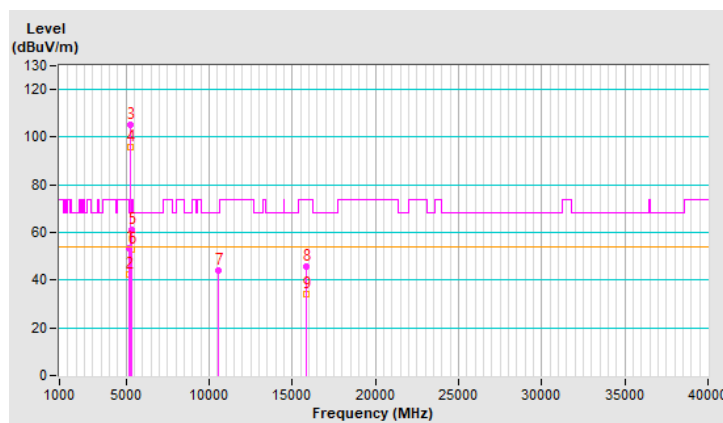


RF Mode	802.11ac (VHT80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	53.3 PK	74.0	-20.7	2.32 H	156	48.8	4.5
2	5150.00	42.4 AV	54.0	-11.6	2.32 H	156	37.9	4.5
3	*5290.00	105.1 PK			2.32 H	156	101.1	4.0
4	*5290.00	95.9 AV			2.32 H	156	91.9	4.0
5	5350.00	61.0 PK	74.0	-13.0	2.32 H	156	56.8	4.2
6	5350.00	53.0 AV	54.0	-1.0	2.32 H	156	48.8	4.2
7	#10580.00	43.9 PK	68.2	-24.3	1.58 H	252	30.1	13.8
8	15870.00	45.5 PK	74.0	-28.5	1.77 H	163	31.0	14.5
9	15870.00	34.2 AV	54.0	-19.8	1.77 H	163	19.7	14.5

Remarks:

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

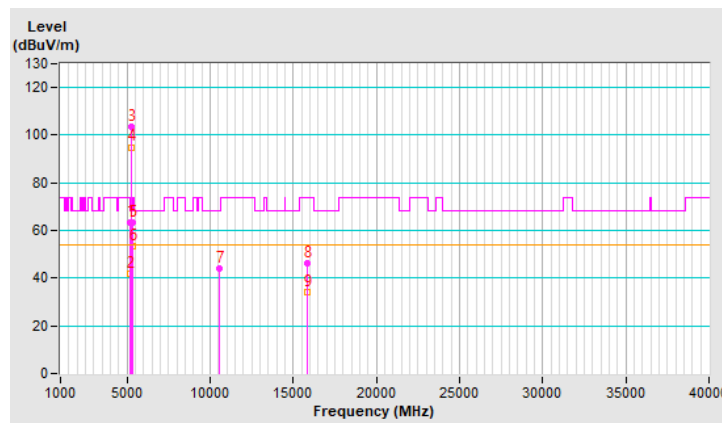


RF Mode	802.11ac (VHT80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.1 PK	74.0	-10.9	1.95 V	108	58.6	4.5
2	5150.00	41.8 AV	54.0	-12.2	1.95 V	108	37.3	4.5
3	*5290.00	103.6 PK			1.95 V	108	99.6	4.0
4	*5290.00	95.0 AV			1.95 V	108	91.0	4.0
5	5350.00	63.5 PK	74.0	-10.5	1.95 V	108	59.3	4.2
6	5350.00	53.5 AV	54.0	-0.5	1.95 V	108	49.3	4.2
7	#10580.00	43.8 PK	68.2	-24.4	1.68 V	189	30.0	13.8
8	15870.00	46.4 PK	74.0	-27.6	1.39 V	182	31.9	14.5
9	15870.00	34.3 AV	54.0	-19.7	1.39 V	182	19.8	14.5

Remarks:

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

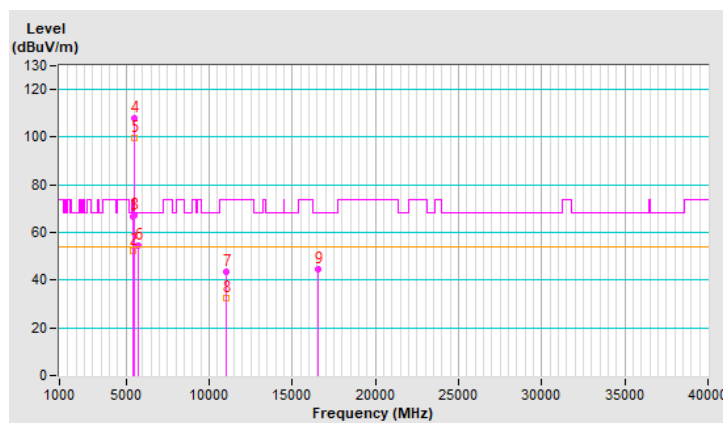


RF Mode	802.11ac (VHT80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	5457.90	66.6 PK	74.0	-7.4	1.09 H	148	62.2	4.4
2	5457.90	52.5 AV	54.0	-1.5	1.09 H	148	48.1	4.4
3	#5470.00	67.3 PK	68.2	-0.9	1.09 H	148	62.9	4.4
4	*5530.00	107.9 PK			1.09 H	148	103.5	4.4
5	*5530.00	99.5 AV			1.09 H	148	95.1	4.4
6	#5725.00	54.6 PK	68.2	-13.6	1.09 H	148	50.0	4.6
7	11060.00	43.7 PK	74.0	-30.3	1.76 H	111	29.5	14.2
8	11060.00	32.4 AV	54.0	-21.6	1.76 H	111	18.2	14.2
9	#16590.00	44.4 PK	68.2	-23.8	1.64 H	197	27.2	17.2

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.

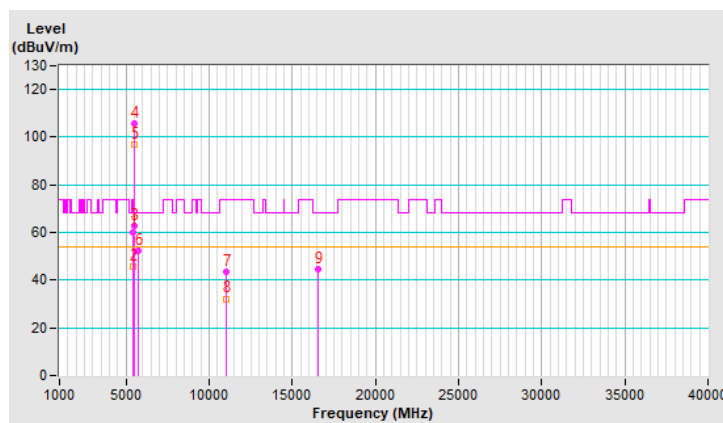


RF Mode	802.11ac (VHT80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	5456.60	60.0 PK	74.0	-14.0	1.32 V	188	55.6	4.4
2	5456.60	45.5 AV	54.0	-8.5	1.32 V	188	41.1	4.4
3	#5470.00	63.0 PK	68.2	-5.2	1.32 V	188	58.6	4.4
4	*5530.00	105.9 PK			1.32 V	188	101.5	4.4
5	*5530.00	96.7 AV			1.32 V	188	92.3	4.4
6	#5755.00	52.4 PK	68.2	-15.8	1.32 V	188	47.9	4.5
7	11060.00	43.3 PK	74.0	-30.7	1.81 V	215	29.1	14.2
8	11060.00	32.2 AV	54.0	-21.8	1.81 V	215	18.0	14.2
9	#16590.00	44.7 PK	68.2	-23.5	1.65 V	206	27.5	17.2

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.

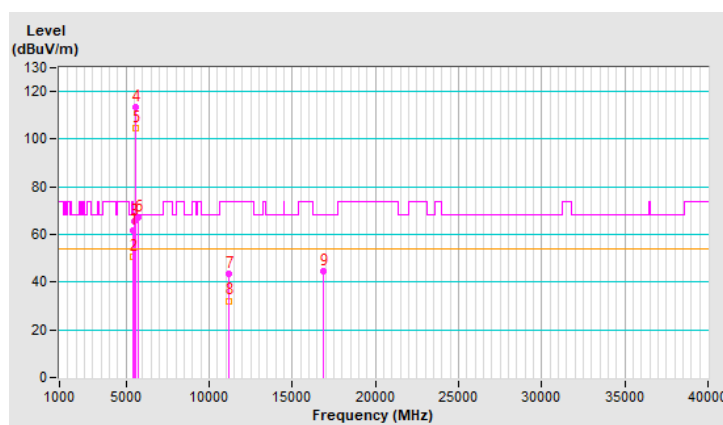


RF Mode	802.11ac (VHT80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	61.7 PK	74.0	-12.3	1.00 H	0	57.3	4.4
2	5460.00	50.5 AV	54.0	-3.5	1.00 H	0	46.1	4.4
3	#5470.00	65.4 PK	68.2	-2.8	1.00 H	0	61.0	4.4
4	*5610.00	113.4 PK			1.01 H	139	108.9	4.5
5	*5610.00	104.4 AV			1.01 H	139	99.9	4.5
6	#5725.00	67.4 PK	68.2	-0.8	1.01 H	139	62.8	4.6
7	11220.00	43.7 PK	74.0	-30.3	1.76 H	106	29.6	14.1
8	11220.00	32.2 AV	54.0	-21.8	1.76 H	106	18.1	14.1
9	#16830.00	44.4 PK	68.2	-23.8	1.58 H	183	26.0	18.4

Remarks:

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

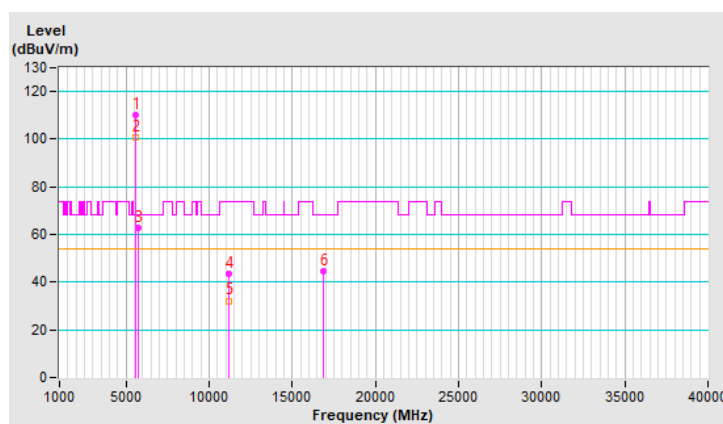


RF Mode	802.11ac (VHT80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	110.3 PK			1.36 V	213	105.8	4.5
2	*5610.00	100.9 AV			1.36 V	213	96.4	4.5
3	#5725.00	62.7 PK	68.2	-5.5	1.36 V	213	58.1	4.6
4	11220.00	43.4 PK	74.0	-30.6	1.87 V	197	29.3	14.1
5	11220.00	32.2 AV	54.0	-21.8	1.87 V	197	18.1	14.1
6	#16830.00	44.5 PK	68.2	-23.7	1.60 V	190	26.1	18.4

Remarks:

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

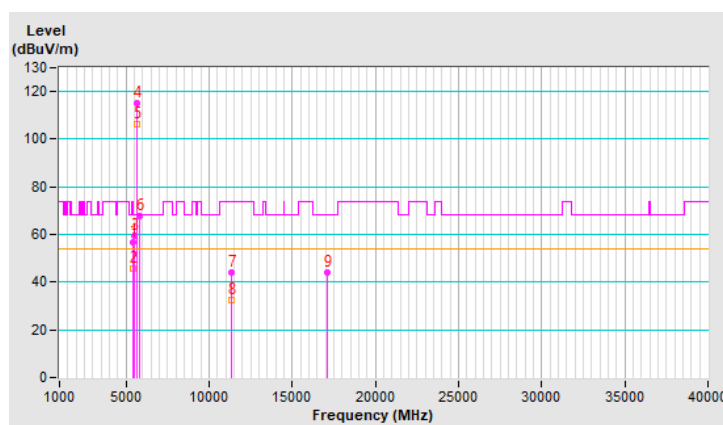


RF Mode	802.11ac (VHT80)	Channel	CH 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	56.9 PK	74.0	-17.1	1.01 H	137	52.5	4.4
2	5460.00	45.7 AV	54.0	-8.3	1.01 H	137	41.3	4.4
3	#5470.00	59.3 PK	68.2	-8.9	1.01 H	137	54.9	4.4
4	*5690.00	115.1 PK			1.01 H	137	110.6	4.5
5	*5690.00	106.4 AV			1.01 H	137	101.9	4.5
6	#5850.00	67.5 PK	68.2	-0.7	1.01 H	137	62.4	5.1
7	11380.00	44.2 PK	74.0	-29.8	1.71 H	107	29.2	15.0
8	11380.00	32.6 AV	54.0	-21.4	1.71 H	107	17.6	15.0
9	#17070.00	44.3 PK	68.2	-23.9	1.59 H	192	25.1	19.2

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.

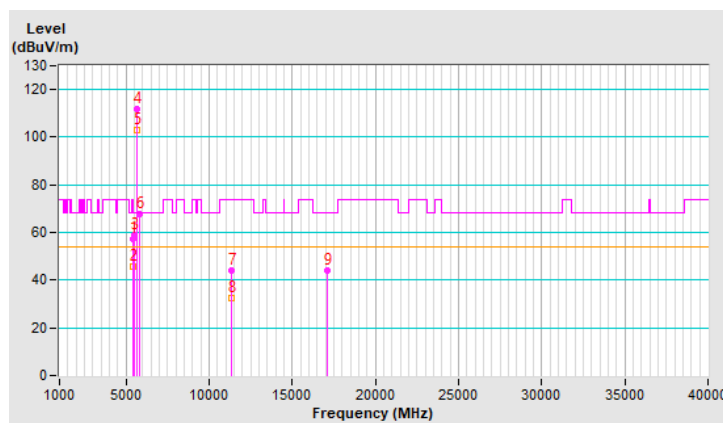


RF Mode	802.11ac (VHT80)	Channel	CH 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	1.35 V	199	52.7	4.4
2	5460.00	45.7 AV	54.0	-8.3	1.35 V	199	41.3	4.4
3	#5470.00	58.7 PK	68.2	-9.5	1.35 V	199	54.3	4.4
4	*5690.00	111.9 PK			1.35 V	199	107.4	4.5
5	*5690.00	102.8 AV			1.35 V	199	98.3	4.5
6	#5850.00	67.6 PK	68.2	-0.6	1.35 V	199	62.5	5.1
7	11380.00	43.8 PK	74.0	-30.2	1.82 V	211	28.8	15.0
8	11380.00	32.7 AV	54.0	-21.3	1.82 V	211	17.7	15.0
9	#17070.00	44.2 PK	68.2	-24.0	1.64 V	206	25.0	19.2

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.

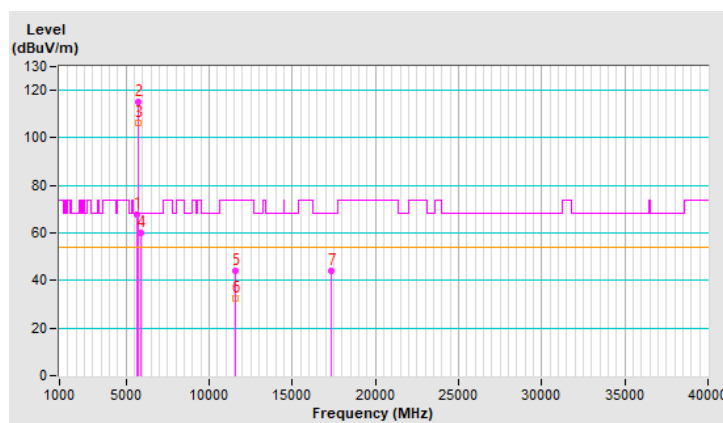


RF Mode	802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	#5649.16	67.6 PK	68.2	-0.6	1.14 H	142	62.9	4.7
2	*5775.00	115.2 PK			1.14 H	142	110.5	4.7
3	*5775.00	106.3 AV			1.14 H	142	101.6	4.7
4	#5926.75	60.1 PK	68.2	-8.1	1.14 H	142	55.0	5.1
5	11550.00	43.9 PK	74.0	-30.1	1.72 H	121	29.2	14.7
6	11550.00	32.6 AV	54.0	-21.4	1.72 H	121	17.9	14.7
7	#17325.00	44.2 PK	68.2	-24.0	1.59 H	185	25.7	18.5

Remarks:

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

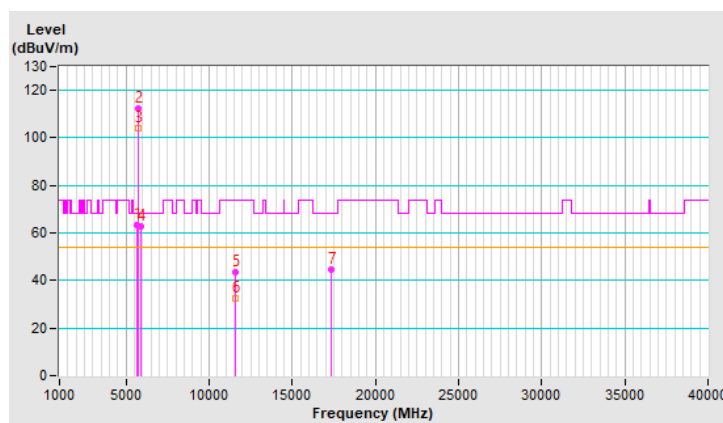


RF Mode	802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120Vac,60Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5628.42	63.5 PK	68.2	-4.7	3.25 V	190	58.9	4.6
2	*5775.00	112.1 PK			3.25 V	190	107.4	4.7
3	*5775.00	104.1 AV			3.25 V	190	99.4	4.7
4	#5928.12	63.0 PK	68.2	-5.2	3.25 V	190	57.9	5.1
5	11550.00	43.7 PK	74.0	-30.3	1.76 V	201	29.0	14.7
6	11550.00	32.4 AV	54.0	-21.6	1.76 V	201	17.7	14.7
7	#17325.00	44.7 PK	68.2	-23.5	1.59 V	192	26.2	18.5

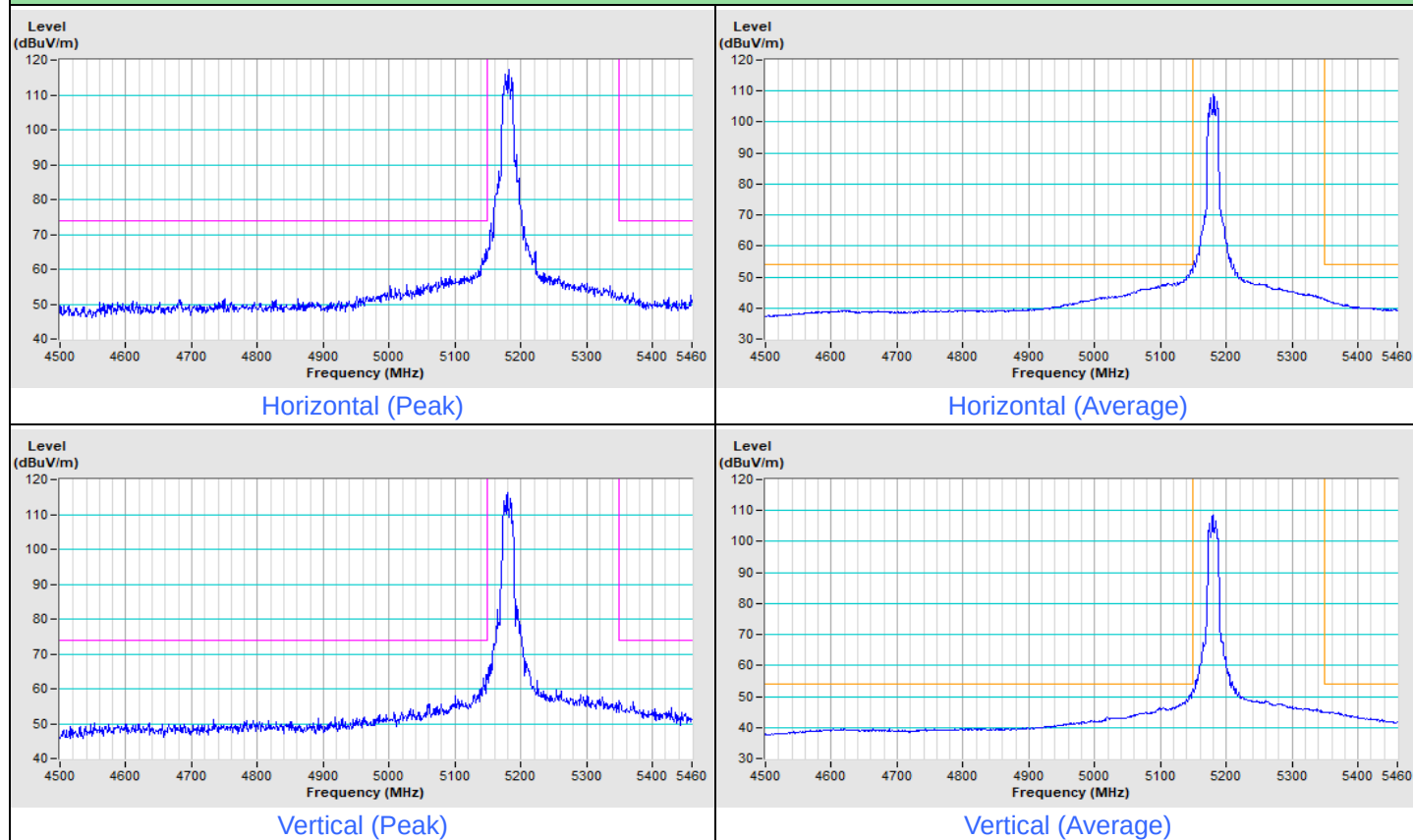
Remarks:

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

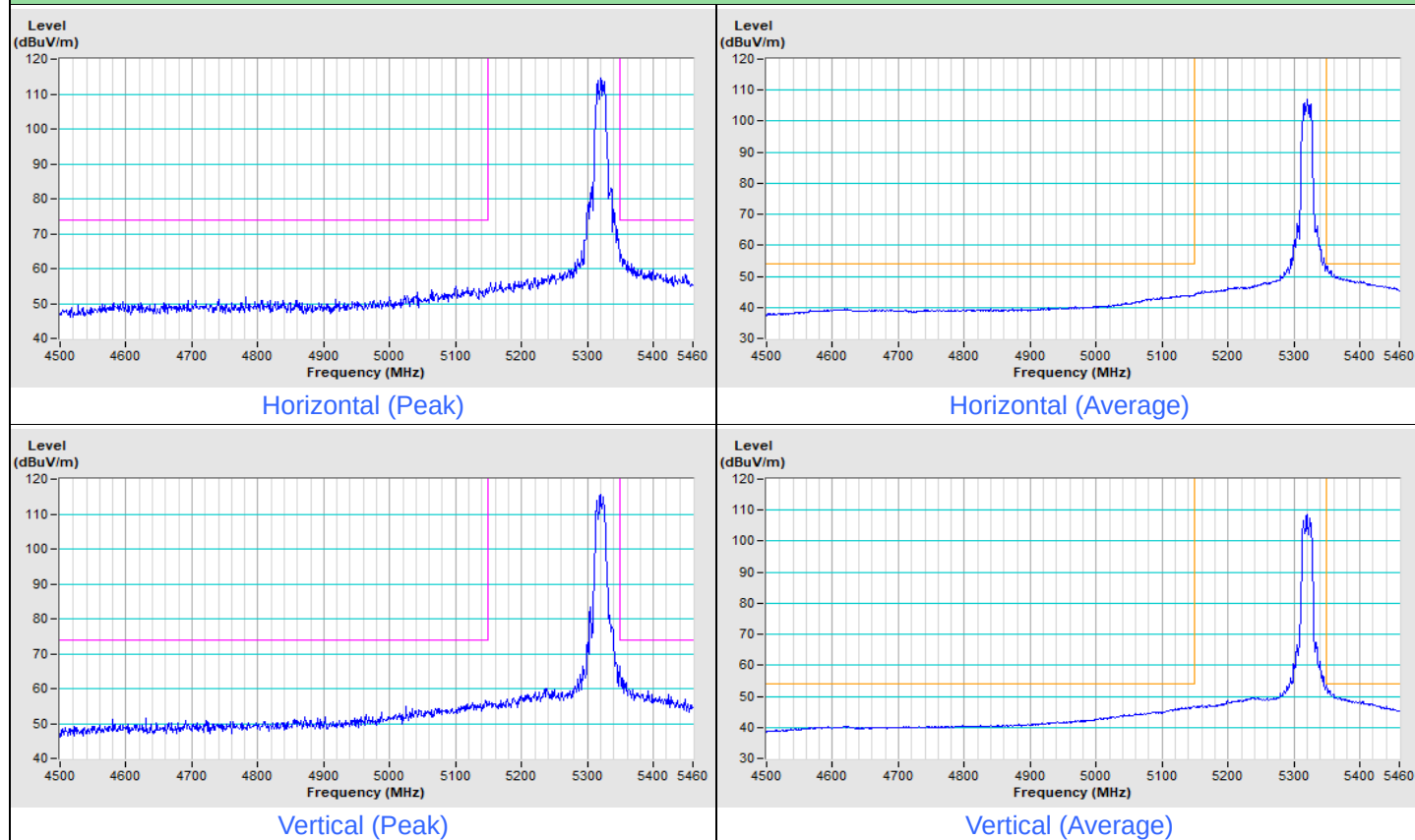


Plot of Band Edge

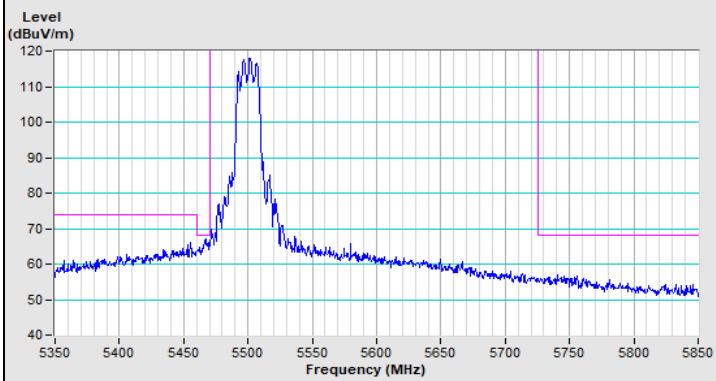
802.11a Channel 36



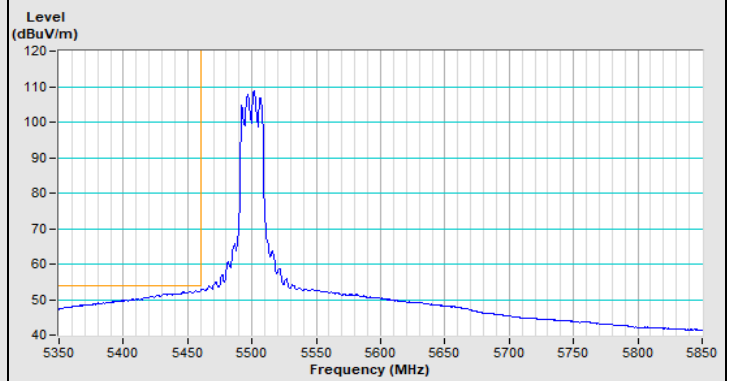
802.11a Channel 64



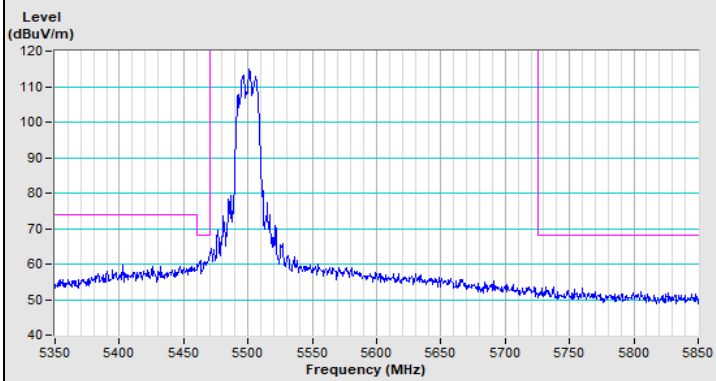
802.11a Channel 100



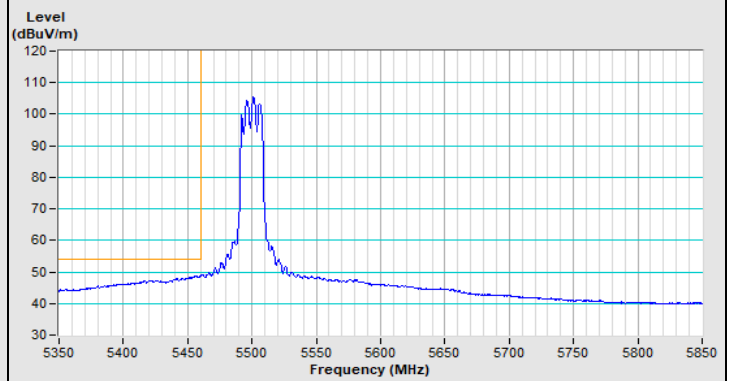
Horizontal (Peak)



Horizontal (Average)

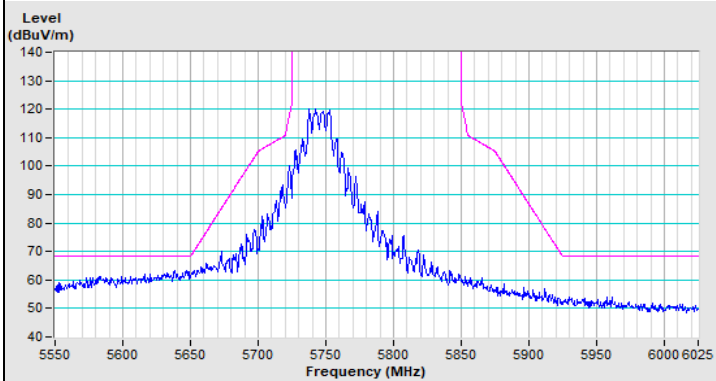


Vertical (Peak)

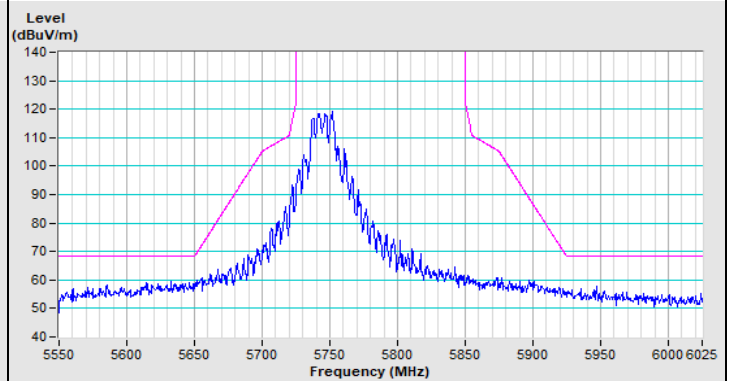


Vertical (Average)

802.11a Channel 149

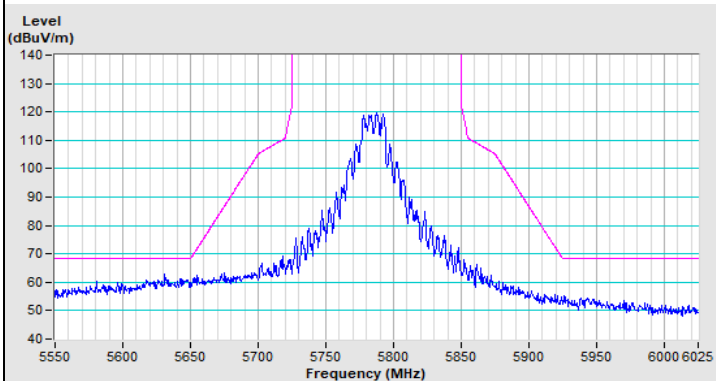


Horizontal (Peak)

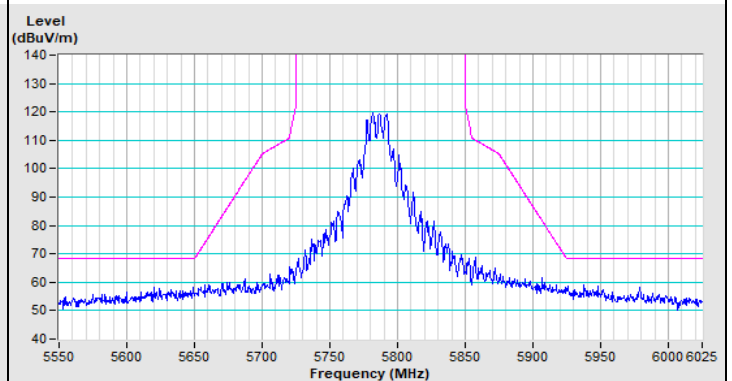


Vertical (Peak)

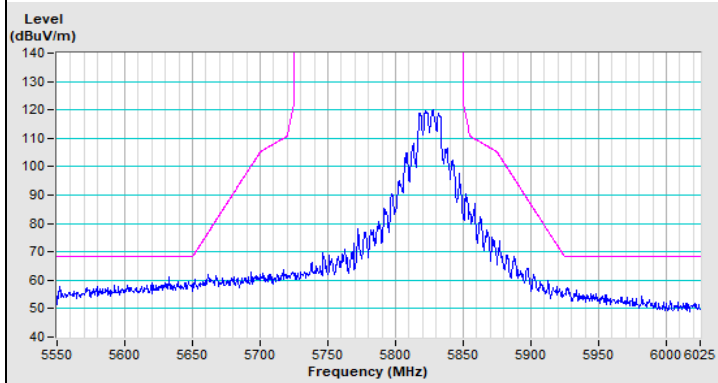
802.11a Channel 157



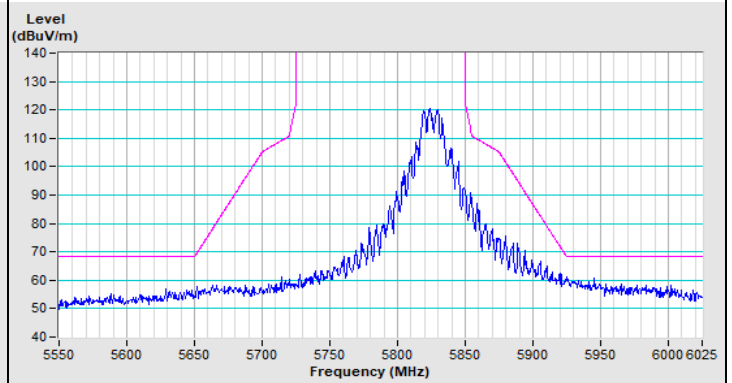
Horizontal (Peak)



Vertical (Peak)

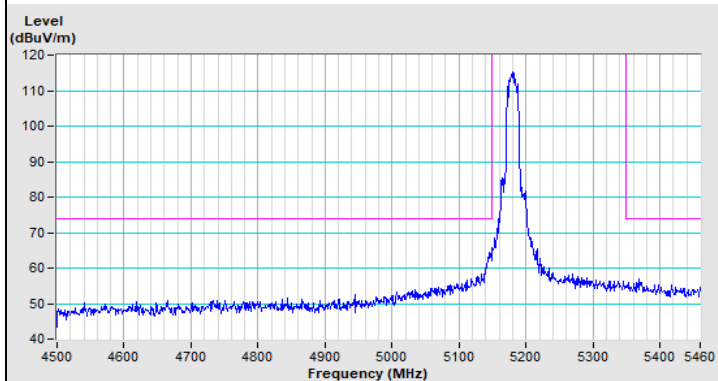
802.11a Channel 165

Horizontal (Peak)

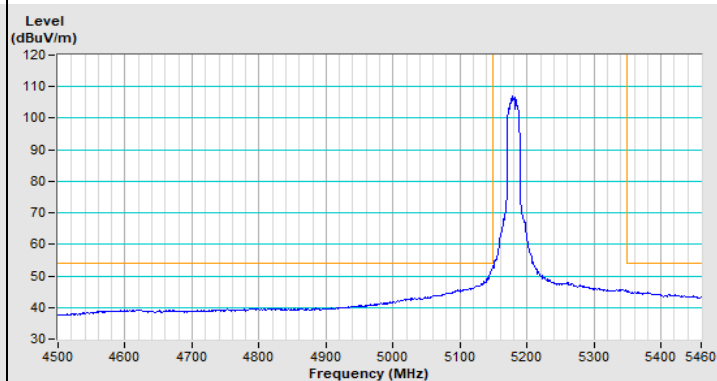


Vertical (Peak)

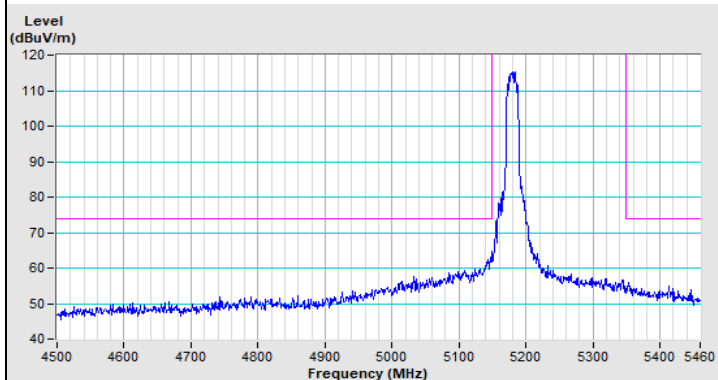
802.11ac (VHT20) Channel 36



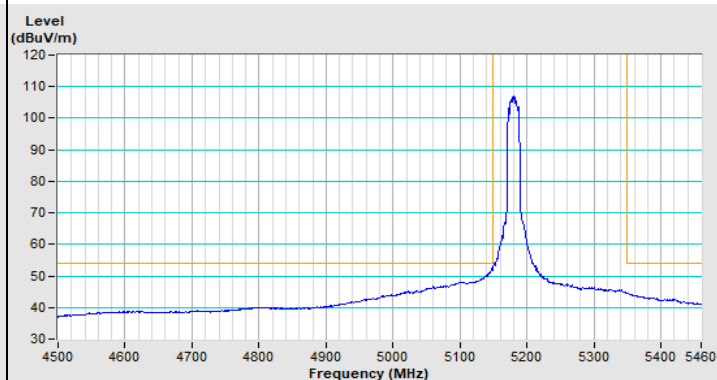
Horizontal (Peak)



Horizontal (Average)

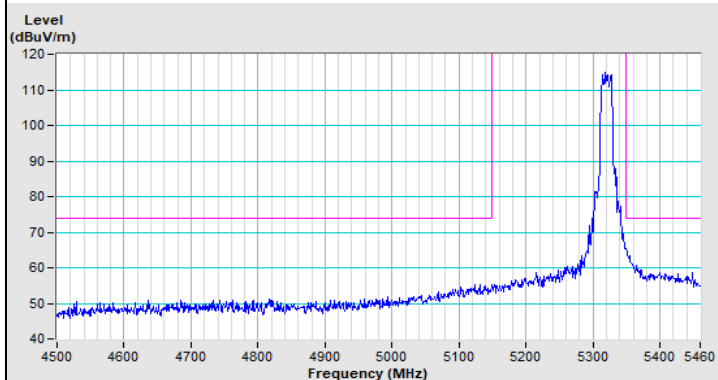


Vertical (Peak)

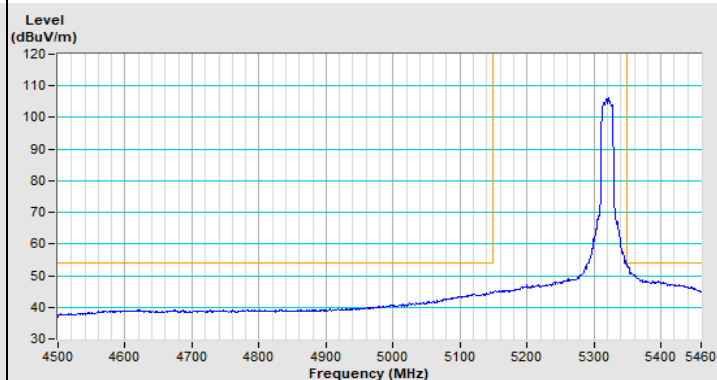


Vertical (Average)

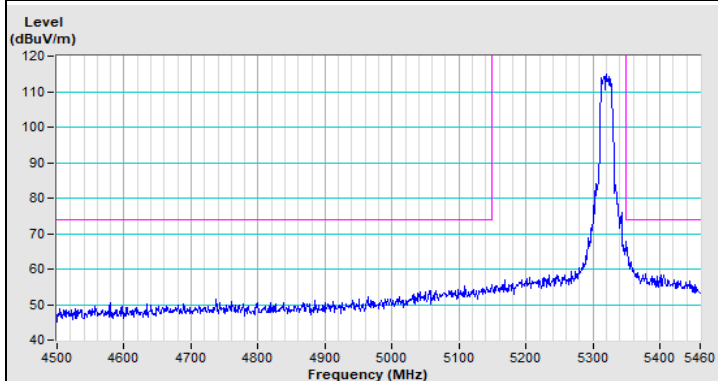
802.11ac (VHT20) Channel 64



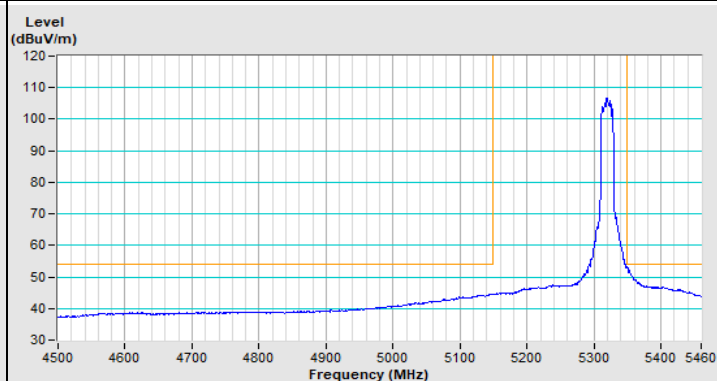
Horizontal (Peak)



Horizontal (Average)

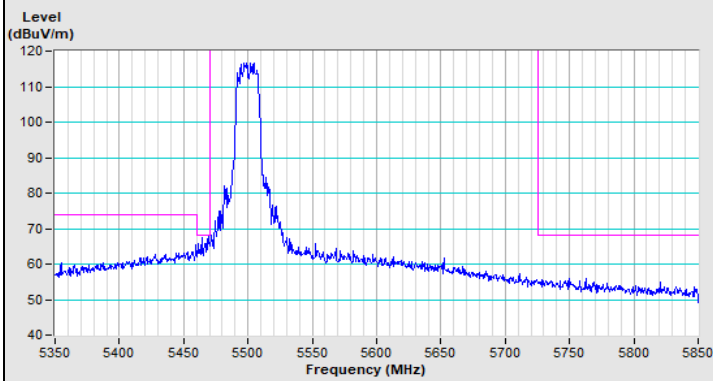


Vertical (Peak)

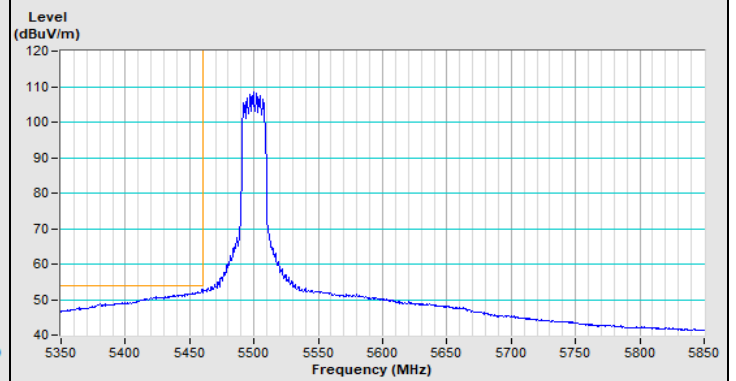


Vertical (Average)

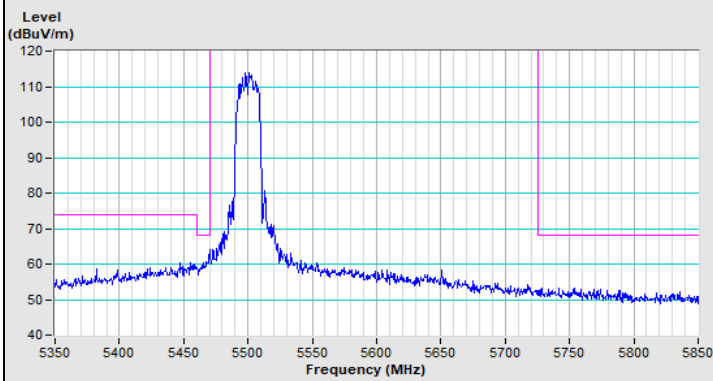
802.11ac (VHT20) Channel 100



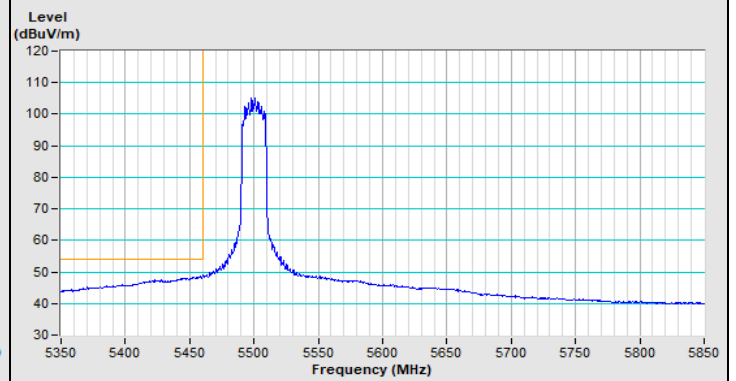
Horizontal (Peak)



Horizontal (Average)

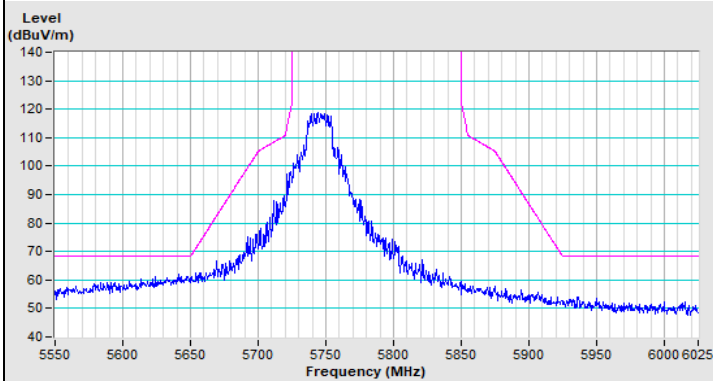


Vertical (Peak)

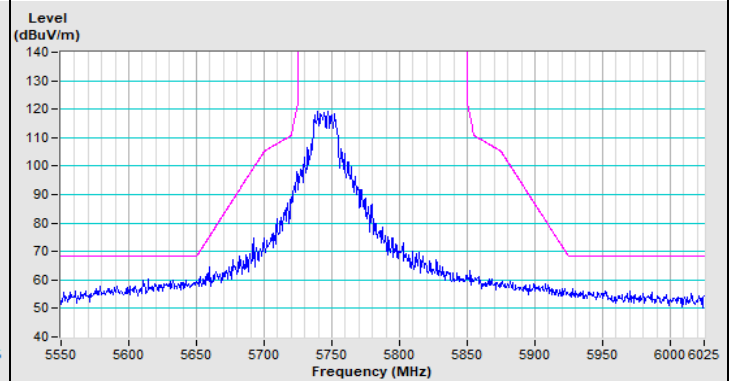


Vertical (Average)

802.11ac (VHT20) Channel 149

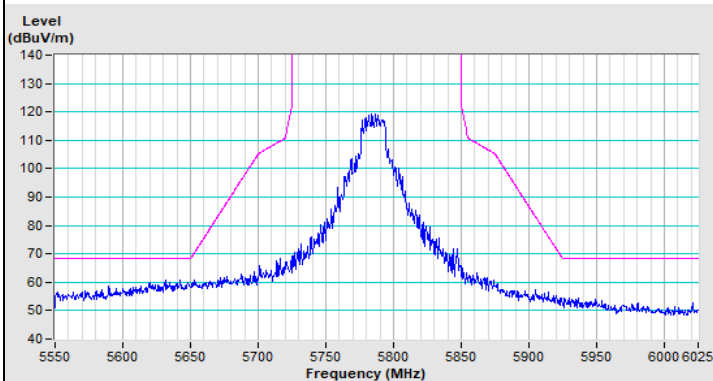


Horizontal (Peak)

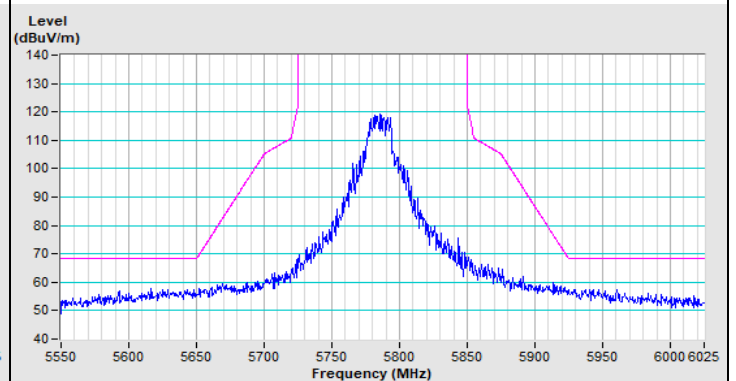


Vertical (Peak)

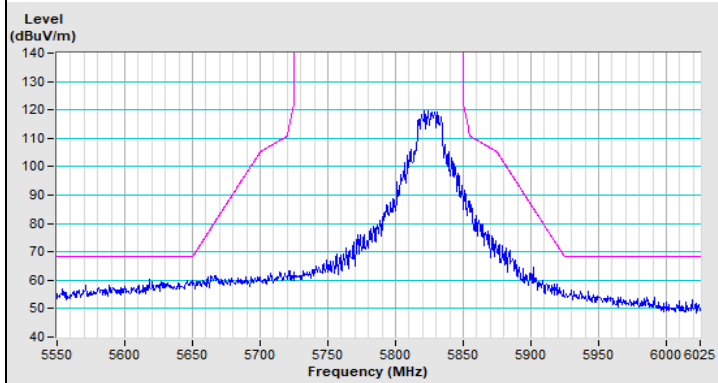
802.11ac (VHT20) Channel 157



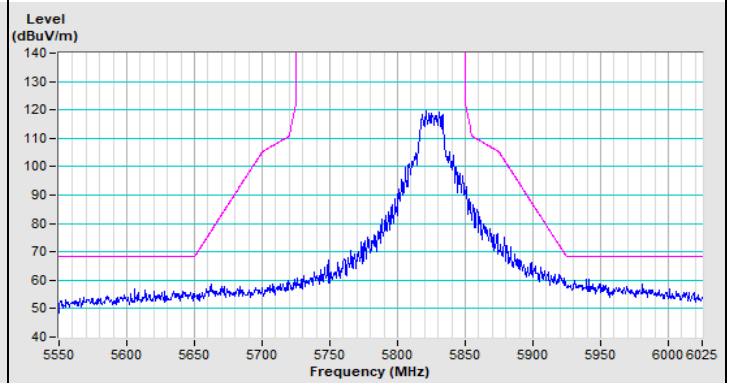
Horizontal (Peak)



Vertical (Peak)

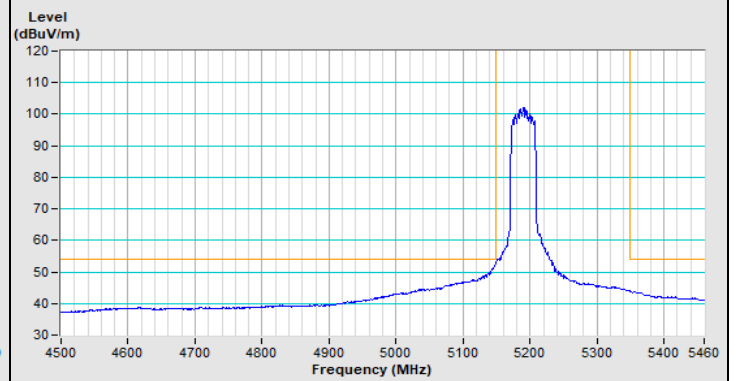
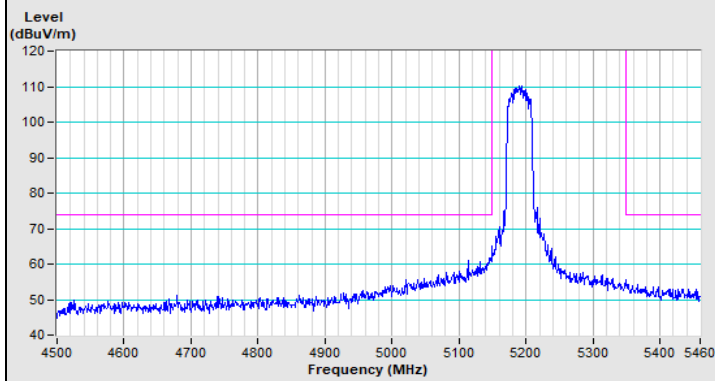
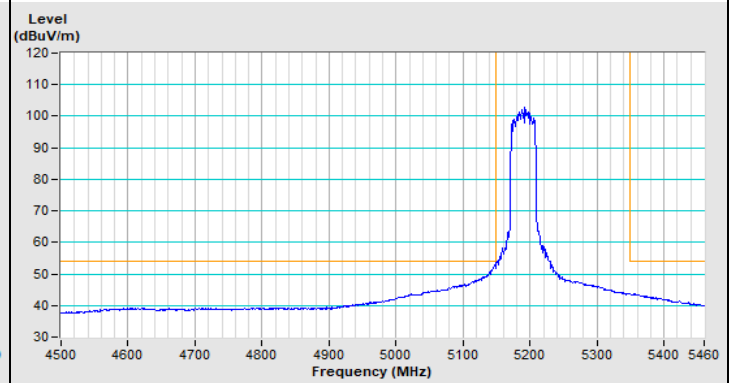
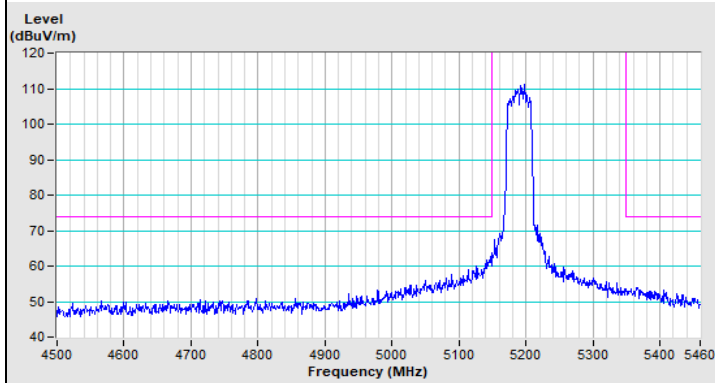
802.11ac (VHT20) Channel 165

Horizontal (Peak)

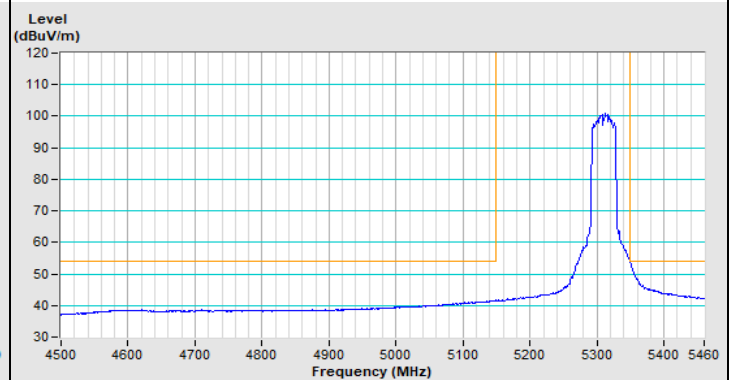
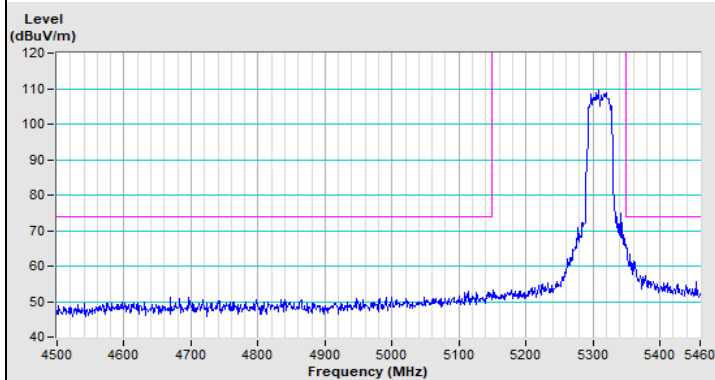
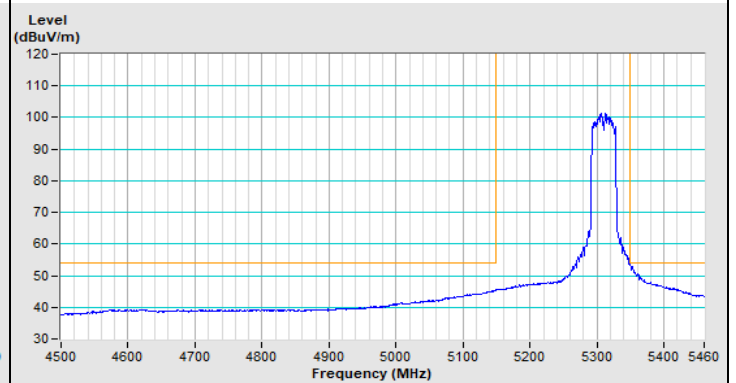
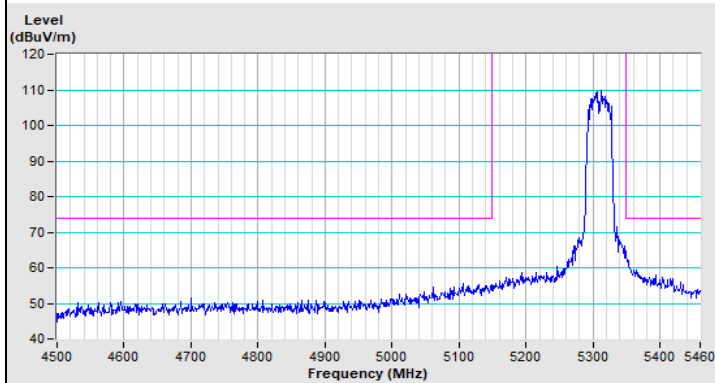


Vertical (Peak)

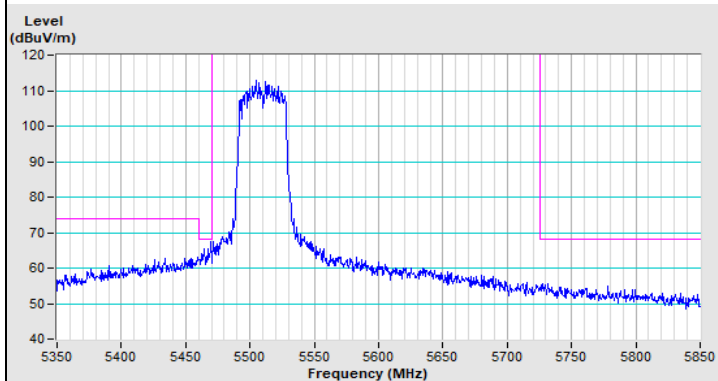
802.11ac (VHT40) Channel 38



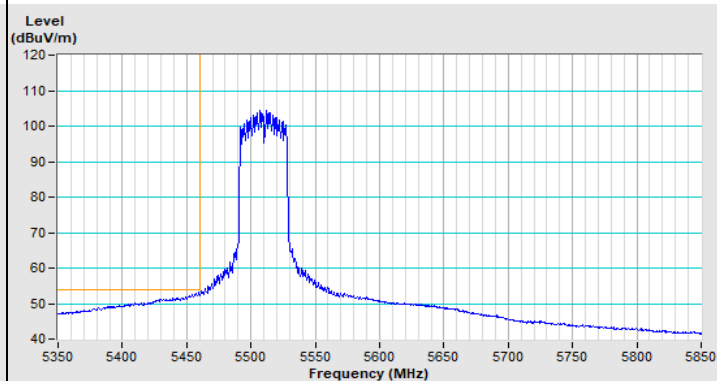
802.11ac (VHT40) Channel 62



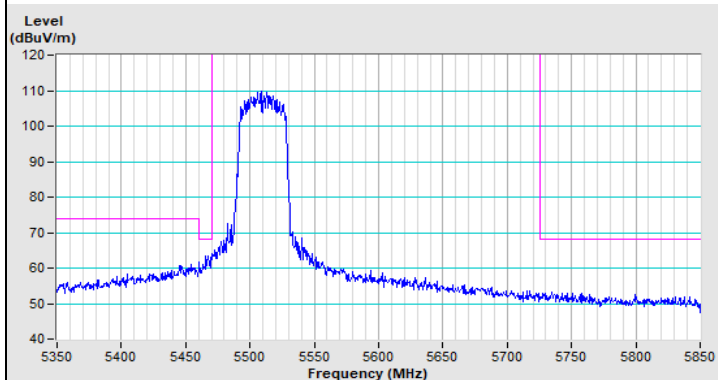
802.11ac (VHT40) Channel 102



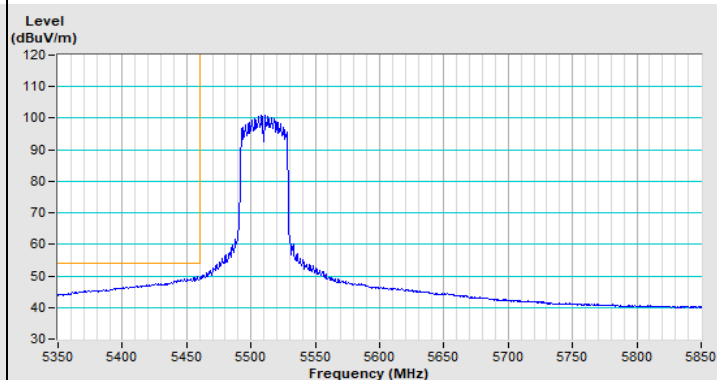
Horizontal (Peak)



Horizontal (Average)

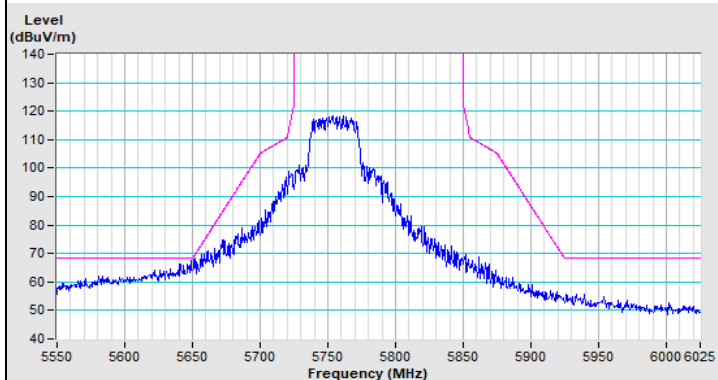


Vertical (Peak)

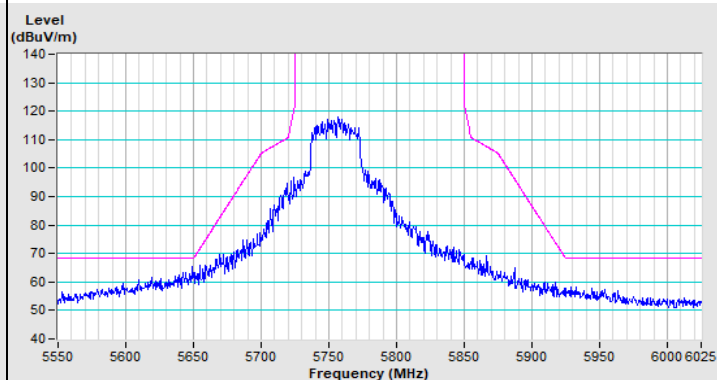


Vertical (Average)

802.11ac (VHT40) Channel 151

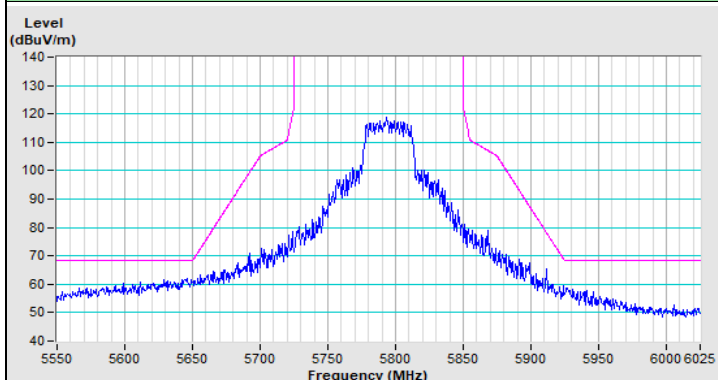


Horizontal (Peak)

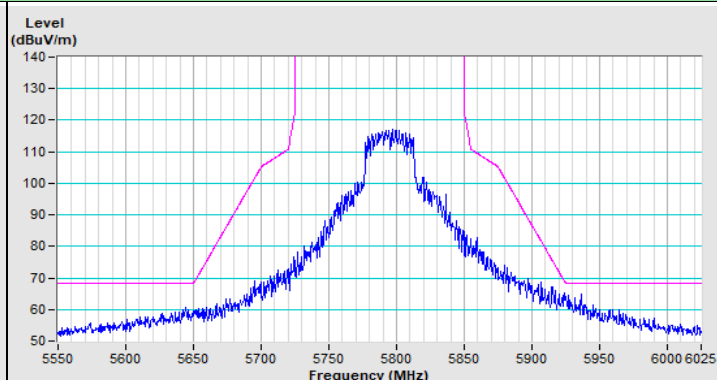


Vertical (Peak)

802.11ac (VHT40) Channel 159

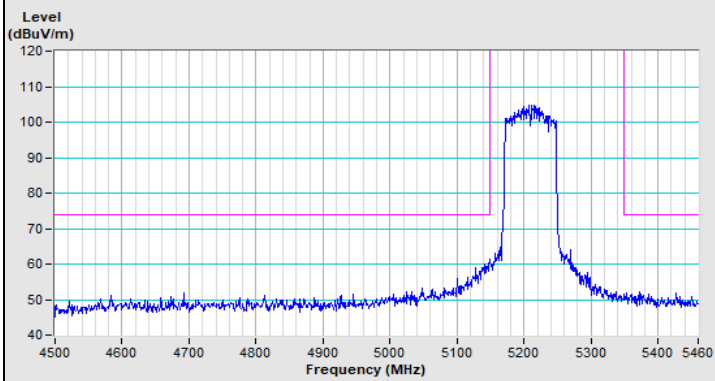


Horizontal (Peak)

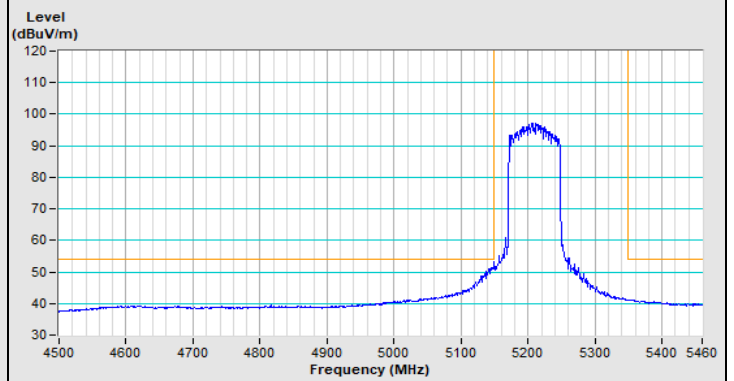


Vertical (Peak)

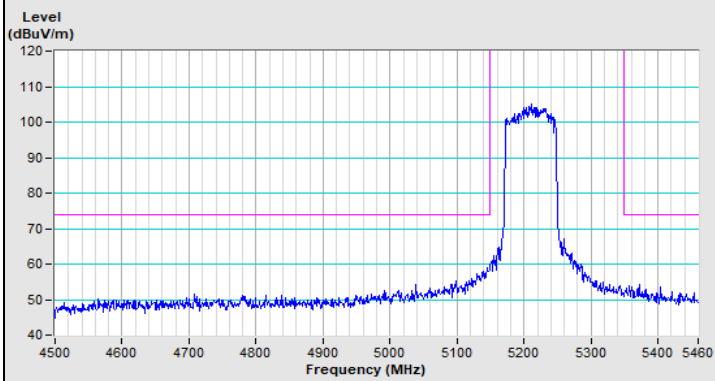
802.11ac (VHT80) Channel 42



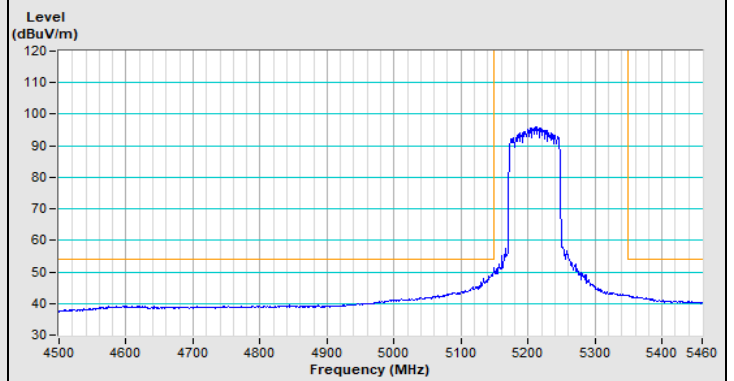
Horizontal (Peak)



Horizontal (Average)

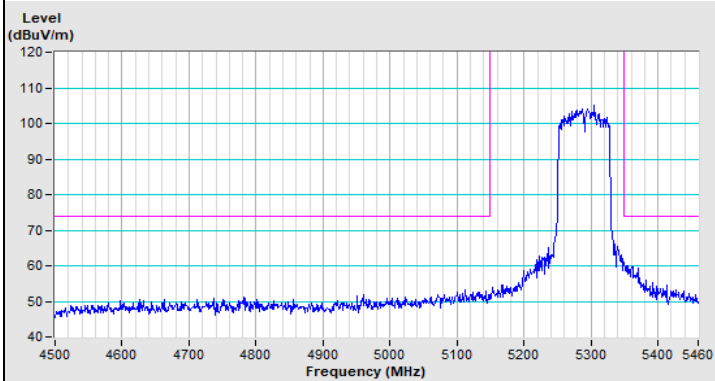


Vertical (Peak)

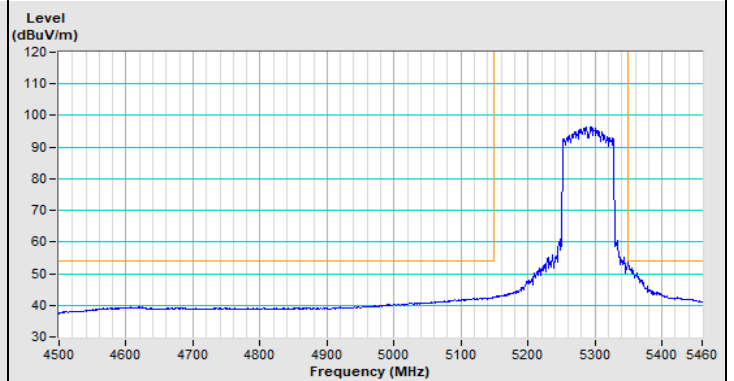


Vertical (Average)

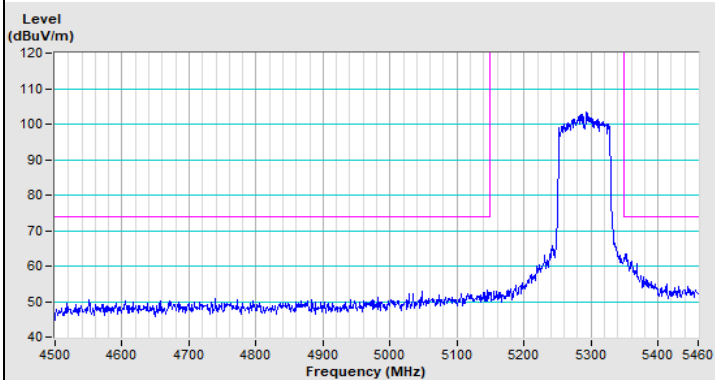
802.11ac (VHT80) Channel 58



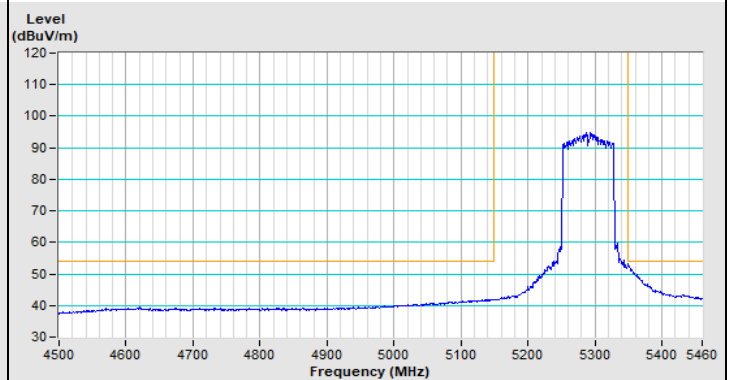
Horizontal (Peak)



Horizontal (Average)

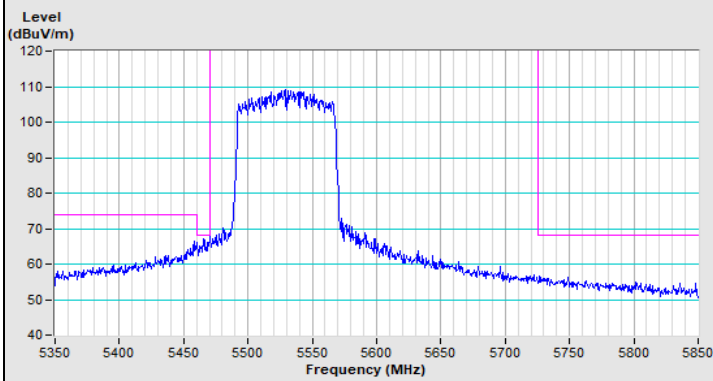


Vertical (Peak)

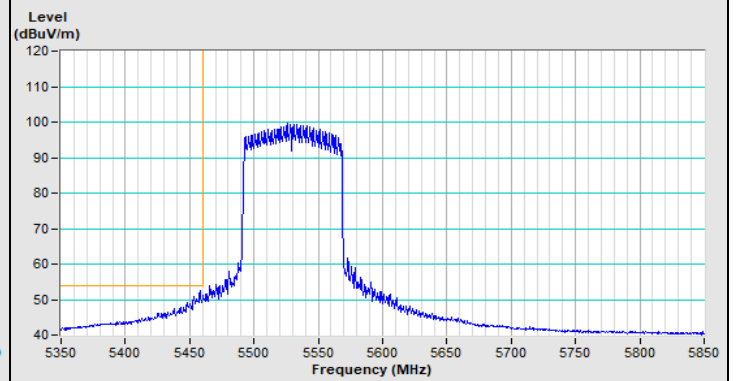


Vertical (Average)

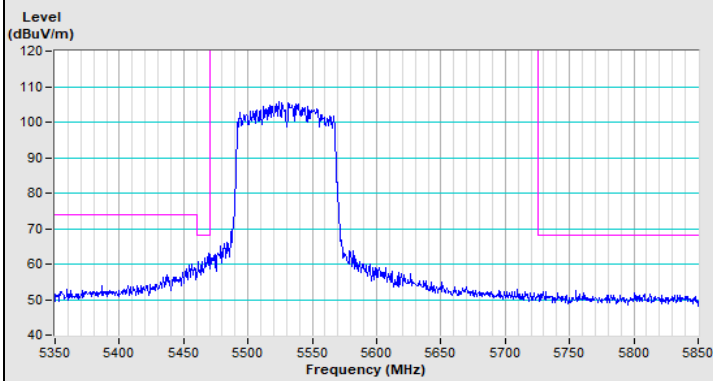
802.11ac (VHT80) Channel 106



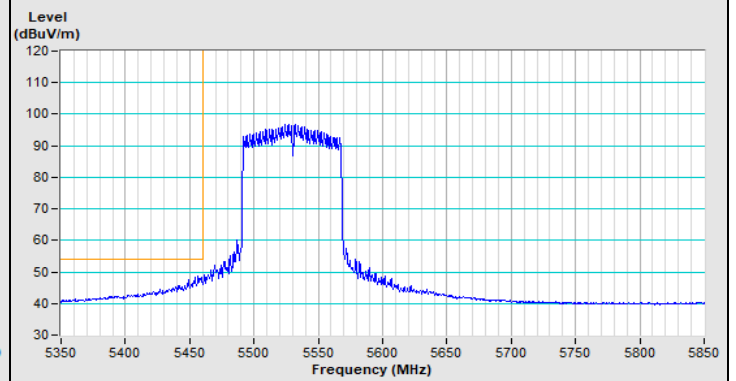
Horizontal (Peak)



Horizontal (Average)

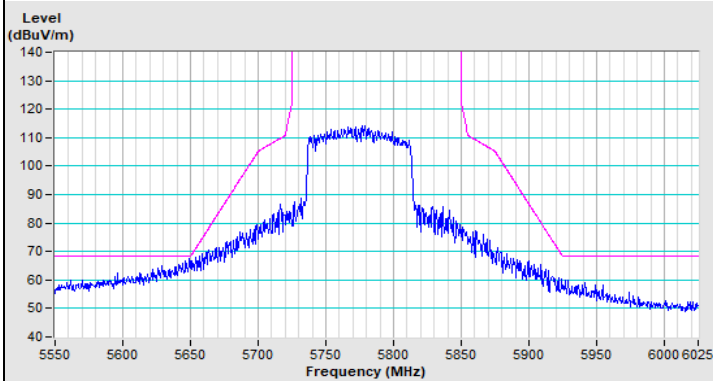


Vertical (Peak)

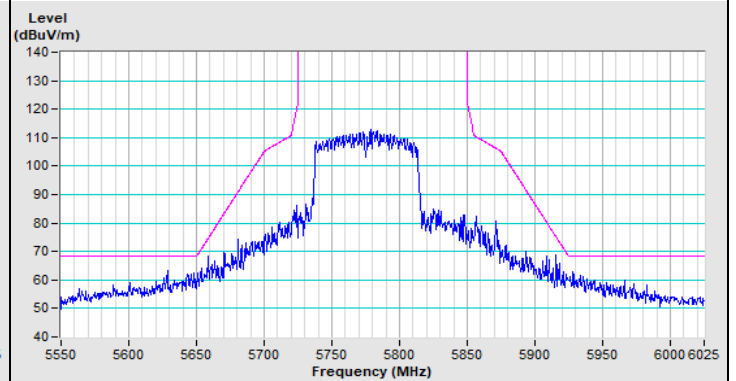


Vertical (Average)

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.

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