

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBAOZ-WTW-P22080887-1

FCC ID: 2A84E-AVAF7D

Product: FLEX

Brand: AVA

Model No.: FLEX

Received Date: 2022/8/26

Test Date: 2022/9/7 ~ 2022/10/7

Issued Date: 2022/12/5

Applicant: Ava Video Security Ltd

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 723255 / TW2022

Designation Number:

Approved by:  , Date: 2022/12/5

May Chen / Manager

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Prepared by : Vito Lung / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBAOZ-WTW-P22080887-1	Original release.	2022/12/5

1 Certificate

Product: FLEX

Brand: AVA

Test Model: FLEX

Sample Status: Engineering sample

Applicant: Ava Video Security Ltd

Test Date: 2022/9/7 ~ 2022/10/7

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

Measurement ANSI C63.10-2013

procedure: KDB 789033 D02 General UNII Test Procedure New Rules v02r01

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)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	-	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 -11.07 dB at 12.19922 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.0 dB at 56.87 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.2 dB at 5150.00 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) (±)
Occupied Bandwidth	-	960 Hz
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	5.1 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	FLEX
Brand	AVA
Test Model	FLEX
Status of EUT	Engineering sample
Power Supply Rating	56 Vdc from POE
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode
Modulation Technology	OFDM
Transfer Rate	802.11a: up to 54Mbps 802.11n: up to 150Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	5.18 GHz ~ 5.24 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20): 9 802.11n (HT40), 802.11ac (VHT40): 4 802.11ac (VHT80): 2
Output Power	5.18 GHz ~ 5.24 GHz : 30.62 mW (14.86 dBm) 5.745 GHz ~ 5.825 GHz : 29.235 mW (14.66 dBm)
Accessory Device	SD card x8
EUT Category	Client device

Note:

- The EUT has below radios as following table:

Radio 1	Radio 2
WLAN (2.4GHz + 5GHz) + Bluetooth	IEEE 802.15.4

- Simultaneously transmission condition

Condition	Technology	
1	WLAN (2.4GHz)	IEEE 802.15.4
2	WLAN (5GHz)	IEEE 802.15.4
3	Bluetooth	IEEE 802.15.4

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

- The EUT could be supplied with SD card and following different models could be chosen:

No.	Brand	Capacity
1	Micron	64G
2	Micron	128G
3	Micron	256G
4	Micron	512G
5	Western Digital	64G
6	Western Digital	128G
7	Western Digital	256G
8	Western Digital	512G

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	Antenna Net Gain (dBi)	Frequency range (MHz)	Antenna Type	Connector Type	Cable Length (cm)
1 (WIFI+BT)	2.36	2400-2500	FPC	ipex(MHF)	6.8
	3.57	5150-5850	FPC		
2 (802.15.4)	3.25	2400-2500	FPC	ipex(MHF)	12

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

2. The EUT incorporates a SISO function:

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

3.3 Channel List

FOR 5180 ~ 5240 MHz

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

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

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

Channel	Frequency
38	5190 MHz
46	5230 MHz

1 channels are provided for 802.11ac (VHT80):

Channel	Frequency
42	5210 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 SD Card has the following models: Micron 64G, 128G, 256G, 512G/ Western Digital 64G, 128G, 256G, 512G. Pre-scan these models of SD Card and find the worst case as a representative test condition. 2. EUT can be used in the following ways: Wall Mount with Camera X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. SD Card Worst Condition: Western Digital 512G 2. Wall Mount with Camera X-axis/ Y-axis/ Z-axis Worst Condition: Z-axis 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).

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

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11a	36, 40, 48, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 155	BPSK	MCS0
Power Spectral Density	802.11a	36, 40, 48, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 155	BPSK	MCS0
6 dB Bandwidth	802.11a	149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	149, 157, 165	BPSK	MCS0
	802.11n (HT40)	151, 159	BPSK	MCS0
	802.11ac (VHT20)	149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	151, 159	BPSK	MCS0
	802.11ac (VHT80)	155	BPSK	MCS0
Occupied Bandwidth	802.11a	36, 40, 48, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 155	BPSK	MCS0
Frequency Stability	802.11a	36	un-modulation	-
AC Power Conducted Emissions	802.11a	36	BPSK	6Mb/s

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions below 1 GHz	802.11a	36	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11n (HT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT20)	36, 40, 48, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 155	BPSK	MCS0

3.5 Duty Cycle of Test Signal

802.11a: Duty cycle = $2.066 \text{ ms} / 2.085 \text{ ms} \times 100\% = 99.1\%$

802.11n (HT20): Duty cycle = $1.337 \text{ ms} / 1.386 \text{ ms} \times 100\% = 96.5\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.16 \text{ dB}$

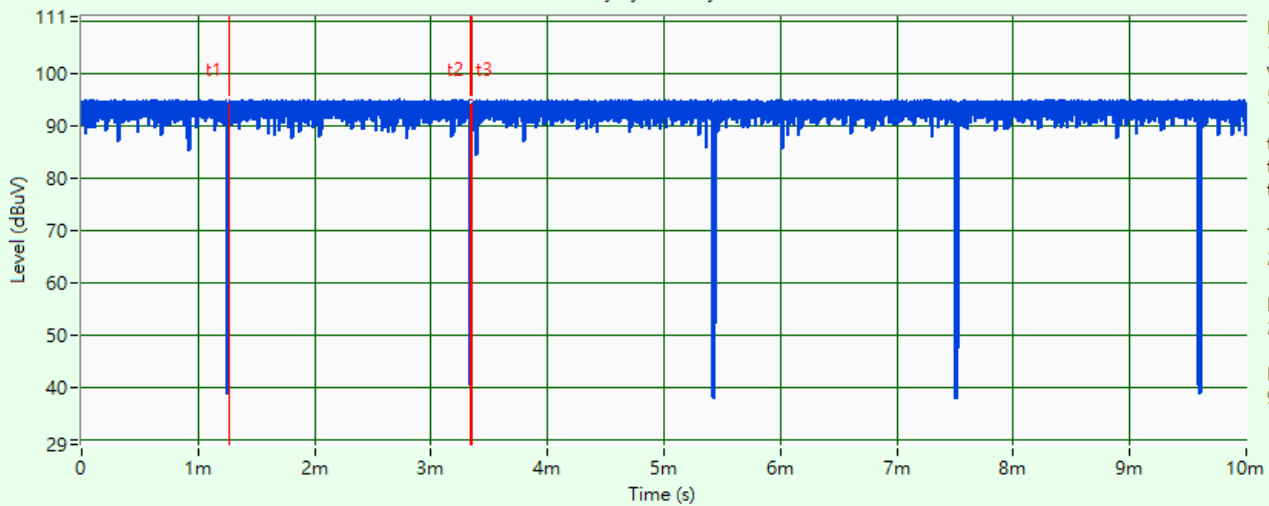
802.11n (HT40): Duty cycle = $0.669 \text{ ms} / 0.716 \text{ ms} \times 100\% = 93.4\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.29 \text{ dB}$

802.11ac (VHT20): Duty cycle = $1.934 \text{ ms} / 2.033 \text{ ms} \times 100\% = 95.1\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.22 \text{ dB}$

802.11ac (VHT40): Duty cycle = $0.956 \text{ ms} / 1.055 \text{ ms} \times 100\% = 90.6\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.43 \text{ dB}$

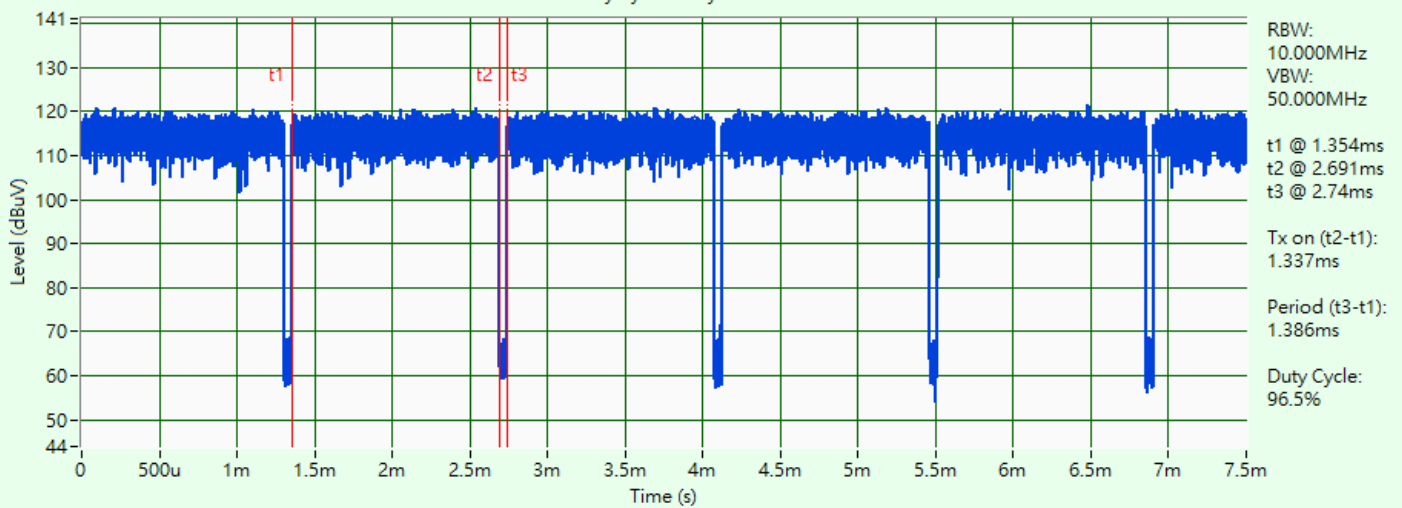
802.11ac (VHT80): Duty cycle = $0.073 \text{ ms} / 0.173 \text{ ms} \times 100\% = 42.2\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 3.75 \text{ dB}$

Duty Cycle Analysis



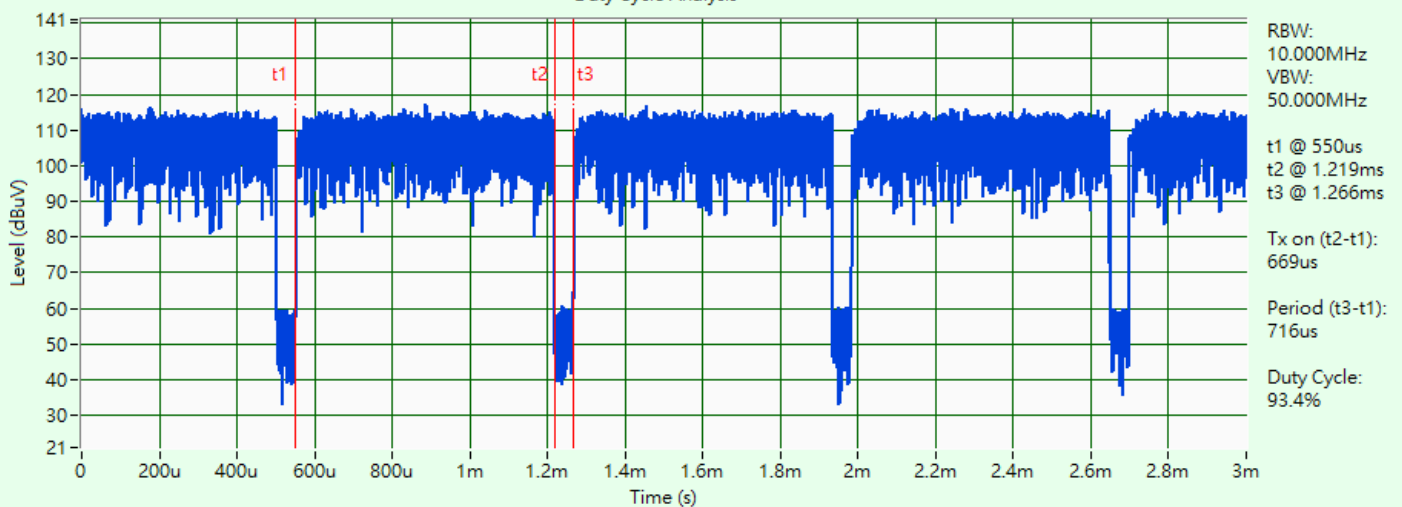
802.11a

Duty Cycle Analysis



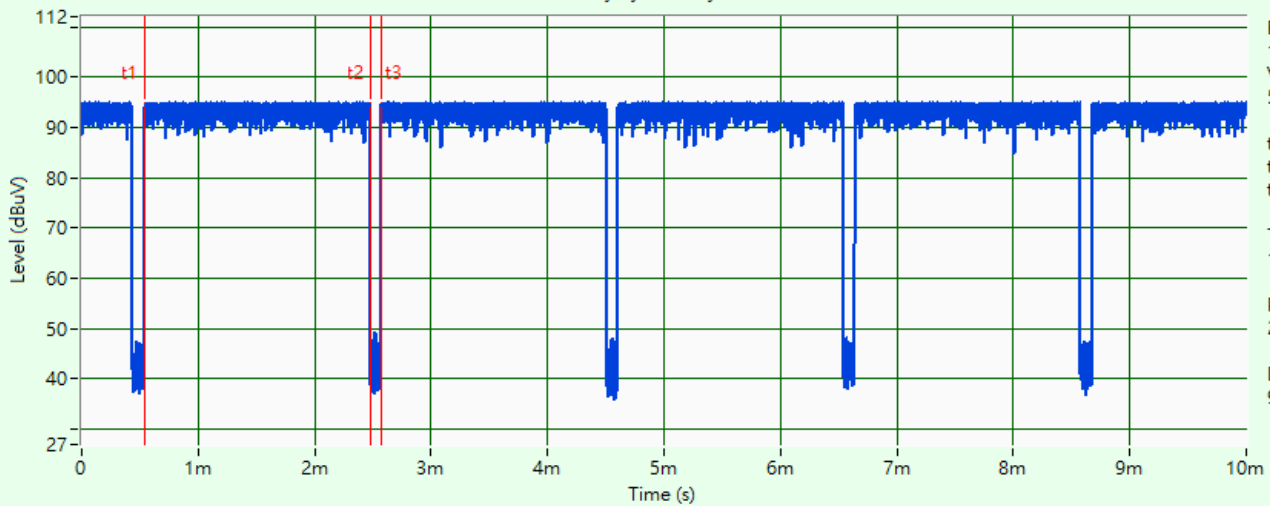
802.11n (HT20)

Duty Cycle Analysis



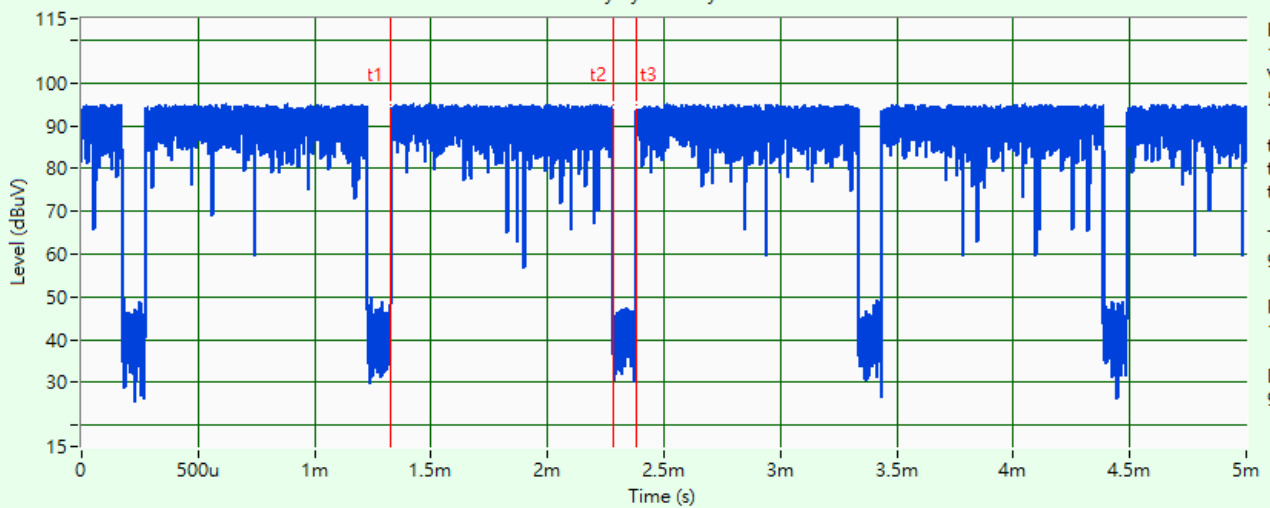
802.11n (HT40)

Duty Cycle Analysis



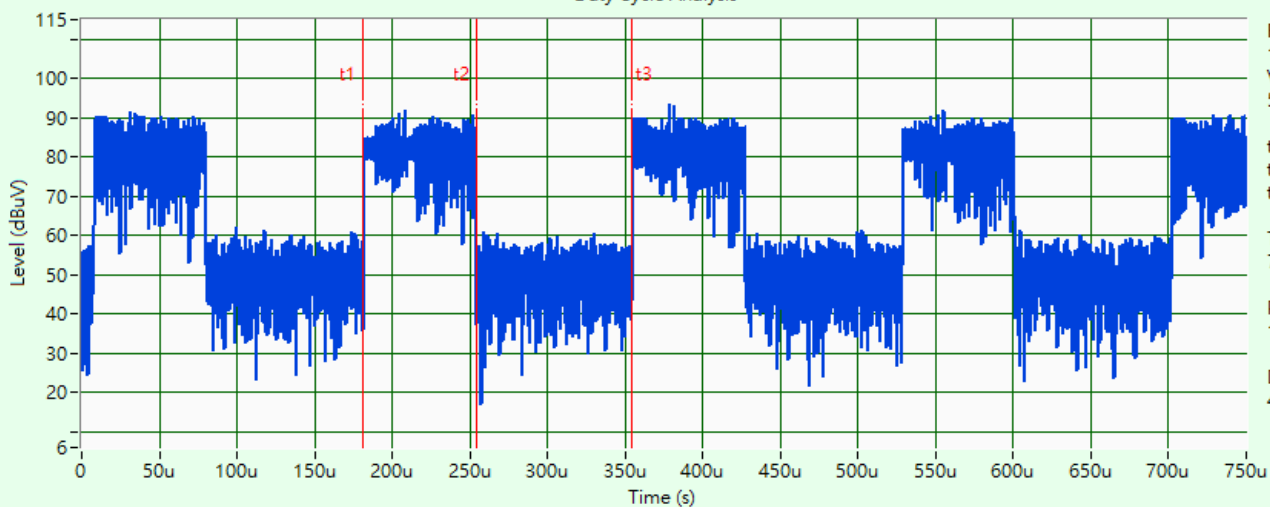
802.11ac (VHT20)

Duty Cycle Analysis



802.11ac (VHT40)

Duty Cycle Analysis



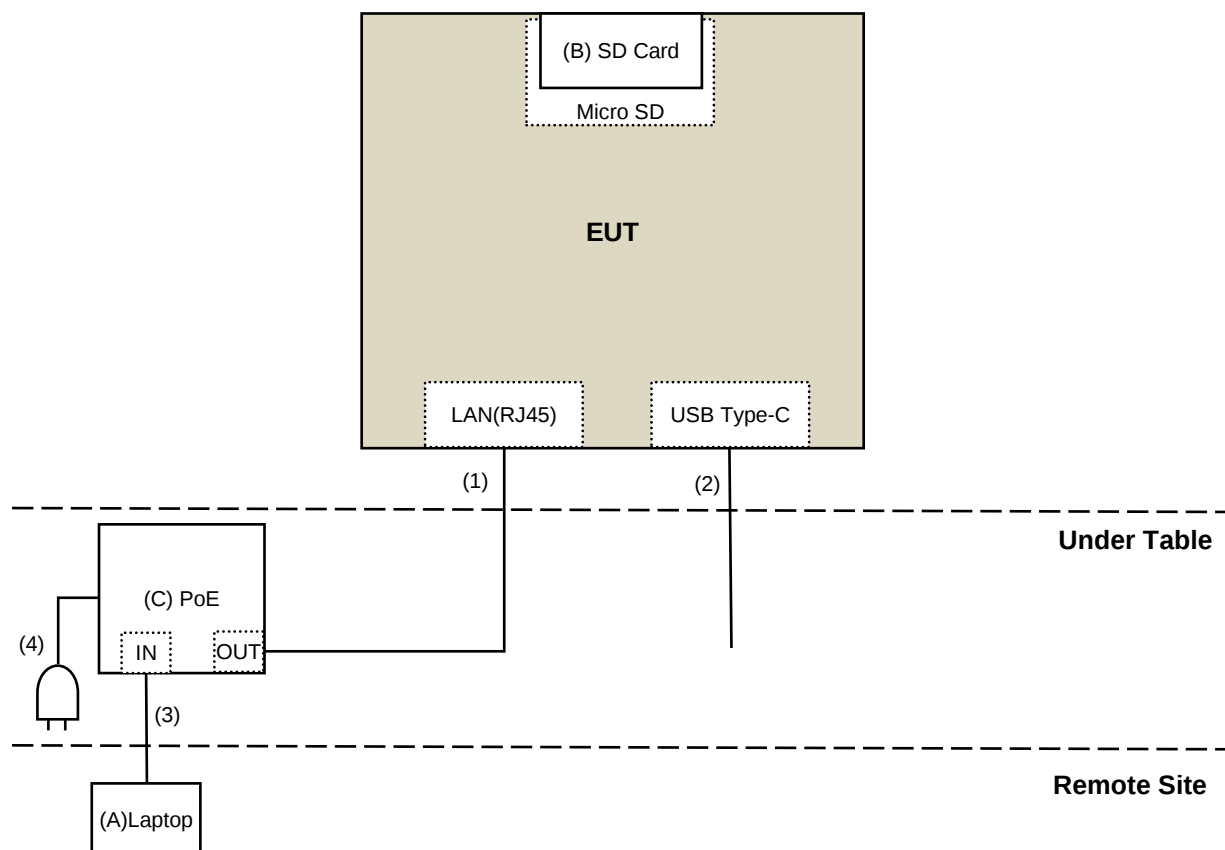
802.11ac (VHT80)

3.6 Test Program Used and Operation Descriptions

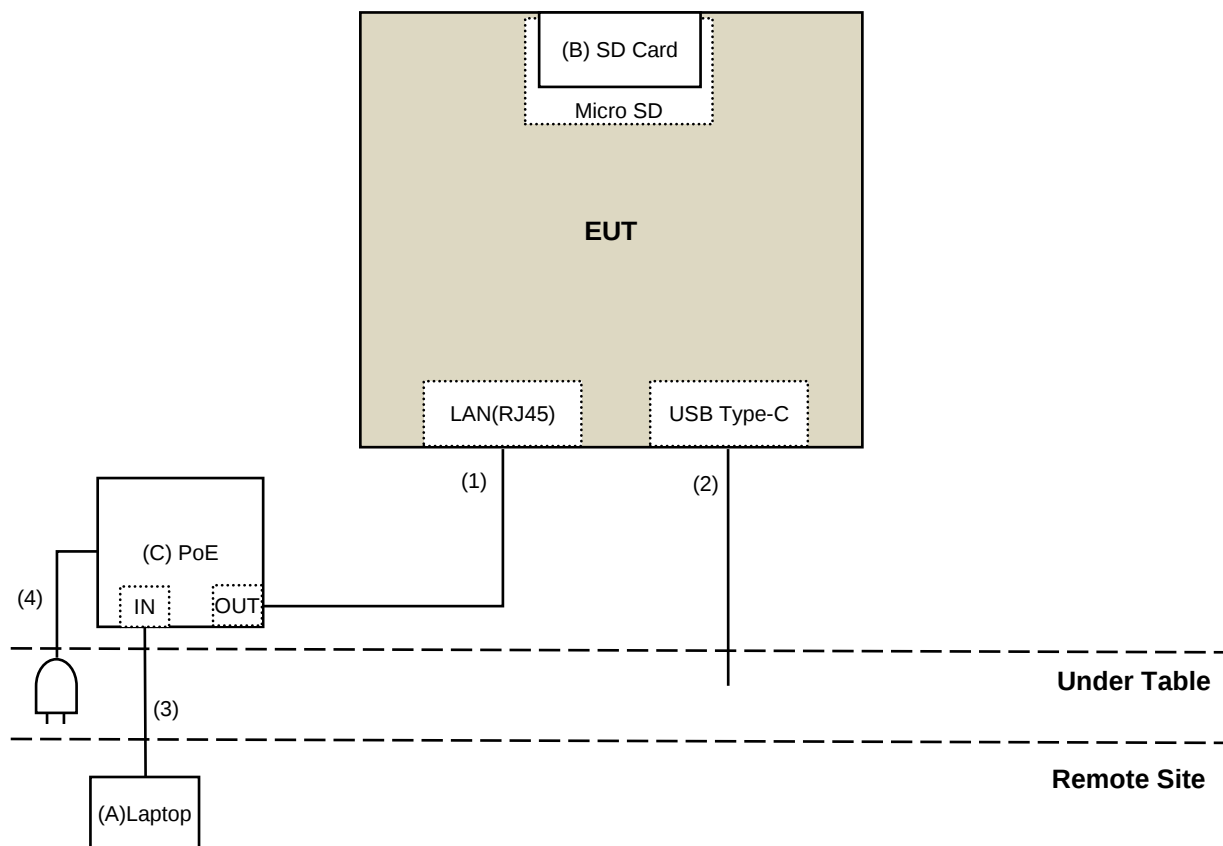
Controlling software (HyperTerminal paste 3. FLEX RF command 0815. xlsx command) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For AC Power Conducted Emission test



For Unwanted Emission test



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
B	SD Card	Western Digital	512G	N/A	N/A	Supplied by applicant
C	PoE	PHIHONG	POE15M-1AFE	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ45-Cable	0	2	No	0	Provided by Lab
2	Type-C Cable	0	1	Yes	0	Provided by Lab
3	RJ45-Cable	0	10	No	0	Provided by Lab
4	AC Cable	0	0.5	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 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/10/3

4.2 Power Spectral Density

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 R&S	FSV40	101516	2022/3/7	2023/3/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/10/3

4.3 6 dB Bandwidth

Refer to section 4.2 to get information of the instruments.

4.4 Occupied Bandwidth

Refer to section 4.2 to get information of the instruments.

4.5 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
DC POWER SUPPLY Topward	6603D	795558	N/A	N/A
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/1/14	2023/1/13
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: 2022/10/3

4.6 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohms Terminator	50	3	2021/10/27	2022/10/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
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	2021/10/13	2022/10/12

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2022/10/6

4.7 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bilog Antenna Schwarzbeck	VULB 9168	9168-0842	2021/10/26	2022/10/25
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2022/1/10	2023/1/9
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	980538	2022/4/25	2023/4/24
RF Coaxial Cable COMMATE/PEWC	8D	966-5-1	2022/4/25	2023/4/24
		966-5-2	2022/4/25	2023/4/24
		966-5-3	2022/4/25	2023/4/24
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
		LOOPCAB-002	2022/1/6	2023/1/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2022/3/13	2023/3/12
Test Receiver R&S	ESR3	102528	2022/2/25	2023/2/24

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2022/10/6

4.8 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-1819	2021/11/14	2022/11/13
	BBHA 9170	9170-739	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980509	2022/4/25	2023/4/24
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
	EMC104-SM-SM-1500	180503	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180501	2022/4/25	2023/4/24
	EMC104-SM-SM-6000	180506	2022/4/25	2023/4/24
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2022/3/13	2023/3/12
Test Receiver R&S	ESR3	102528	2022/2/25	2023/2/24

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2022/9/7 ~ 2022/10/7

5 Limits of Test Items

5.1 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	250 mW (24 dBm)

Operation Band	Limit
U-NII-3	1 Watt (30 dBm)

5.2 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-3	30 dBm/ 500 kHz

5.3 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.

5.4 Occupied Bandwidth

The results are for reference only.

5.5 Frequency Stability

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

5.6 AC Power Conducted Emissions

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

Notes:

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

5.7 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.8 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2 (dBμV/m) ^{*1} PK: 105.2 (dBμV/m) ^{*2} PK: 110.8 (dBμV/m) ^{*3} PK: 122.2 (dBμV/m) ^{*4}
^{*1} beyond 75 MHz or more above of the band edge. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

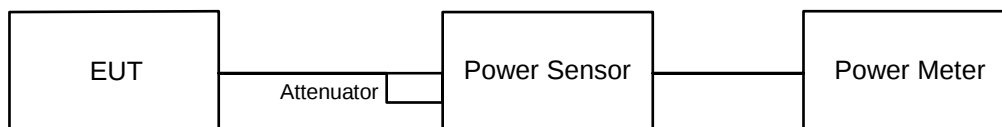
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

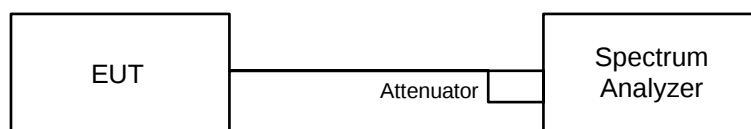


6.1.2 Test Procedure

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.

6.2 Power Spectral Density

6.2.1 Test Setup



6.2.2 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 $10 \log (1/\text{duty cycle})$.

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 $\text{BWCF} = 10 \log (500 \text{ kHz} / 300 \text{ kHz})$

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

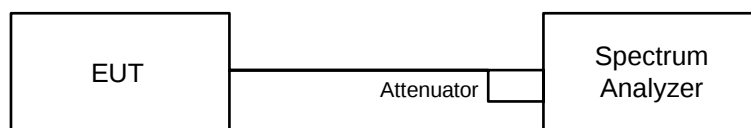
For specified measurement bandwidth 500 kHz:

Method SA-2

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

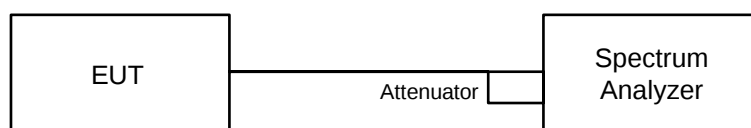


6.3.2 Test Procedure

- 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.

6.4 Occupied Bandwidth

6.4.1 Test Setup

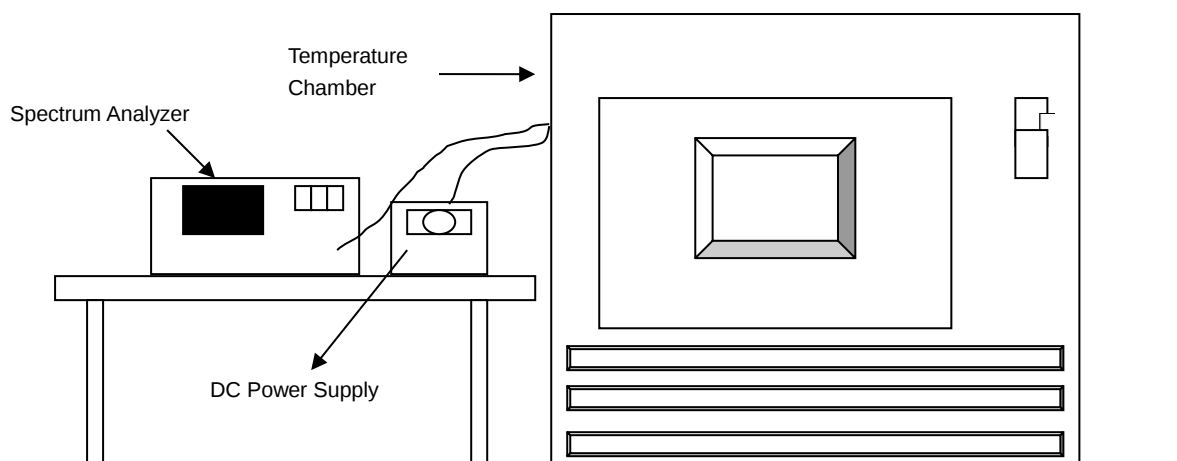
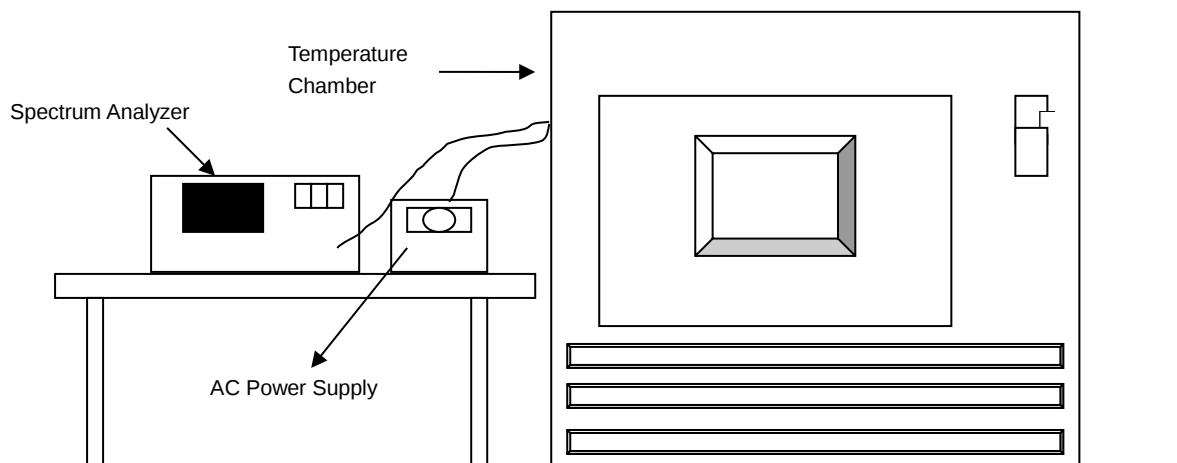


6.4.2 Test Procedure

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.

6.5 Frequency Stability

6.5.1 Test Setup

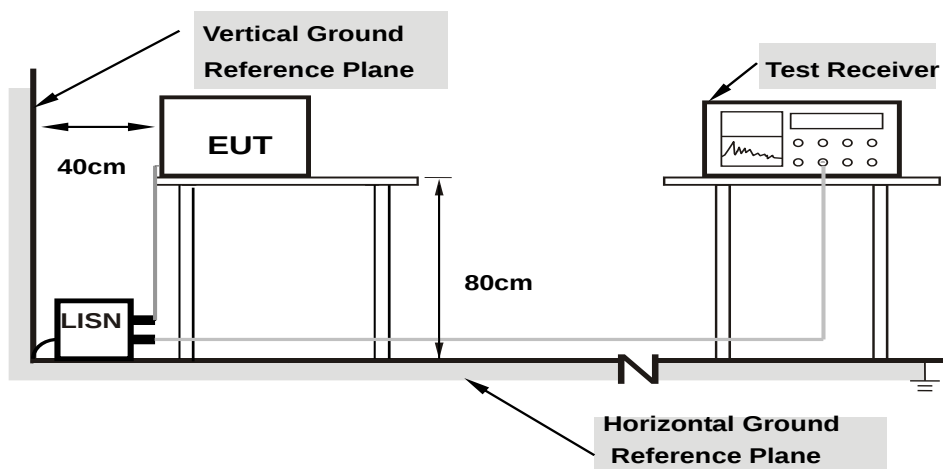


6.5.2 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- The EUT was placed inside the environmental test chamber and powered by nominal DC 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.

6.6 AC Power Conducted Emissions

6.6.1 Test Setup



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

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

6.6.2 Test Procedure

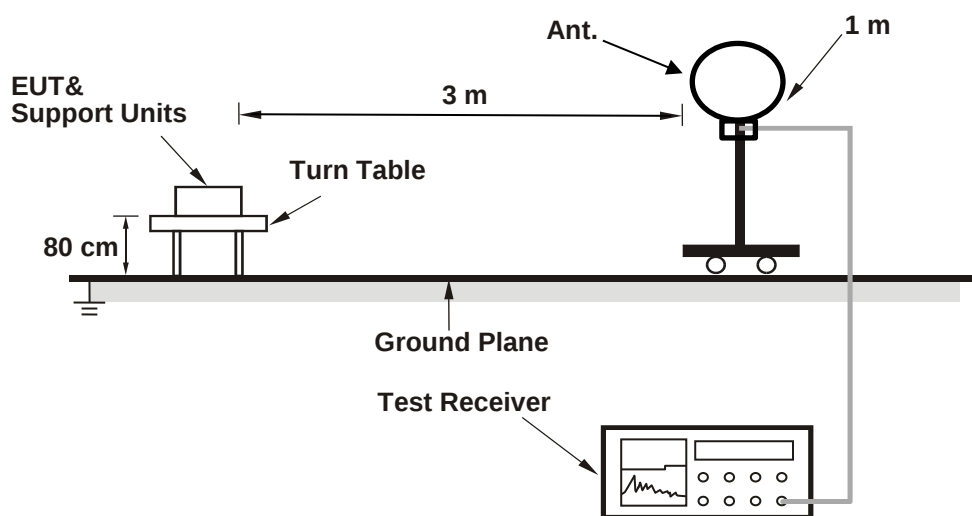
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

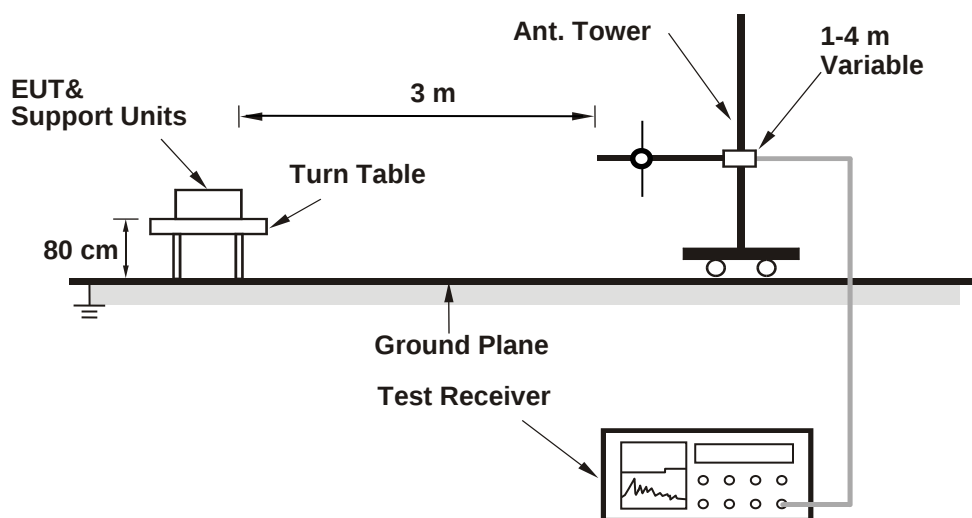
6.7 Unwanted Emissions below 1 GHz

6.7.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.7.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

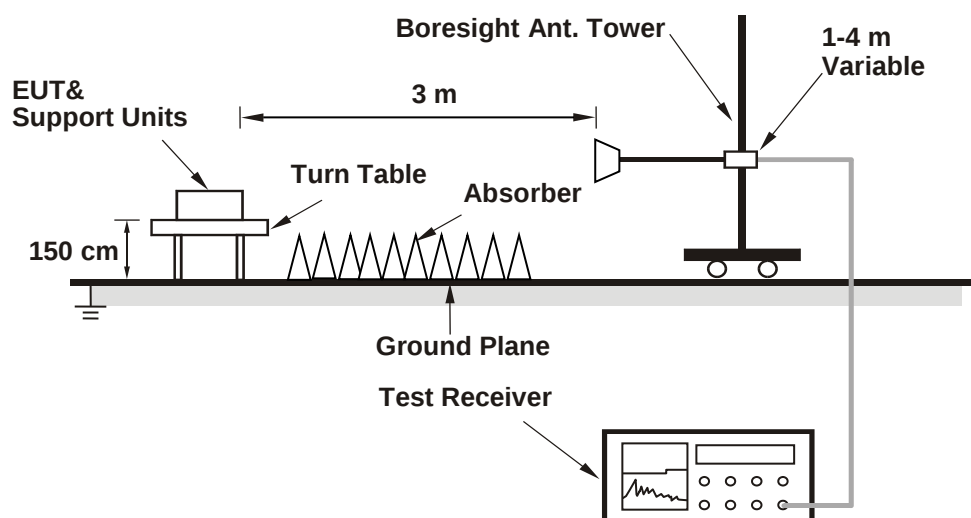
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.8 Unwanted Emissions above 1 GHz

6.8.1 Test Setup



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

6.8.2 Test Procedure

- 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 RF Output Power

Input Power:	56 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chilin Lee
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802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	30.62	14.86	24	Pass
40	5200	27.04	14.32	24	Pass
48	5240	30.549	14.85	24	Pass
149	5745	26.669	14.26	30	Pass
157	5785	28.642	14.57	30	Pass
165	5825	28.379	14.53	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	27.542	14.40	24	Pass
40	5200	27.007	14.31	24	Pass
48	5240	27.29	14.36	24	Pass
149	5745	26.55	14.24	30	Pass
157	5785	29.235	14.66	30	Pass
165	5825	28.041	14.48	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
38	5190	20.464	13.11	24	Pass
46	5230	21.827	13.39	24	Pass
151	5755	23.604	13.73	30	Pass
159	5795	23.377	13.69	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	22.491	13.52	24	Pass
40	5200	22.029	13.43	24	Pass
48	5240	23.174	13.65	24	Pass
149	5745	17.865	12.52	30	Pass
157	5785	19.32	12.86	30	Pass
165	5825	19.099	12.81	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
38	5190	21.429	13.31	24	Pass
46	5230	21.577	13.34	24	Pass
151	5755	17.022	12.31	30	Pass
159	5795	17.824	12.51	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
42	5210	15.241	11.83	24	Pass
155	5775	9.506	9.78	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	56 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chilin Lee
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802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	3.18	11.00	Pass
40	5200	3.08	11.00	Pass
48	5240	3.22	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	2.37	0.16	2.53	11.00	Pass
40	5200	2.55	0.16	2.71	11.00	Pass
48	5240	2.53	0.16	2.69	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
38	5190	-2.20	0.29	-1.91	11.00	Pass
46	5230	-2.06	0.29	-1.77	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	1.40	0.22	1.62	11.00	Pass
40	5200	1.33	0.22	1.55	11.00	Pass
48	5240	1.34	0.22	1.56	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
38	5190	-2.05	0.43	-1.62	11.00	Pass
46	5230	-2.13	0.43	-1.70	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
42	5210	-9.52	3.75	-5.77	11.00	Pass

Note: For U-NII-1, the antenna gain is 3.57 dBi < 6dBi, so the power density limit shall not be reduced.

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
149	5745	-2.55	-0.33	30	Pass
157	5785	-2.64	-0.42	30	Pass
165	5825	-2.67	-0.45	30	Pass

Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
149	5745	-3.14	0.16	-0.76	30	Pass
157	5785	-3.72	0.16	-1.34	30	Pass
165	5825	-3.72	0.16	-1.34	30	Pass

Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
151	5755	-7.87	0.29	-5.36	30	Pass
159	5795	-8.34	0.29	-5.83	30	Pass

Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
149	5745	-4.46	0.22	-2.02	30	Pass
157	5785	-4.66	0.22	-2.22	30	Pass
165	5825	-4.52	0.22	-2.08	30	Pass

Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
151	5755	-8.26	0.43	-5.61	30	Pass
159	5795	-8.47	0.43	-5.82	30	Pass

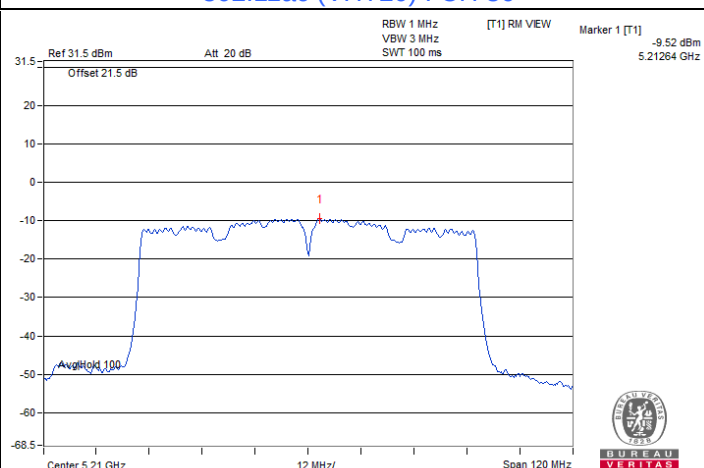
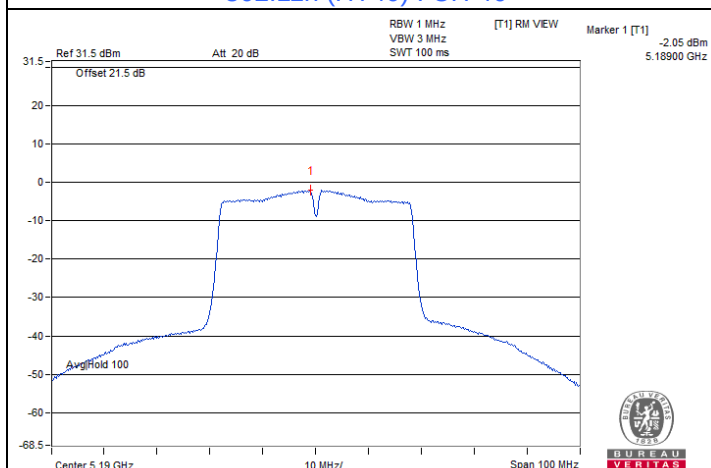
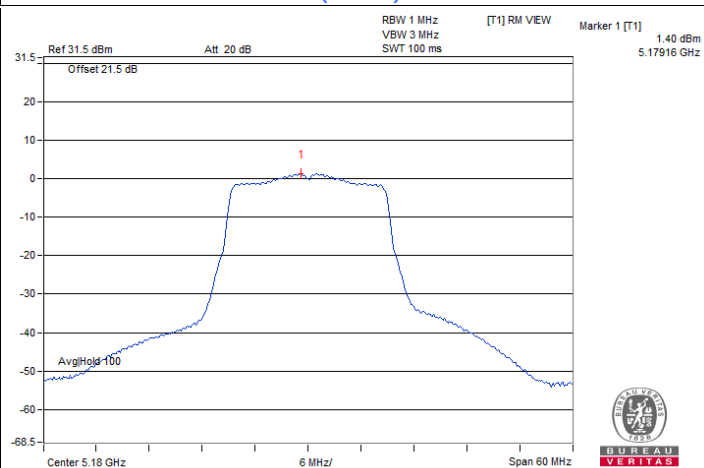
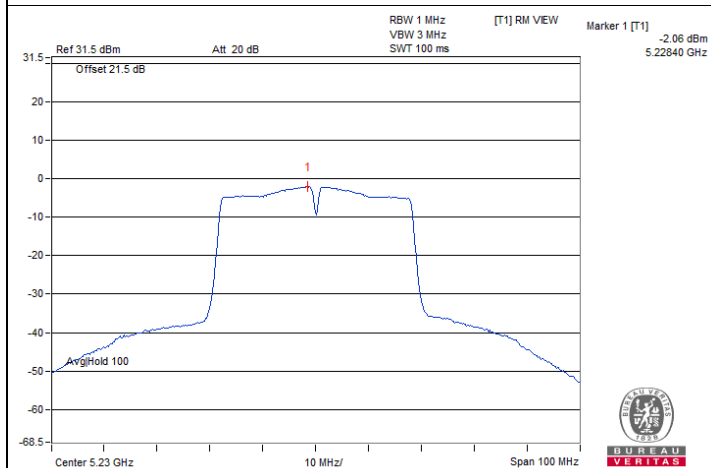
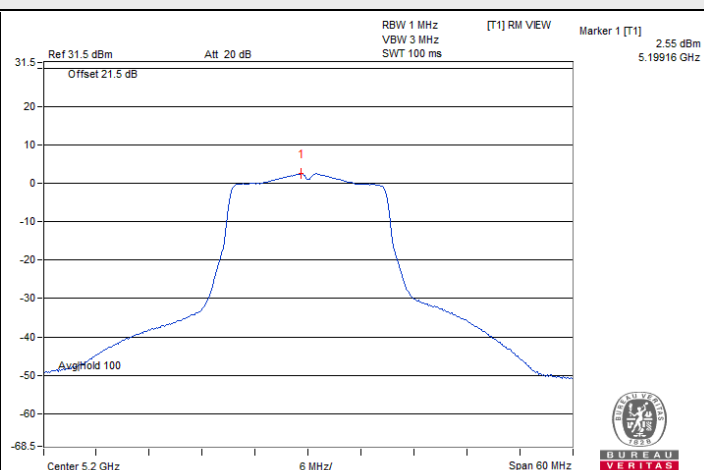
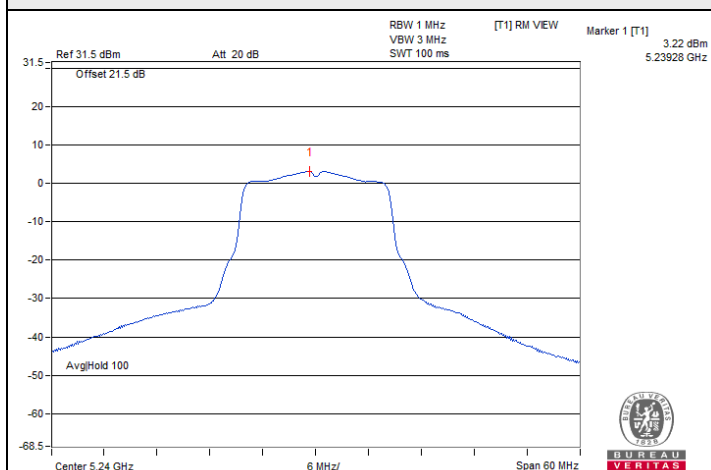
Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ac (VHT80)

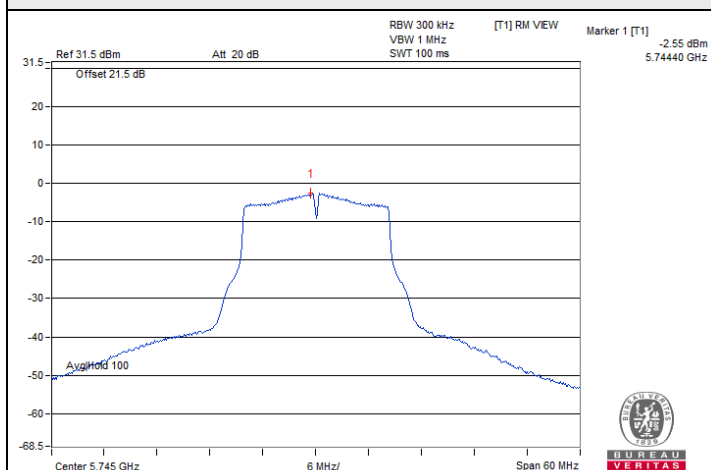
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
155	5775	-14.76	3.75	-8.79	30	Pass

Note: For U-NII-3, the antenna gain is 3.57 dBi < 6 dBi, so the power density limit shall not be reduced.

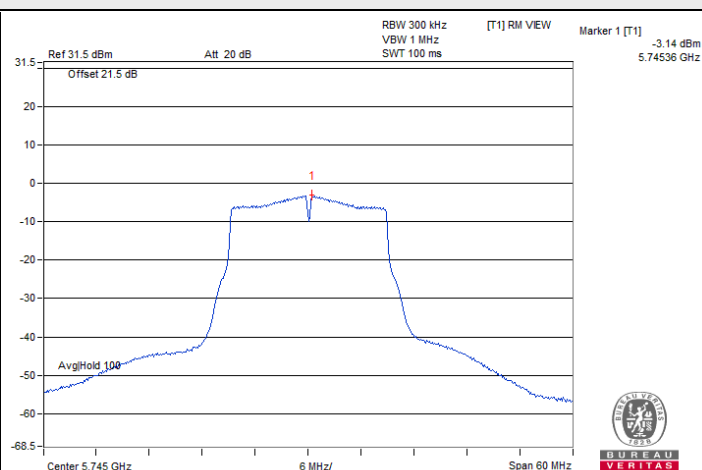
Spectrum Plot of Maximum Value



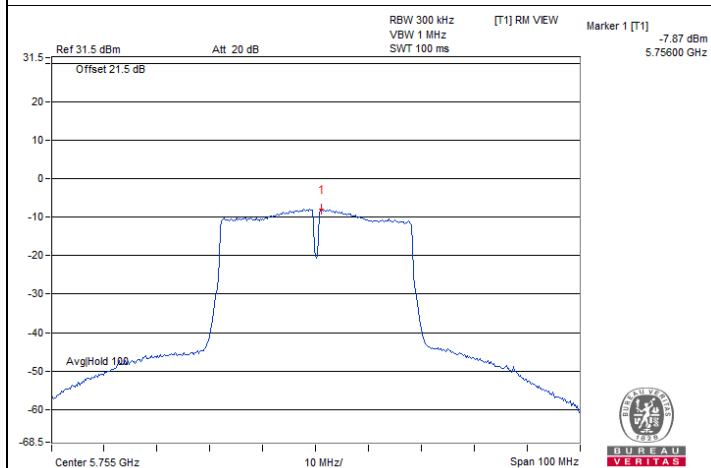
Spectrum Plot of Maximum Value



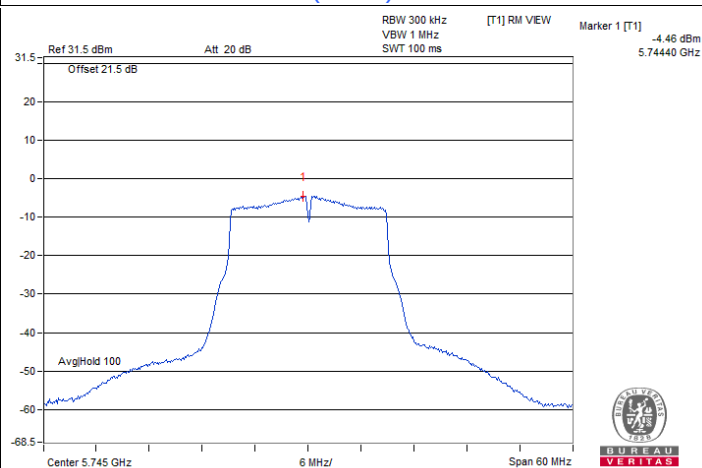
802.11a : CH 149



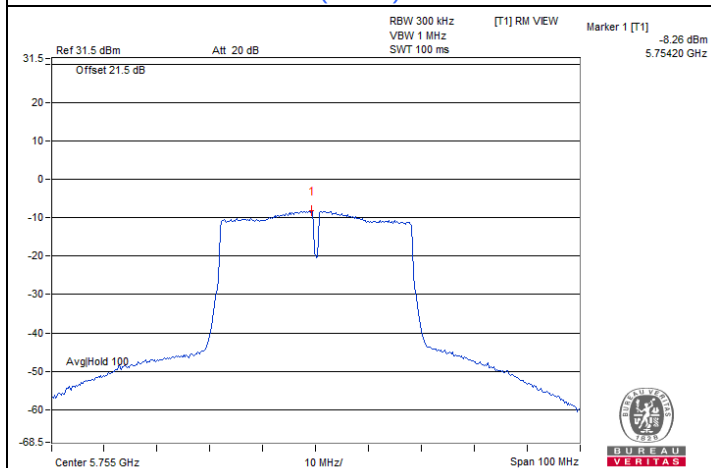
802.11n (HT20) : CH 149



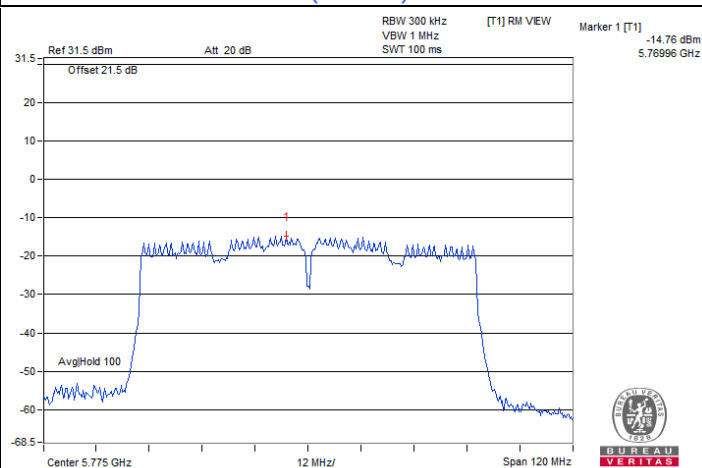
802.11n (HT40) : CH 151



802.11ac (VHT20) : CH 149



802.11ac (VHT40) : CH 151



802.11ac (VHT80) : CH 155

7.3 6 dB Bandwidth

Input Power:	56 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chilin Lee
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802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	16.32	0.5	Pass
157	5785	16.32	0.5	Pass
165	5825	16.34	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	16.92	0.5	Pass
157	5785	17.54	0.5	Pass
165	5825	17.05	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
151	5755	35.74	0.5	Pass
159	5795	35.47	0.5	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	16.91	0.5	Pass
157	5785	17.14	0.5	Pass
165	5825	17.04	0.5	Pass

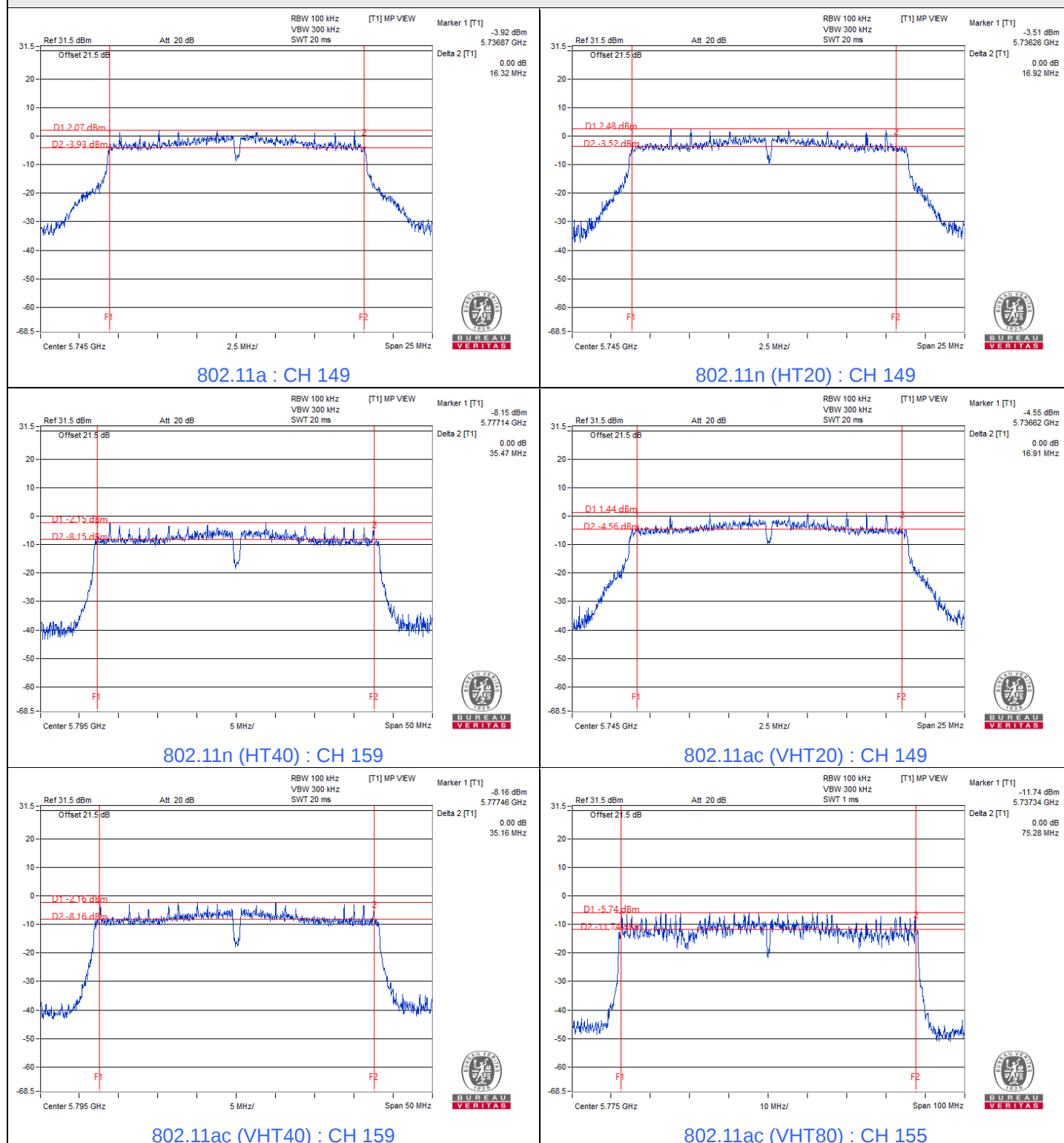
802.11ac (VHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
151	5755	35.64	0.5	Pass
159	5795	35.16	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
155	5775	75.28	0.5	Pass

Spectrum Plot of Minimum Value



Notes:

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

7.4 Occupied Bandwidth

Input Power:	56 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chilin Lee
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.74
40	5200	16.8
48	5240	16.74
149	5745	16.62
157	5785	16.74
165	5825	16.74

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.88
40	5200	17.82
48	5240	17.76
149	5745	17.82
157	5785	17.94
165	5825	17.82

802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.3
46	5230	36.36
151	5755	36.48
159	5795	36.3

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.82
40	5200	17.82
48	5240	17.88
149	5745	17.76
157	5785	17.76
165	5825	17.88

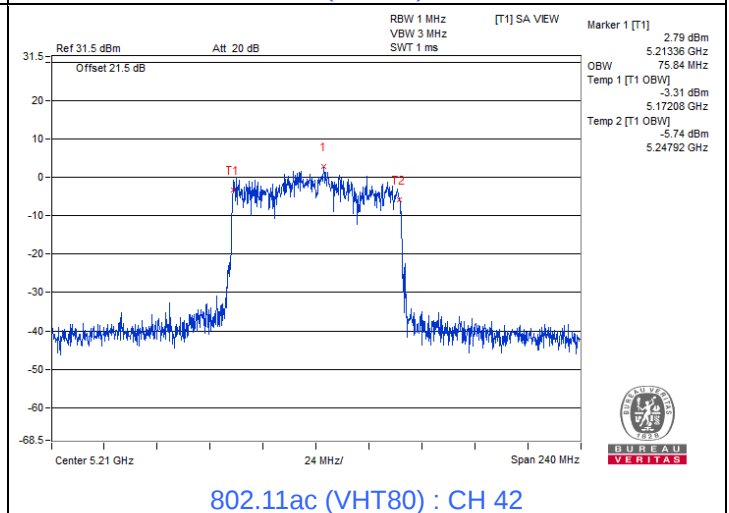
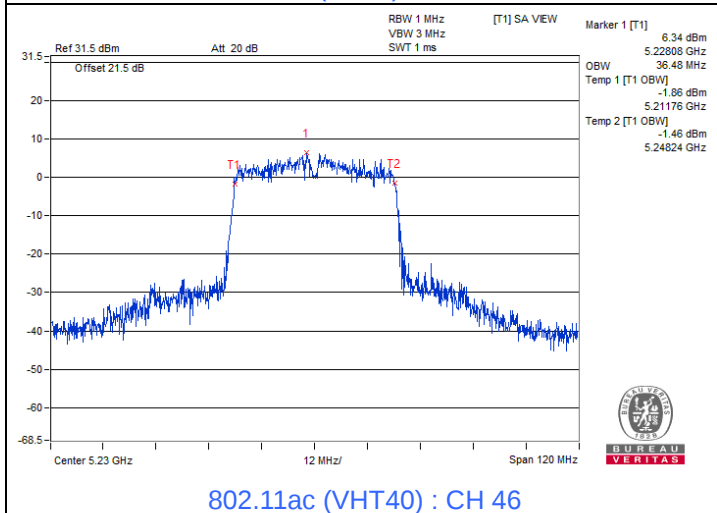
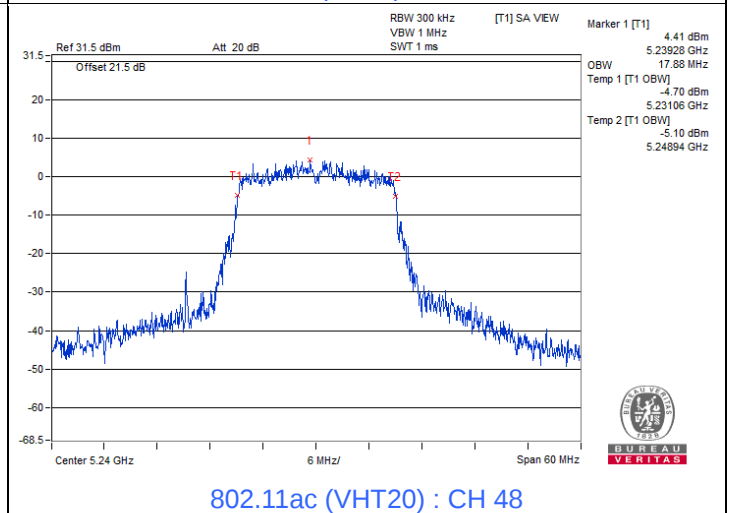
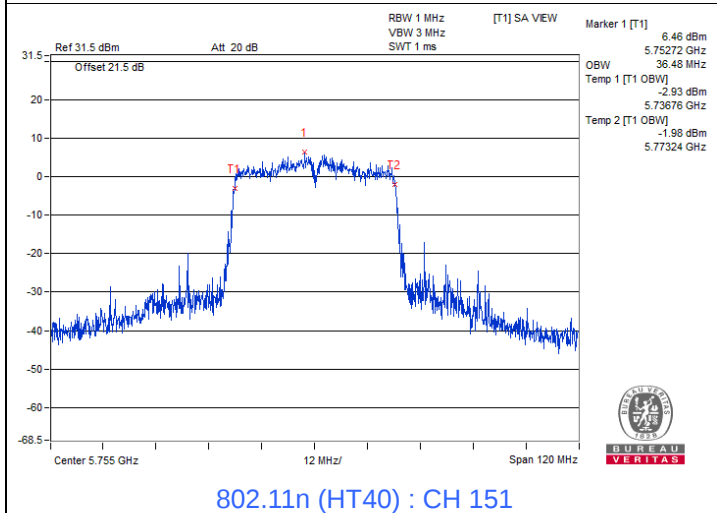
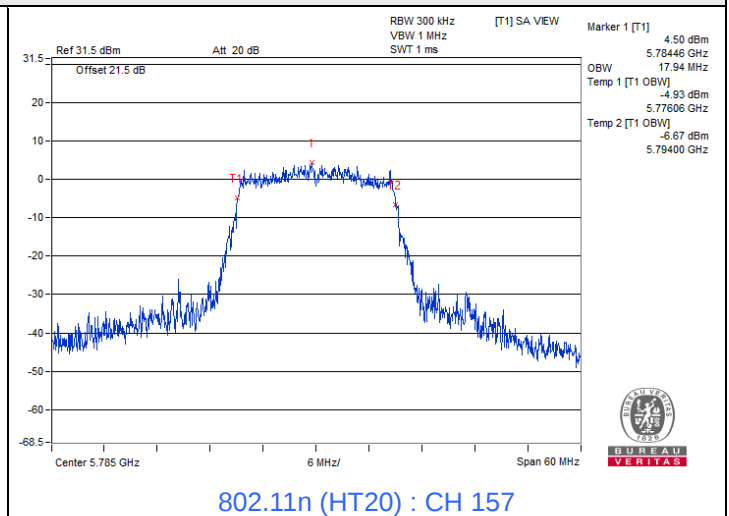
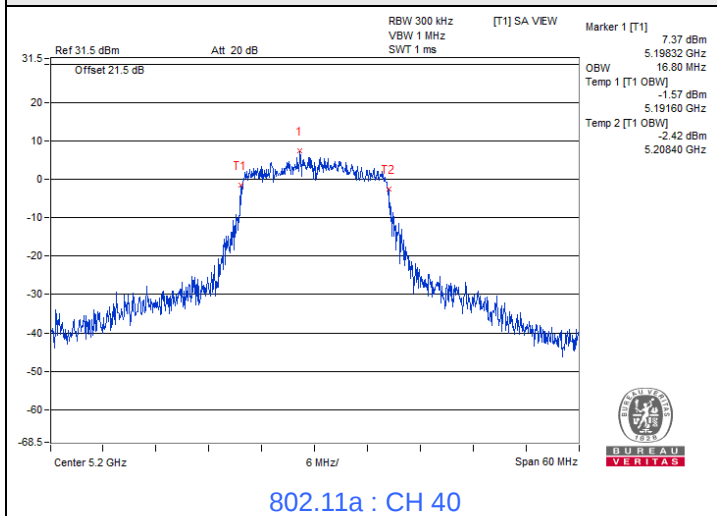
802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.18
46	5230	36.48
151	5755	36.36
159	5795	36.3

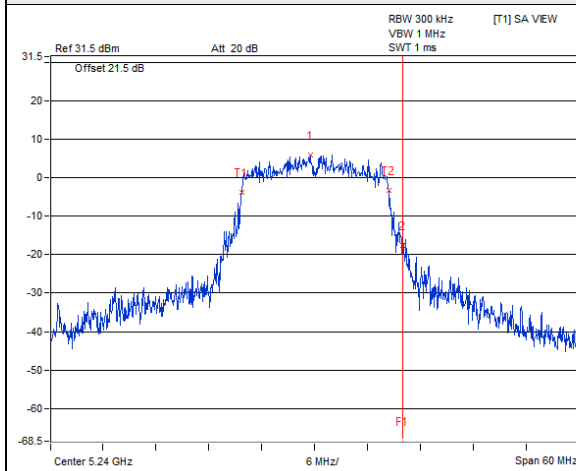
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	75.84
155	5775	75.84

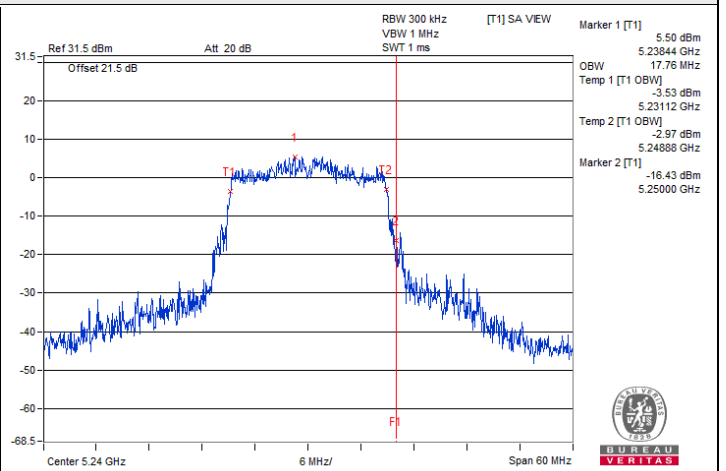
Spectrum Plot of Maximum Value



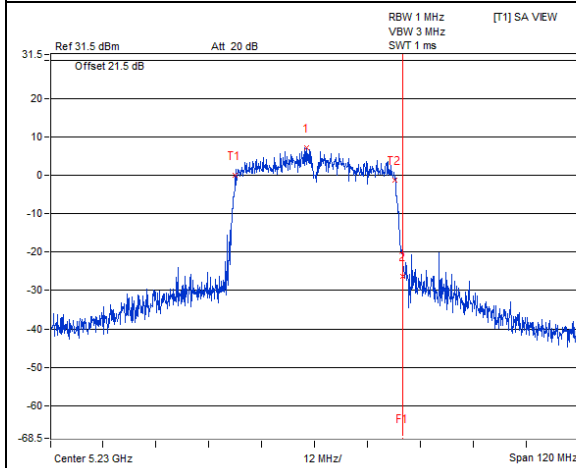
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



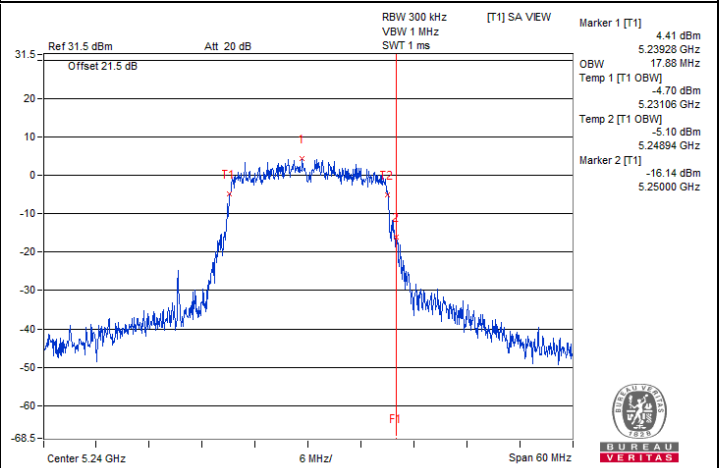
802.11a : CH 48



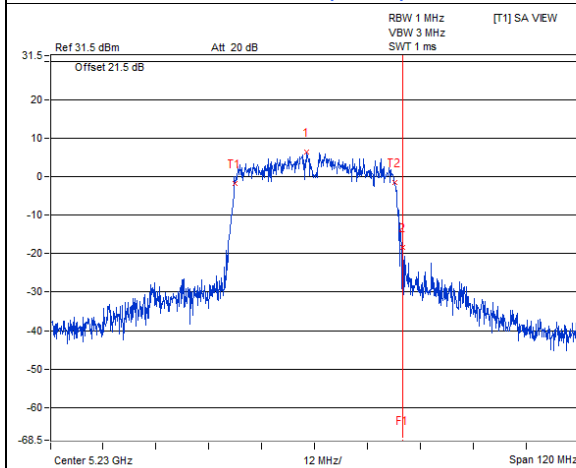
802.11n (HT20) : CH 48



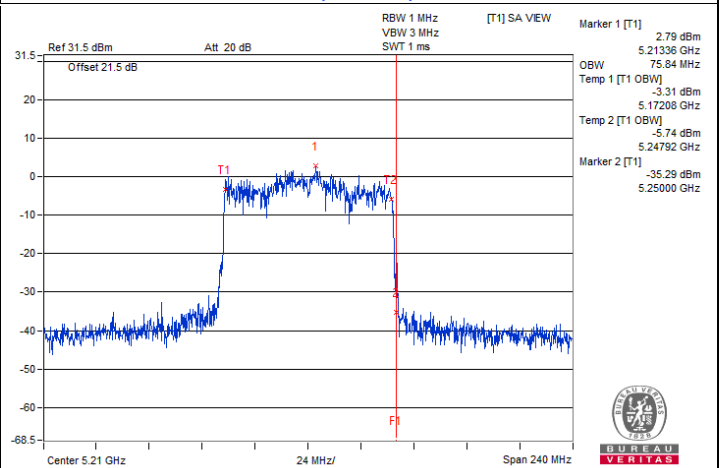
802.11n (HT40) : CH 46



802.11ac (VHT20) : CH 48

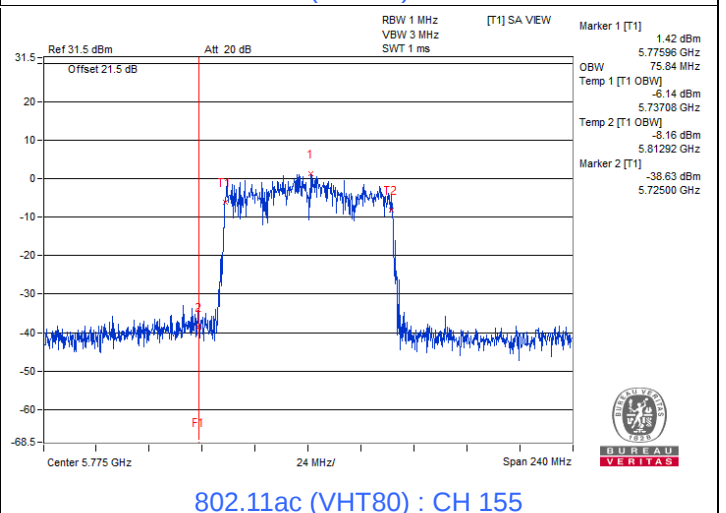
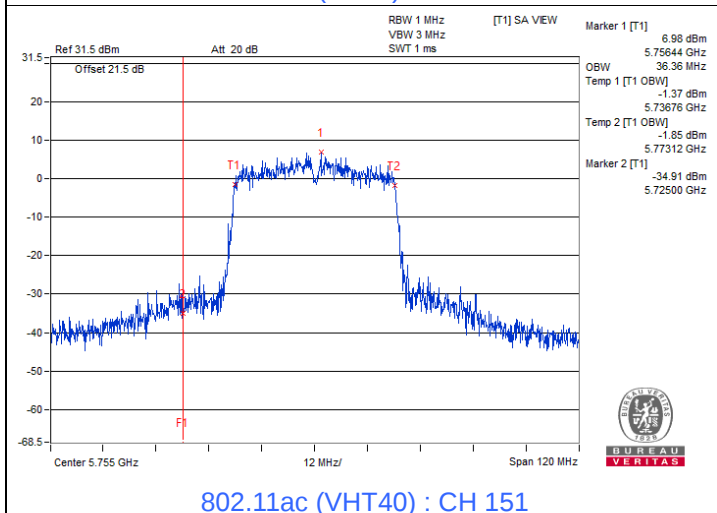
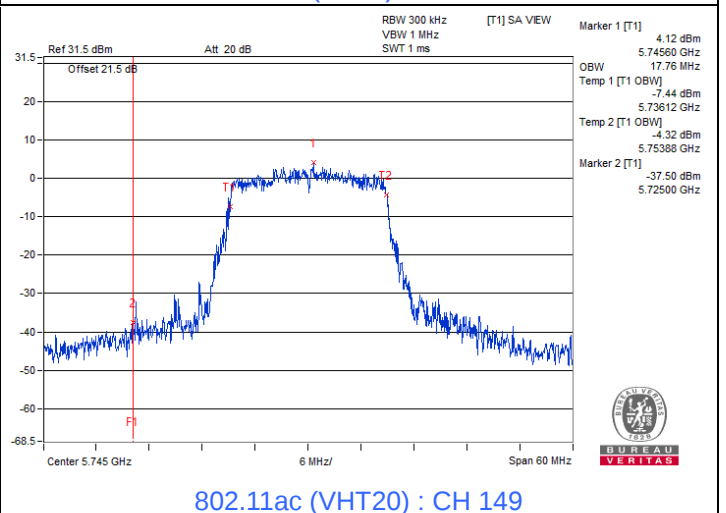
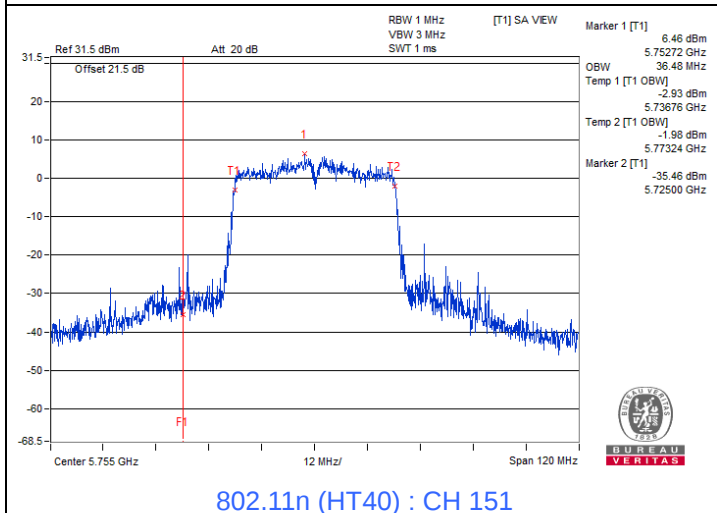
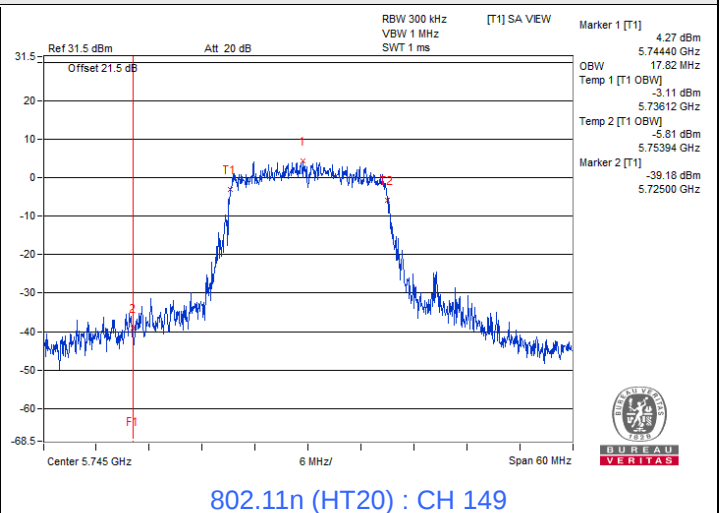
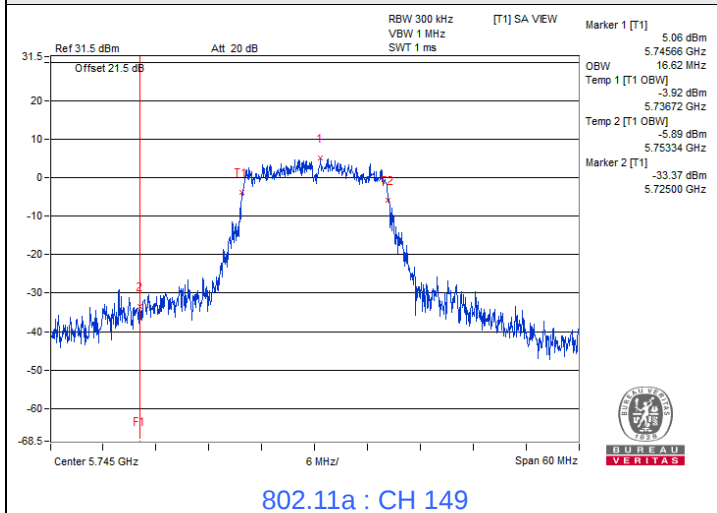


802.11ac (VHT40) : CH 46



802.11ac (VHT80) : CH 42

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



7.5 Frequency Stability

Input Power:	56 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chilin Lee
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802.11a

Frequency Stability Versus Temperature									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	56	5180.0062	Pass	5180.0037	Pass	5180.0057	Pass	5180.0047	Pass
30	56	5179.9774	Pass	5179.9784	Pass	5179.9767	Pass	5179.9767	Pass
20	56	5180.0249	Pass	5180.0263	Pass	5180.0233	Pass	5180.0246	Pass
10	56	5180.0211	Pass	5180.0229	Pass	5180.0215	Pass	5180.0219	Pass
0	56	5179.9862	Pass	5179.9859	Pass	5179.9853	Pass	5179.9812	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	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	64.4	5180.0115	Pass	5180.0124	Pass	5180.0124	Pass	5180.0123	Pass
	56	5180.0211	Pass	5180.0229	Pass	5180.0215	Pass	5180.0219	Pass
	47.6	5180.029	Pass	5180.0283	Pass	5180.029	Pass	5180.0268	Pass

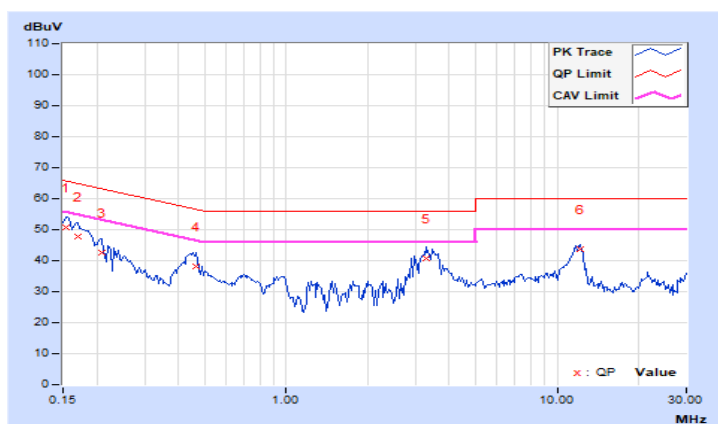
7.6 AC Power Conducted Emissions

RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 68% RH
Tested By	Sampson Chen		

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	0.15391	9.96	40.87	27.82	50.83	37.78	65.79	55.79	-14.96	-18.01
2	0.16953	9.96	37.74	24.05	47.70	34.01	64.98	54.98	-17.28	-20.97
3	0.20859	9.96	32.65	19.48	42.61	29.44	63.26	53.26	-20.65	-23.82
4	0.46250	9.97	28.32	20.38	38.29	30.35	56.65	46.65	-18.36	-16.30
5	3.27344	10.11	30.53	21.46	40.64	31.57	56.00	46.00	-15.36	-14.43
6	12.19922	10.63	33.14	28.30	43.77	38.93	60.00	50.00	-16.23	-11.07

Remarks:

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

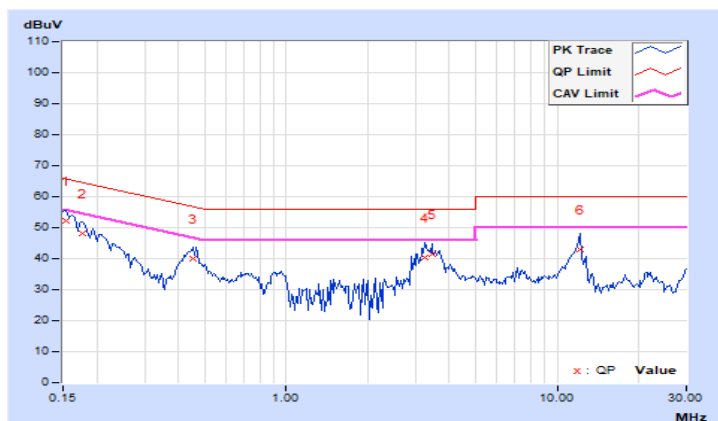


RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 68% RH
Tested By	Sampson Chen		

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	0.15391	9.93	42.38	28.88	52.31	38.81	65.79	55.79	-13.48	-16.98
2	0.17734	9.94	38.27	25.09	48.21	35.03	64.61	54.61	-16.40	-19.58
3	0.45469	9.94	30.18	23.20	40.12	33.14	56.79	46.79	-16.67	-13.65
4	3.24609	10.07	30.44	21.39	40.51	31.46	56.00	46.00	-15.49	-14.54
5	3.45703	10.08	31.45	22.26	41.53	32.34	56.00	46.00	-14.47	-13.66
6	12.14063	10.47	32.38	26.89	42.85	37.36	60.00	50.00	-17.15	-12.64

Remarks:

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



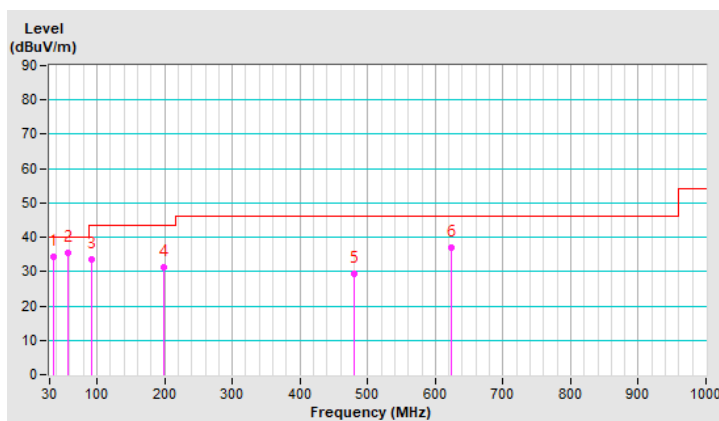
7.7 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Louis 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	35.48	34.1 QP	40.0	-5.9	1.00 H	260	47.7	-13.6
2	57.69	35.3 QP	40.0	-4.7	1.00 H	282	48.6	-13.3
3	93.00	33.5 QP	43.5	-10.0	2.00 H	269	51.8	-18.3
4	198.89	31.3 QP	43.5	-12.2	1.50 H	178	47.4	-16.1
5	480.01	29.4 QP	46.0	-16.6	1.50 H	154	37.2	-7.8
6	624.01	36.8 QP	46.0	-9.2	1.00 H	190	41.6	-4.8

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.

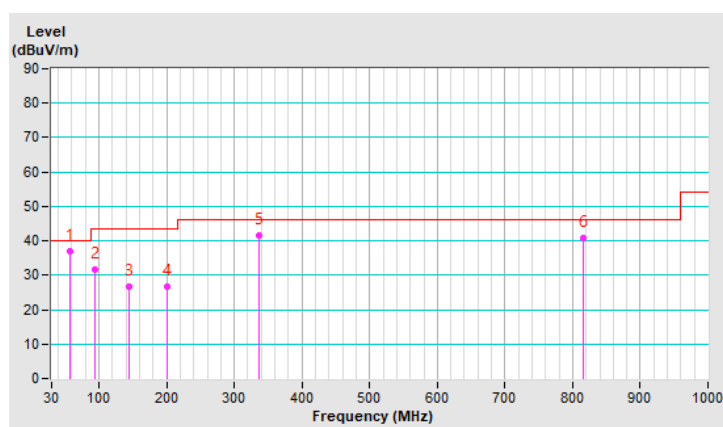


RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Louis Yang		

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	56.87	37.0 QP	40.0	-3.0	1.00 V	322	50.2	-13.2
2	93.15	31.7 QP	43.5	-11.8	2.00 V	231	50.0	-18.3
3	143.98	26.8 QP	43.5	-16.7	1.00 V	335	39.6	-12.8
4	199.86	26.6 QP	43.5	-16.9	1.00 V	247	42.7	-16.1
5	336.00	41.6 QP	46.0	-4.4	1.50 V	176	52.8	-11.2
6	816.03	40.7 QP	46.0	-5.3	1.00 V	159	42.8	-2.1

Remarks:

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



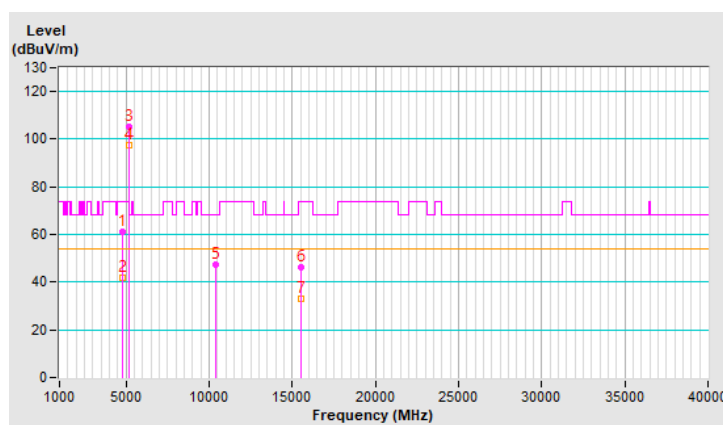
7.8 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	4788.02	61.0 PK	74.0	-13.0	1.30 H	95	59.5	1.5
2	4788.02	41.7 AV	54.0	-12.3	1.30 H	95	40.2	1.5
3	*5180.00	105.1 PK			1.30 H	95	102.9	2.2
4	*5180.00	97.4 AV			1.30 H	95	95.2	2.2
5	#10360.00	47.2 PK	68.2	-21.0	1.66 H	151	35.5	11.7
6	15540.00	46.2 PK	74.0	-27.8	2.21 H	268	34.4	11.8
7	15540.00	33.2 AV	54.0	-20.8	2.21 H	268	21.4	11.8

Remarks:

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

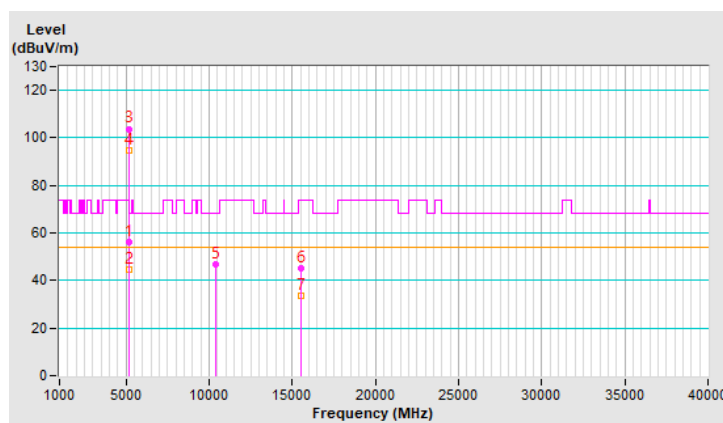


RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	56.1 PK	74.0	-17.9	2.15 V	27	53.7	2.4
2	5150.00	44.4 AV	54.0	-9.6	2.15 V	27	42.0	2.4
3	*5180.00	103.8 PK			2.15 V	27	101.6	2.2
4	*5180.00	94.8 AV			2.15 V	27	92.6	2.2
5	#10360.00	46.9 PK	68.2	-21.3	1.17 V	344	35.2	11.7
6	15540.00	45.2 PK	74.0	-28.8	4.00 V	249	33.4	11.8
7	15540.00	33.5 AV	54.0	-20.5	4.00 V	249	21.7	11.8

Remarks:

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

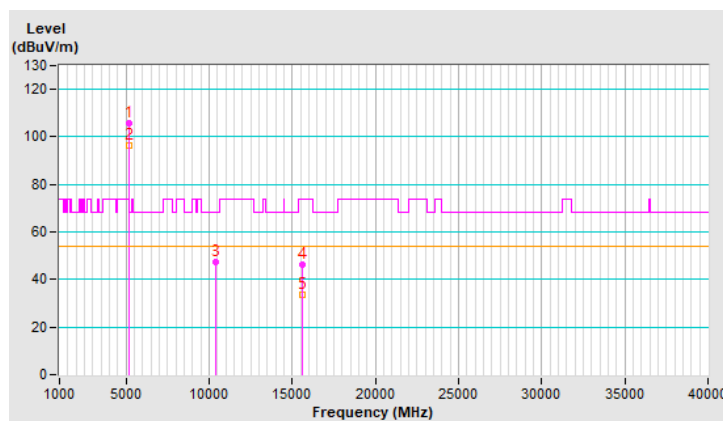


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	105.7 PK			1.24 H	94	103.6	2.1
2	*5200.00	96.5 AV			1.24 H	94	94.4	2.1
3	#10400.00	47.3 PK	68.2	-20.9	1.63 H	166	35.4	11.9
4	15600.00	46.0 PK	74.0	-28.0	2.25 H	281	34.5	11.5
5	15600.00	33.5 AV	54.0	-20.5	2.25 H	281	22.0	11.5

Remarks:

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

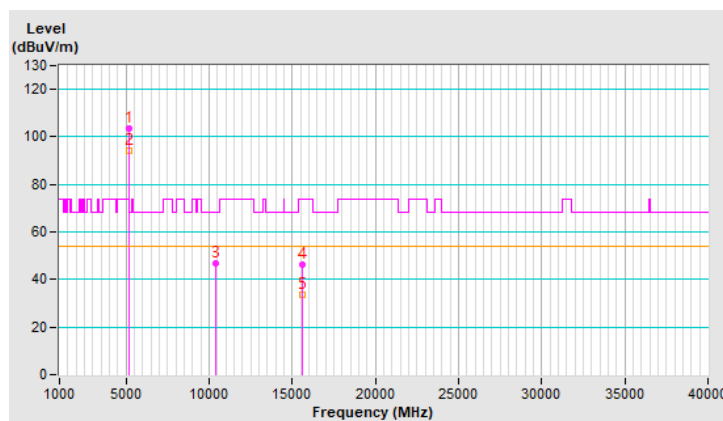


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	103.5 PK			2.14 V	35	101.4	2.1
2	*5200.00	94.4 AV			2.14 V	35	92.3	2.1
3	#10400.00	46.9 PK	68.2	-21.3	1.41 V	310	35.0	11.9
4	15600.00	46.2 PK	74.0	-27.8	1.90 V	1	34.7	11.5
5	15600.00	33.7 AV	54.0	-20.3	1.90 V	1	22.2	11.5

Remarks:

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

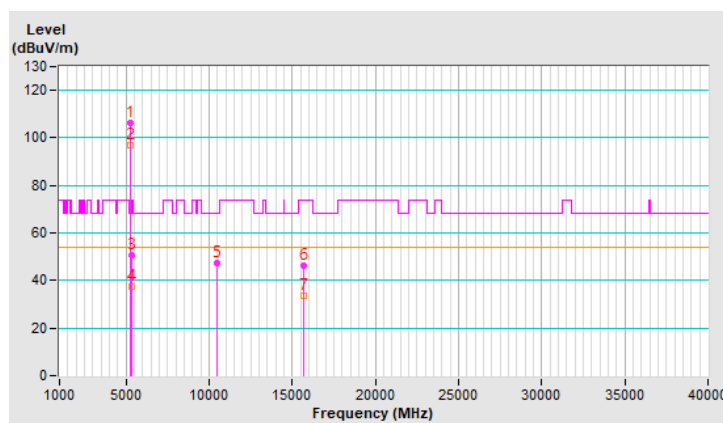


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	106.5 PK			1.15 H	92	104.6	1.9
2	*5240.00	97.1 AV			1.15 H	92	95.2	1.9
3	5350.00	50.6 PK	74.0	-23.4	1.15 H	92	48.6	2.0
4	5350.00	37.6 AV	54.0	-16.4	1.15 H	92	35.6	2.0
5	#10480.00	47.5 PK	68.2	-20.7	1.58 H	172	35.6	11.9
6	15720.00	46.2 PK	74.0	-27.8	2.24 H	296	34.5	11.7
7	15720.00	33.5 AV	54.0	-20.5	2.24 H	296	21.8	11.7

Remarks:

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

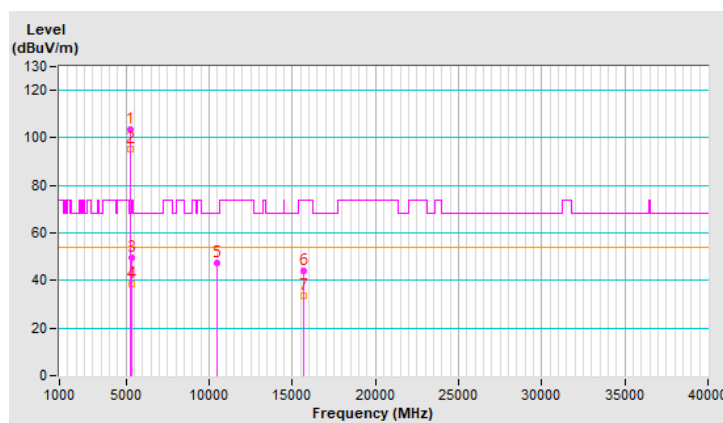


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	103.5 PK			2.20 V	25	101.6	1.9
2	*5240.00	95.5 AV			2.20 V	25	93.6	1.9
3	5350.00	49.6 PK	74.0	-24.4	2.20 V	25	47.6	2.0
4	5350.00	38.7 AV	54.0	-15.3	2.20 V	25	36.7	2.0
5	#10480.00	47.1 PK	68.2	-21.1	1.26 V	197	35.2	11.9
6	15720.00	44.1 PK	74.0	-29.9	1.44 V	141	32.4	11.7
7	15720.00	33.6 AV	54.0	-20.4	1.44 V	141	21.9	11.7

Remarks:

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

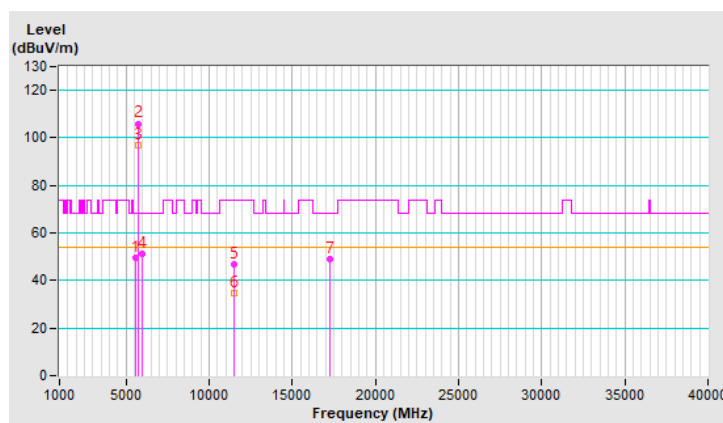


RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5599.33	49.8 PK	68.2	-18.4	1.17 H	95	47.6	2.2
2	*5745.00	106.0 PK			1.17 H	95	103.5	2.5
3	*5745.00	96.7 AV			1.17 H	95	94.2	2.5
4	#5962.66	51.3 PK	68.2	-16.9	1.17 H	95	48.4	2.9
5	11490.00	47.0 PK	74.0	-27.0	1.95 H	192	34.6	12.4
6	11490.00	34.7 AV	54.0	-19.3	1.95 H	192	22.3	12.4
7	#17235.00	48.9 PK	68.2	-19.3	2.06 H	254	32.2	16.7

Remarks:

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

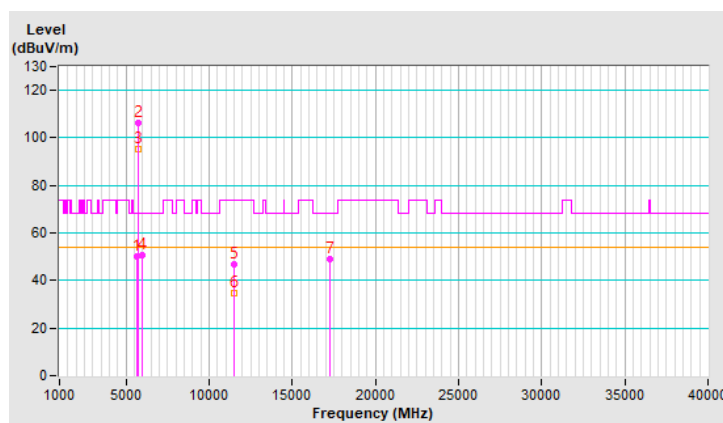


RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5636.46	50.1 PK	68.2	-18.1	1.96 V	28	47.8	2.3
2	*5745.00	106.1 PK			1.96 V	28	103.6	2.5
3	*5745.00	95.4 AV			1.96 V	28	92.9	2.5
4	#5967.05	50.6 PK	68.2	-17.6	1.96 V	28	47.7	2.9
5	11490.00	46.6 PK	74.0	-27.4	1.19 V	29	34.2	12.4
6	11490.00	34.8 AV	54.0	-19.2	1.19 V	29	22.4	12.4
7	#17235.00	49.2 PK	68.2	-19.0	1.79 V	339	32.5	16.7

Remarks:

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

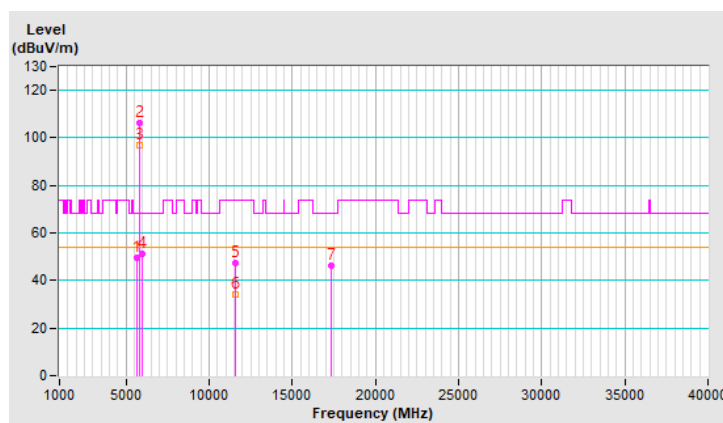


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.66	49.8 PK	68.2	-18.4	1.07 H	98	47.5	2.3
2	*5785.00	106.4 PK			1.07 H	98	103.7	2.7
3	*5785.00	96.7 AV			1.07 H	98	94.0	2.7
4	#5962.66	51.3 PK	68.2	-16.9	1.07 H	98	48.4	2.9
5	11570.00	47.2 PK	74.0	-26.8	1.64 H	176	34.8	12.4
6	11570.00	34.1 AV	54.0	-19.9	1.64 H	176	21.7	12.4
7	#17355.00	46.1 PK	68.2	-22.1	2.21 H	274	28.5	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.

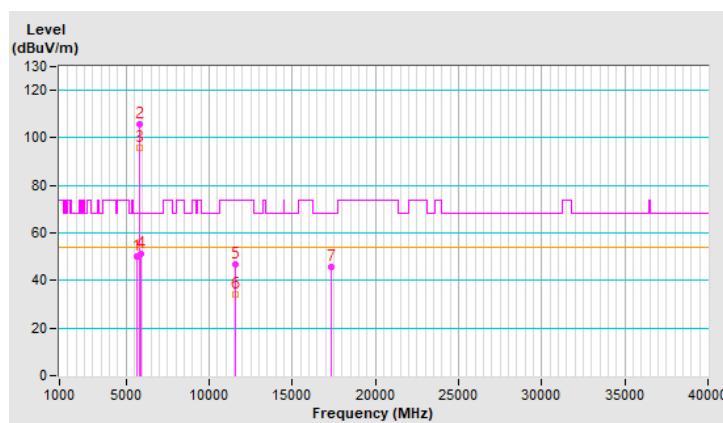


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.66	50.2 PK	68.2	-18.0	1.14 V	28	47.9	2.3
2	*5785.00	105.5 PK			1.14 V	28	102.8	2.7
3	*5785.00	95.7 AV			1.14 V	28	93.0	2.7
4	#5932.85	51.4 PK	68.2	-16.8	1.14 V	28	48.5	2.9
5	11570.00	46.7 PK	74.0	-27.3	2.44 V	218	34.3	12.4
6	11570.00	34.1 AV	54.0	-19.9	2.44 V	218	21.7	12.4
7	#17355.00	45.9 PK	68.2	-22.3	2.22 V	194	28.3	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.

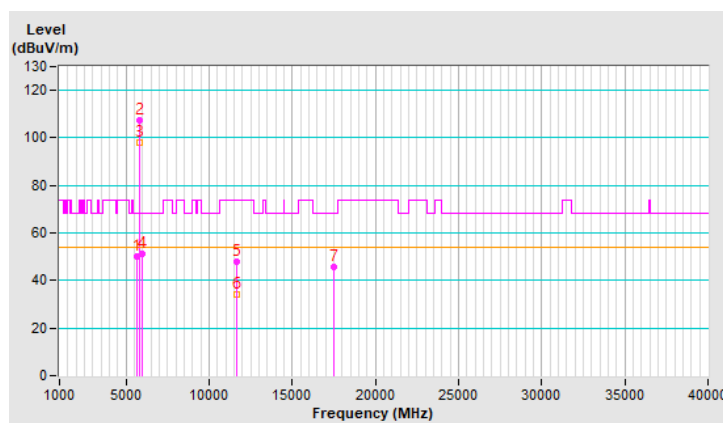


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5643.39	50.2 PK	68.2	-18.0	1.03 H	95	47.9	2.3
2	*5825.00	107.3 PK			1.03 H	95	104.5	2.8
3	*5825.00	97.9 AV			1.03 H	95	95.1	2.8
4	#5955.41	51.2 PK	68.2	-17.0	1.03 H	95	48.3	2.9
5	11650.00	47.7 PK	74.0	-26.3	1.63 H	172	35.8	11.9
6	11650.00	34.3 AV	54.0	-19.7	1.63 H	172	22.4	11.9
7	#17475.00	45.8 PK	68.2	-22.4	2.24 H	267	27.3	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.

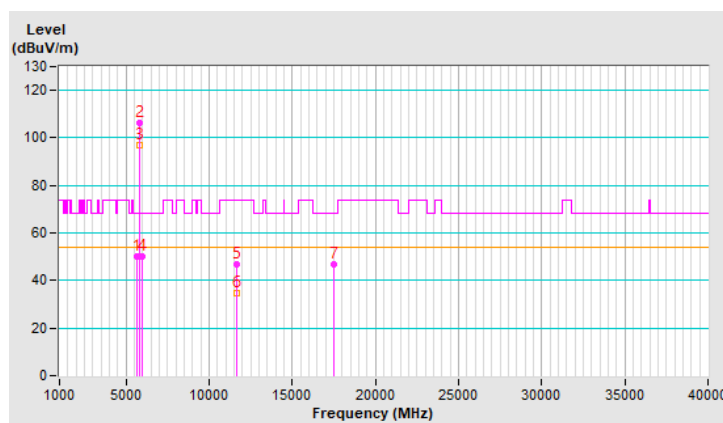


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5632.66	50.1 PK	68.2	-18.1	2.14 V	10	47.8	2.3
2	*5825.00	106.5 PK			2.14 V	10	103.7	2.8
3	*5825.00	96.7 AV			2.14 V	10	93.9	2.8
4	#5940.32	50.2 PK	68.2	-18.0	2.14 V	10	47.3	2.9
5	11650.00	46.8 PK	74.0	-27.2	2.51 V	233	34.9	11.9
6	11650.00	34.6 AV	54.0	-19.4	2.51 V	233	22.7	11.9
7	#17475.00	46.7 PK	68.2	-21.5	2.50 V	59	28.2	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.

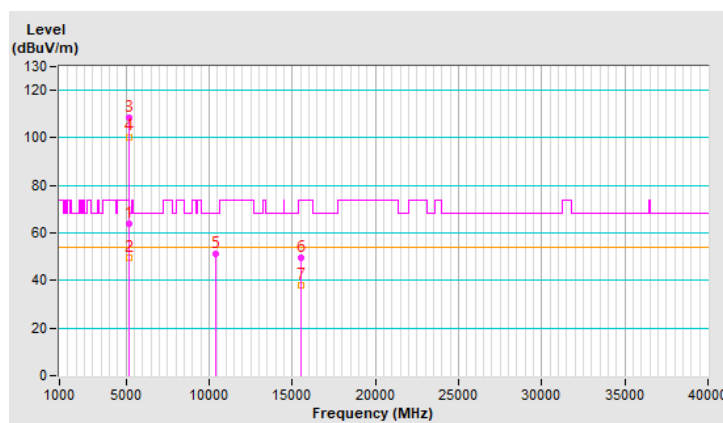


RF Mode	TX 802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	64.1 PK	74.0	-9.9	1.15 H	93	61.7	2.4
2	5150.00	49.5 AV	54.0	-4.5	1.15 H	93	47.1	2.4
3	*5180.00	108.5 PK			1.15 H	93	106.3	2.2
4	*5180.00	100.5 AV			1.15 H	93	98.3	2.2
5	#10360.00	51.2 PK	68.2	-17.0	1.56 H	175	39.5	11.7
6	15540.00	49.3 PK	74.0	-24.7	2.23 H	302	37.5	11.8
7	15540.00	37.8 AV	54.0	-16.2	2.23 H	302	26.0	11.8

Remarks:

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

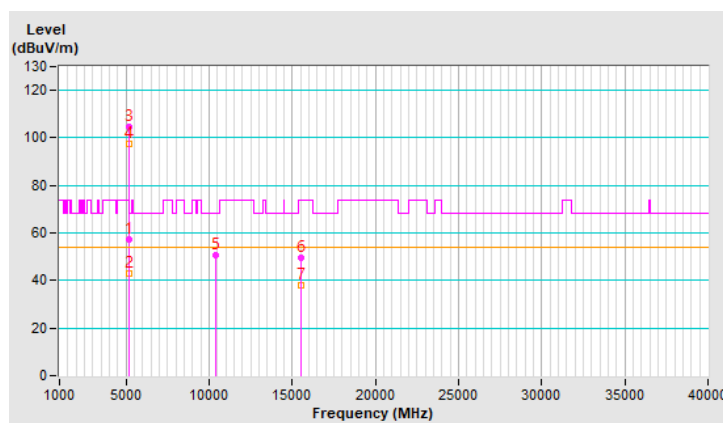


RF Mode	TX 802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	2.45 V	19	54.7	2.4
2	5150.00	42.9 AV	54.0	-11.1	2.45 V	19	40.5	2.4
3	*5180.00	104.4 PK			2.45 V	19	102.2	2.2
4	*5180.00	97.2 AV			2.45 V	19	95.0	2.2
5	#10360.00	50.5 PK	68.2	-17.7	2.15 V	275	38.8	11.7
6	15540.00	49.5 PK	74.0	-24.5	1.86 V	282	37.7	11.8
7	15540.00	38.1 AV	54.0	-15.9	1.86 V	282	26.3	11.8

Remarks:

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

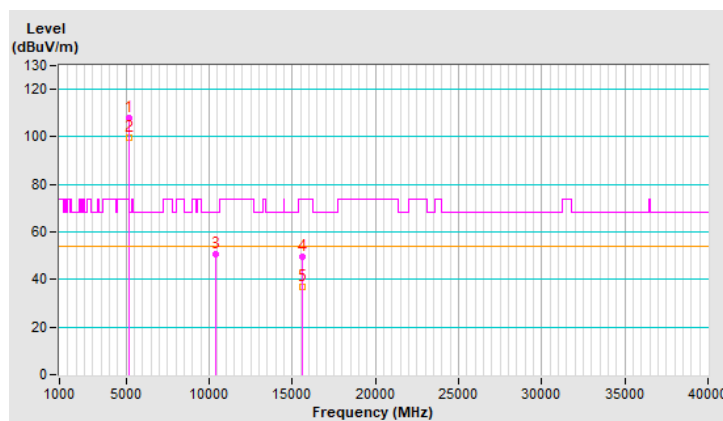


RF Mode	TX 802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	108.1 PK			1.19 H	83	106.0	2.1
2	*5200.00	99.6 AV			1.19 H	83	97.5	2.1
3	#10400.00	50.9 PK	68.2	-17.3	1.60 H	171	39.0	11.9
4	15600.00	49.8 PK	74.0	-24.2	2.19 H	307	38.3	11.5
5	15600.00	36.7 AV	54.0	-17.3	2.19 H	307	25.2	11.5

Remarks:

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

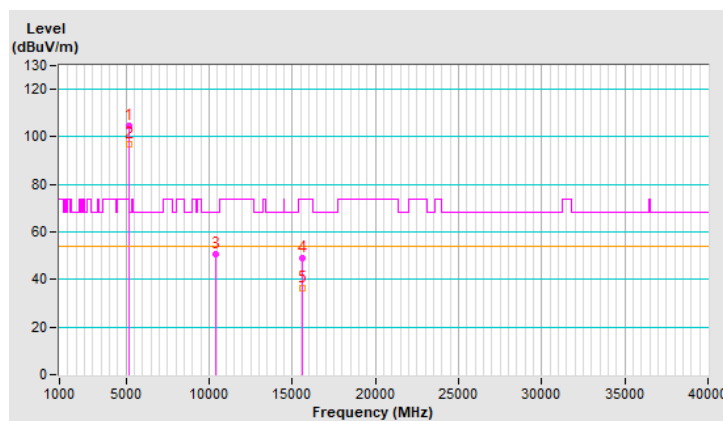


RF Mode	TX 802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	104.6 PK			2.48 V	5	102.5	2.1
2	*5200.00	96.9 AV			2.48 V	5	94.8	2.1
3	#10400.00	50.9 PK	68.2	-17.3	2.19 V	285	39.0	11.9
4	15600.00	48.9 PK	74.0	-25.1	1.83 V	271	37.4	11.5
5	15600.00	36.5 AV	54.0	-17.5	1.83 V	271	25.0	11.5

Remarks:

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

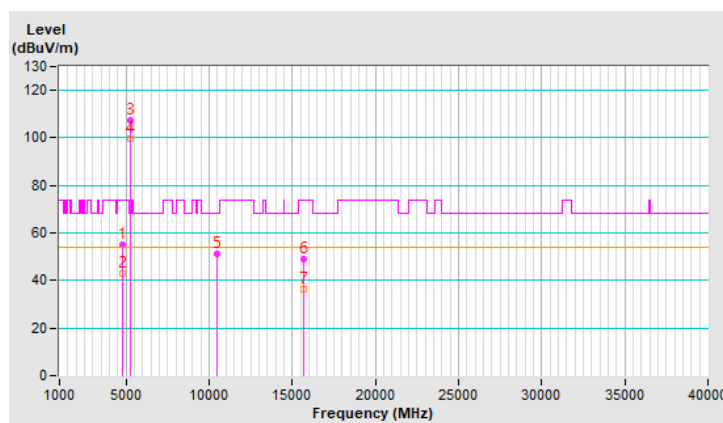


RF Mode	TX 802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	4787.76	55.2 PK	74.0	-18.8	1.19 H	92	53.7	1.5
2	4787.76	42.9 AV	54.0	-11.1	1.19 H	92	41.4	1.5
3	*5240.00	107.6 PK			1.19 H	92	105.7	1.9
4	*5240.00	99.6 AV			1.19 H	92	97.7	1.9
5	#10480.00	51.4 PK	68.2	-16.8	1.64 H	165	39.5	11.9
6	15720.00	49.0 PK	74.0	-25.0	2.22 H	293	37.3	11.7
7	15720.00	36.5 AV	54.0	-17.5	2.22 H	293	24.8	11.7

Remarks:

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

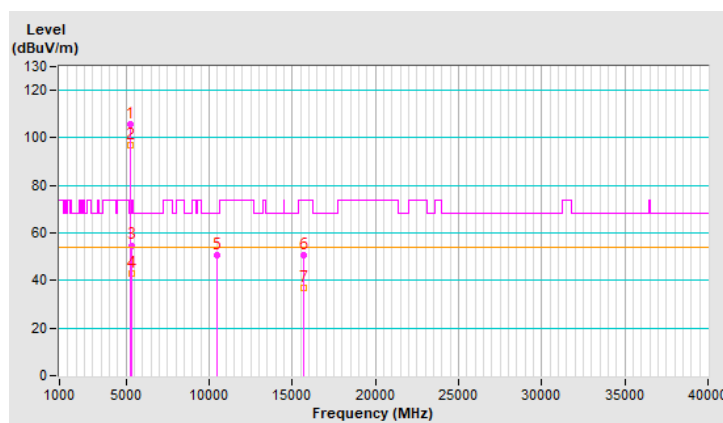


RF Mode	TX 802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	105.9 PK			2.50 V	6	104.0	1.9
2	*5240.00	97.0 AV			2.50 V	6	95.1	1.9
3	5350.00	54.8 PK	74.0	-19.2	2.50 V	6	52.8	2.0
4	5350.00	43.1 AV	54.0	-10.9	2.50 V	6	41.1	2.0
5	#10480.00	50.7 PK	68.2	-17.5	2.19 V	289	38.8	11.9
6	15720.00	50.5 PK	74.0	-23.5	1.83 V	283	38.8	11.7
7	15720.00	37.0 AV	54.0	-17.0	1.83 V	283	25.3	11.7

Remarks:

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

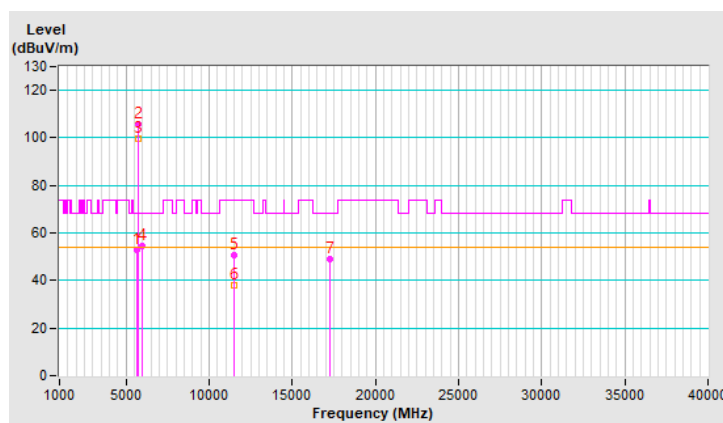


RF Mode	TX 802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5631.81	53.0 PK	68.2	-15.2	1.15 H	71	50.7	2.3
2	*5745.00	105.9 PK			1.15 H	71	103.4	2.5
3	*5745.00	99.8 AV			1.15 H	71	97.3	2.5
4	#5969.59	54.4 PK	68.2	-13.8	1.15 H	71	51.5	2.9
5	11490.00	50.6 PK	74.0	-23.4	1.63 H	185	38.2	12.4
6	11490.00	38.1 AV	54.0	-15.9	1.63 H	185	25.7	12.4
7	#17235.00	48.9 PK	68.2	-19.3	2.20 H	300	32.2	16.7

Remarks:

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

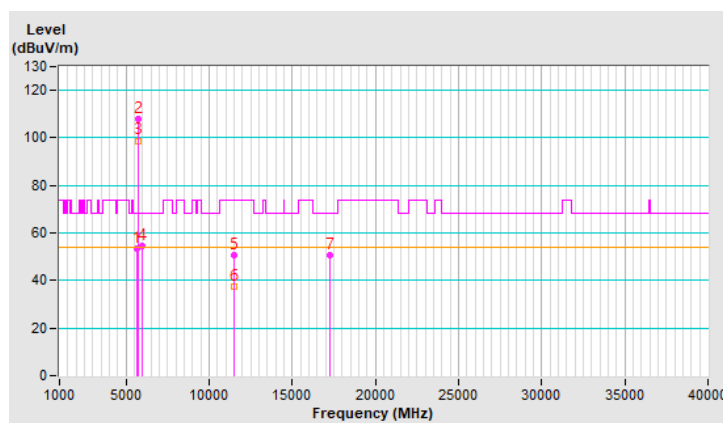


RF Mode	TX 802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5631.81	53.6 PK	68.2	-14.6	2.45 V	13	51.3	2.3
2	*5745.00	107.8 PK			2.45 V	13	105.3	2.5
3	*5745.00	98.9 AV			2.45 V	13	96.4	2.5
4	#5969.59	54.3 PK	68.2	-13.9	2.45 V	13	51.4	2.9
5	11490.00	50.5 PK	74.0	-23.5	2.23 V	305	38.1	12.4
6	11490.00	37.6 AV	54.0	-16.4	2.23 V	305	25.2	12.4
7	#17235.00	50.6 PK	68.2	-17.6	1.78 V	298	33.9	16.7

Remarks:

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

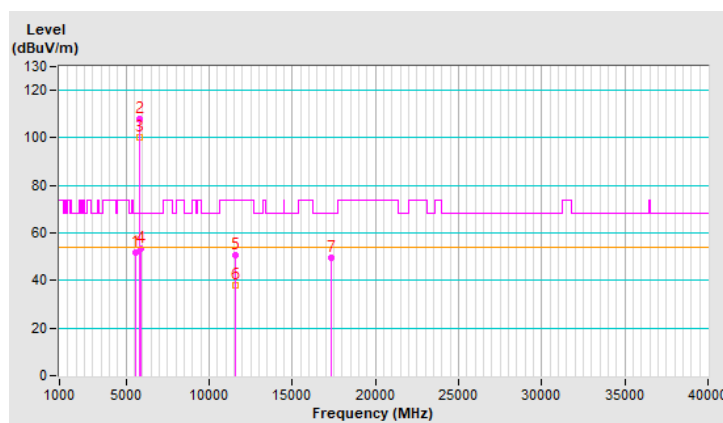


RF Mode	TX 802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5610.37	51.9 PK	68.2	-16.3	1.12 H	83	49.7	2.2
2	*5785.00	107.9 PK			1.12 H	83	105.2	2.7
3	*5785.00	100.4 AV			1.12 H	83	97.7	2.7
4	#5927.19	53.6 PK	68.2	-14.6	1.12 H	83	50.7	2.9
5	11570.00	50.4 PK	74.0	-23.6	1.63 H	183	38.0	12.4
6	11570.00	37.8 AV	54.0	-16.2	1.63 H	183	25.4	12.4
7	#17355.00	49.7 PK	68.2	-18.5	2.23 H	322	32.1	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.

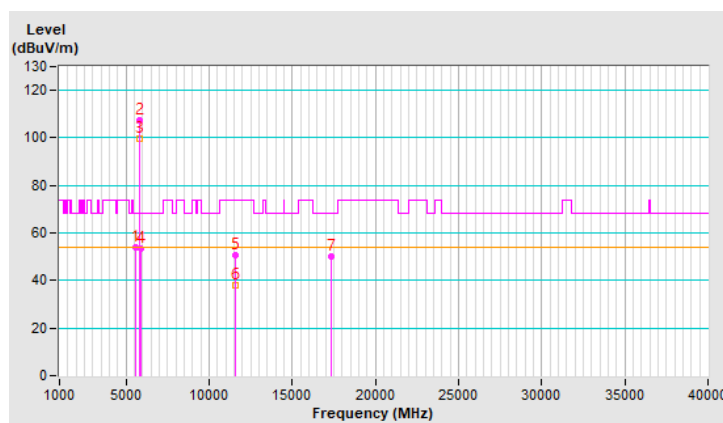


RF Mode	TX 802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	#5610.37	54.1 PK	68.2	-14.1	2.45 V	23	51.9	2.2
2	*5785.00	107.4 PK			2.45 V	23	104.7	2.7
3	*5785.00	99.8 AV			2.45 V	23	97.1	2.7
4	#5927.19	53.2 PK	68.2	-15.0	2.45 V	23	50.3	2.9
5	11570.00	50.7 PK	74.0	-23.3	2.28 V	290	38.3	12.4
6	11570.00	38.1 AV	54.0	-15.9	2.28 V	290	25.7	12.4
7	#17355.00	49.9 PK	68.2	-18.3	1.83 V	293	32.3	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.

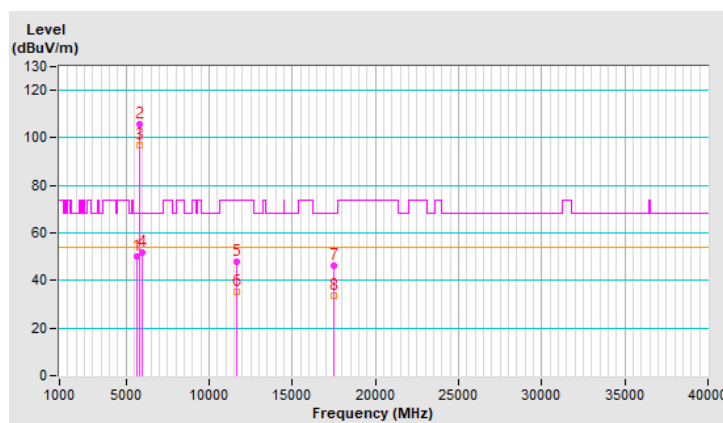


RF Mode	TX 802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	#5630.49	50.3 PK	68.2	-17.9	1.05 H	108	48.0	2.3
2	*5825.00	105.5 PK			1.15 H	89	102.7	2.8
3	*5825.00	96.9 AV			1.15 H	89	94.1	2.8
4	#5972.45	51.6 PK	68.2	-16.6	1.06 H	90	48.7	2.9
5	11650.00	47.7 PK	74.0	-26.3	1.56 H	181	35.8	11.9
6	11650.00	35.2 AV	54.0	-18.8	1.56 H	181	23.3	11.9
7	#17475.00	46.1 PK	68.2	-22.1	2.28 H	281	27.6	18.5
8	#17475.00	33.4 AV	54.0	-20.6	2.28 H	281	14.9	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.

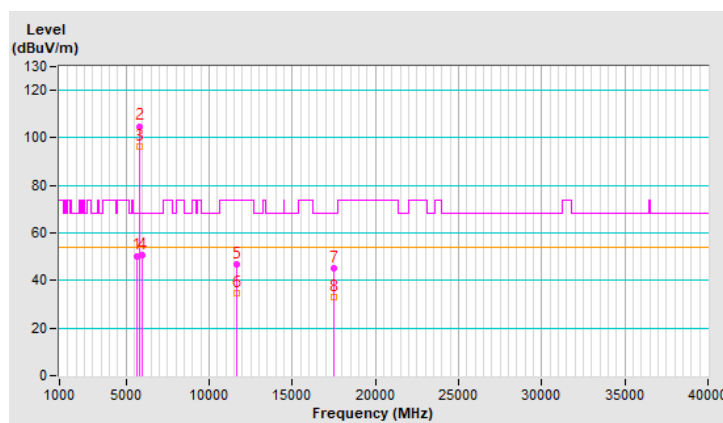


RF Mode	TX 802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	#5630.49	50.4 PK	68.2	-17.8	2.35 V	52	48.1	2.3
2	*5825.00	104.9 PK			2.26 V	22	102.1	2.8
3	*5825.00	96.2 AV			2.26 V	22	93.4	2.8
4	#5972.45	50.5 PK	68.2	-17.7	2.34 V	50	47.6	2.9
5	11650.00	46.9 PK	74.0	-27.1	1.39 V	314	35.0	11.9
6	11650.00	34.5 AV	54.0	-19.5	1.39 V	314	22.6	11.9
7	#17475.00	45.2 PK	68.2	-23.0	1.98 V	0	26.7	18.5
8	#17475.00	32.8 AV	54.0	-21.2	1.98 V	0	14.3	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.

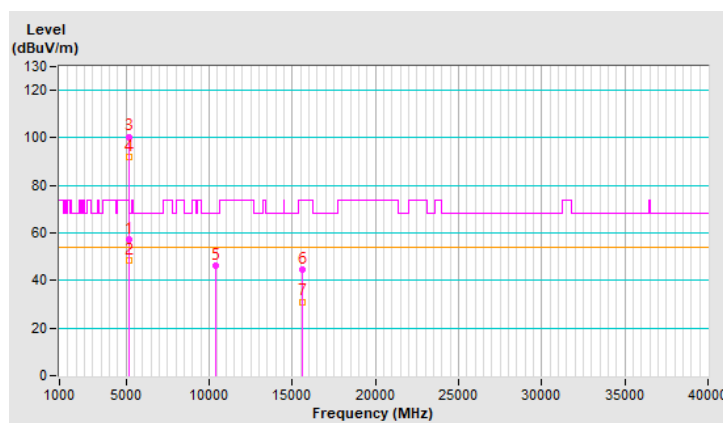


RF Mode	TX 802.11n (HT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	57.1 PK	74.0	-16.9	1.08 H	69	54.7	2.4
2	5150.00	48.5 AV	54.0	-5.5	1.08 H	69	46.1	2.4
3	*5190.00	100.5 PK			1.08 H	69	98.3	2.2
4	*5190.00	91.7 AV			1.08 H	69	89.5	2.2
5	#10380.00	46.1 PK	68.2	-22.1	1.58 H	161	34.3	11.8
6	15570.00	44.8 PK	74.0	-29.2	2.17 H	299	33.0	11.8
7	15570.00	31.1 AV	54.0	-22.9	2.17 H	299	19.3	11.8

Remarks:

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

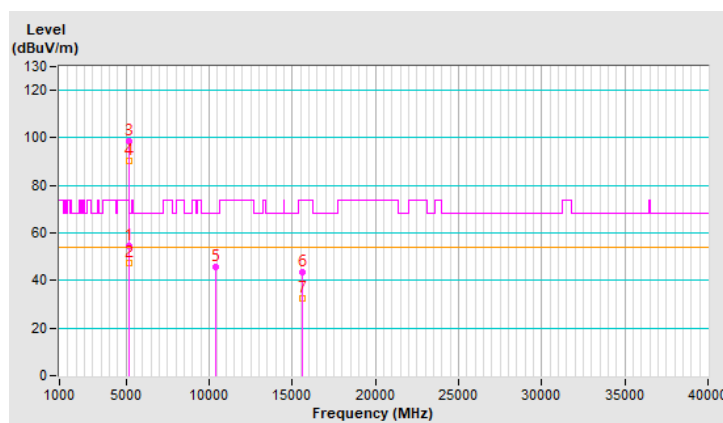


RF Mode	TX 802.11n (HT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	54.6 PK	74.0	-19.4	2.49 V	33	52.2	2.4
2	5150.00	47.3 AV	54.0	-6.7	2.49 V	33	44.9	2.4
3	*5190.00	98.6 PK			2.49 V	33	96.4	2.2
4	*5190.00	90.2 AV			2.49 V	33	88.0	2.2
5	#10380.00	45.5 PK	68.2	-22.7	2.30 V	277	33.7	11.8
6	15570.00	43.7 PK	74.0	-30.3	1.84 V	279	31.9	11.8
7	15570.00	32.3 AV	54.0	-21.7	1.84 V	279	20.5	11.8

Remarks:

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

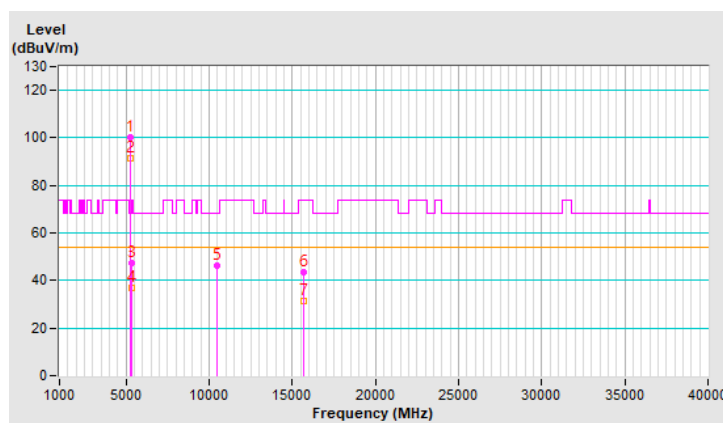


RF Mode	TX 802.11n (HT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	100.1 PK			1.11 H	64	98.1	2.0
2	*5230.00	91.2 AV			1.11 H	64	89.2	2.0
3	5350.00	47.6 PK	74.0	-26.4	1.11 H	64	45.6	2.0
4	5350.00	37.1 AV	54.0	-16.9	1.11 H	64	35.1	2.0
5	#10460.00	46.2 PK	68.2	-22.0	1.63 H	199	34.2	12.0
6	15690.00	43.5 PK	74.0	-30.5	2.25 H	338	31.6	11.9
7	15690.00	31.2 AV	54.0	-22.8	2.25 H	338	19.3	11.9

Remarks:

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

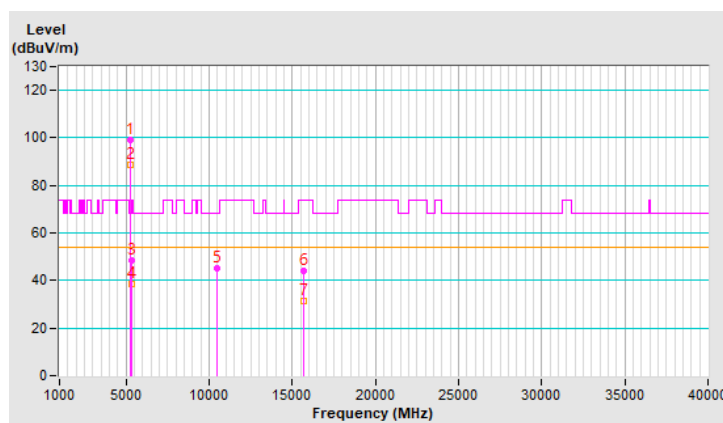


RF Mode	TX 802.11n (HT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	99.1 PK			2.49 V	19	97.1	2.0
2	*5230.00	88.9 AV			2.49 V	19	86.9	2.0
3	5350.00	48.5 PK	74.0	-25.5	2.49 V	19	46.5	2.0
4	5350.00	38.4 AV	54.0	-15.6	2.49 V	19	36.4	2.0
5	#10460.00	45.0 PK	68.2	-23.2	2.30 V	285	33.0	12.0
6	15690.00	43.8 PK	74.0	-30.2	1.81 V	279	31.9	11.9
7	15690.00	31.1 AV	54.0	-22.9	1.81 V	279	19.2	11.9

Remarks:

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

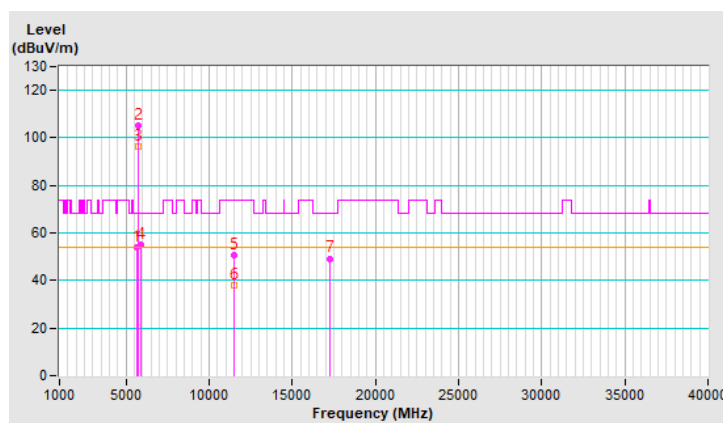


RF Mode	TX 802.11n (HT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	#5641.27	53.8 PK	68.2	-14.4	1.03 H	63	51.5	2.3
2	*5755.00	105.3 PK			1.03 H	63	102.7	2.6
3	*5755.00	96.4 AV			1.03 H	63	93.8	2.6
4	#5929.03	54.9 PK	68.2	-13.3	1.03 H	63	52.0	2.9
5	11510.00	50.9 PK	74.0	-23.1	1.59 H	174	38.5	12.4
6	11510.00	38.0 AV	54.0	-16.0	1.59 H	174	25.6	12.4
7	#17265.00	49.3 PK	68.2	-18.9	2.19 H	331	32.5	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.

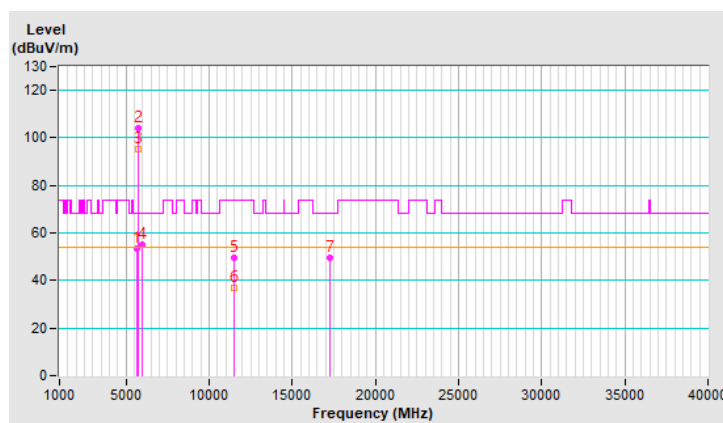


RF Mode	TX 802.11n (HT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

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	#5621.08	53.2 PK	68.2	-15.0	2.53 V	33	51.0	2.2
2	*5755.00	103.9 PK			2.53 V	33	101.3	2.6
3	*5755.00	95.0 AV			2.53 V	33	92.4	2.6
4	#5964.47	55.1 PK	68.2	-13.1	2.53 V	33	52.2	2.9
5	11510.00	49.4 PK	74.0	-24.6	2.25 V	302	37.0	12.4
6	11510.00	37.1 AV	54.0	-16.9	2.25 V	302	24.7	12.4
7	#17265.00	49.7 PK	68.2	-18.5	1.89 V	282	32.9	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.

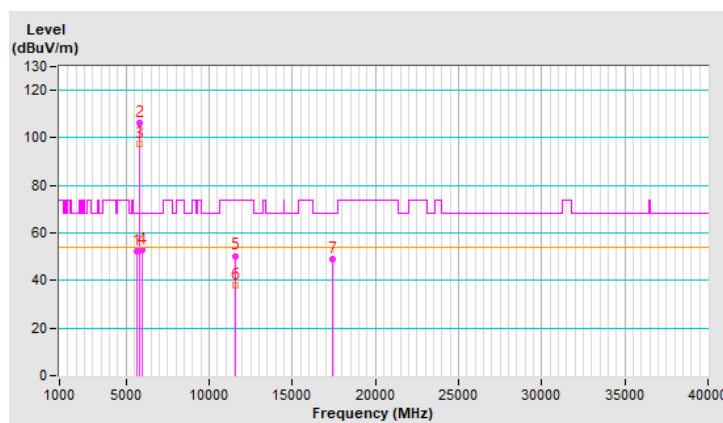


RF Mode	TX 802.11n (HT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.50	52.1 PK	68.2	-16.1	1.05 H	56	49.8	2.3
2	*5795.00	106.3 PK			1.05 H	56	103.6	2.7
3	*5795.00	97.5 AV			1.05 H	56	94.8	2.7
4	#5978.09	53.0 PK	68.2	-15.2	1.05 H	56	50.1	2.9
5	11590.00	50.4 PK	74.0	-23.6	1.64 H	168	38.1	12.3
6	11590.00	37.9 AV	54.0	-16.1	1.64 H	168	25.6	12.3
7	#17385.00	49.1 PK	68.2	-19.1	2.23 H	310	31.3	17.8

Remarks:

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

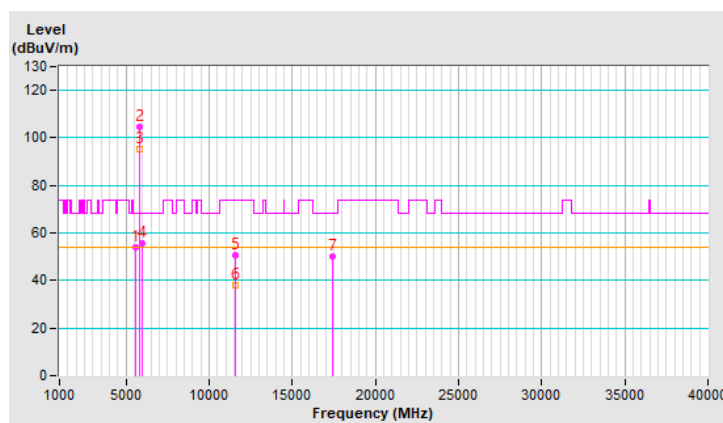


RF Mode	TX 802.11n (HT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	30°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5616.74	54.2 PK	68.2	-14.0	2.44 V	38	52.0	2.2
2	*5795.00	104.6 PK			2.44 V	38	101.9	2.7
3	*5795.00	95.4 AV			2.44 V	38	92.7	2.7
4	#5954.36	55.6 PK	68.2	-12.6	2.44 V	38	52.7	2.9
5	11590.00	50.8 PK	74.0	-23.2	2.25 V	290	38.5	12.3
6	11590.00	37.9 AV	54.0	-16.1	2.25 V	290	25.6	12.3
7	#17385.00	49.9 PK	68.2	-18.3	1.83 V	298	32.1	17.8

Remarks:

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

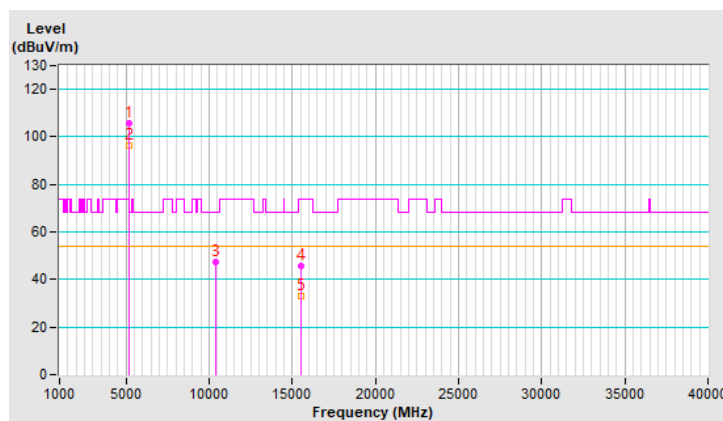


RF Mode	TX 802.11ac (VHT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	*5180.00	105.5 PK			1.18 H	90	103.3	2.2
2	*5180.00	96.5 AV			1.18 H	90	94.3	2.2
3	#10360.00	47.1 PK	68.2	-21.1	1.59 H	179	35.4	11.7
4	15540.00	45.5 PK	74.0	-28.5	2.23 H	295	33.7	11.8
5	15540.00	33.2 AV	54.0	-20.8	2.23 H	295	21.4	11.8

Remarks:

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

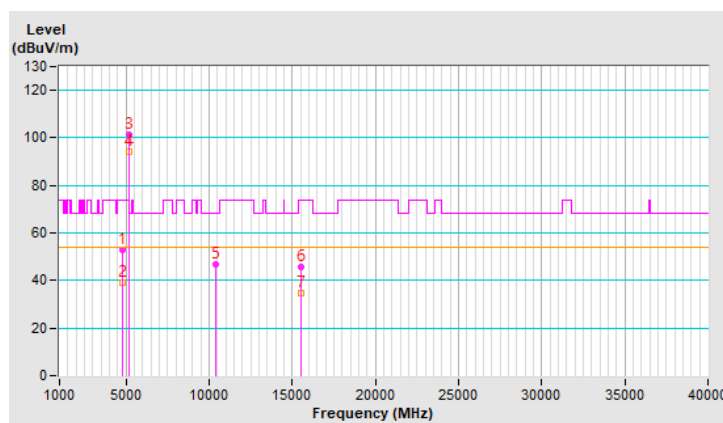


RF Mode	TX 802.11ac (VHT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	4787.95	53.1 PK	74.0	-20.9	2.44 V	27	51.6	1.5
2	4787.95	39.3 AV	54.0	-14.7	2.44 V	27	37.8	1.5
3	*5180.00	101.3 PK			2.44 V	27	99.1	2.2
4	*5180.00	94.0 AV			2.44 V	27	91.8	2.2
5	#10360.00	46.8 PK	68.2	-21.4	2.13 V	289	35.1	11.7
6	15540.00	45.6 PK	74.0	-28.4	1.85 V	266	33.8	11.8
7	15540.00	34.5 AV	54.0	-19.5	1.85 V	266	22.7	11.8

Remarks:

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

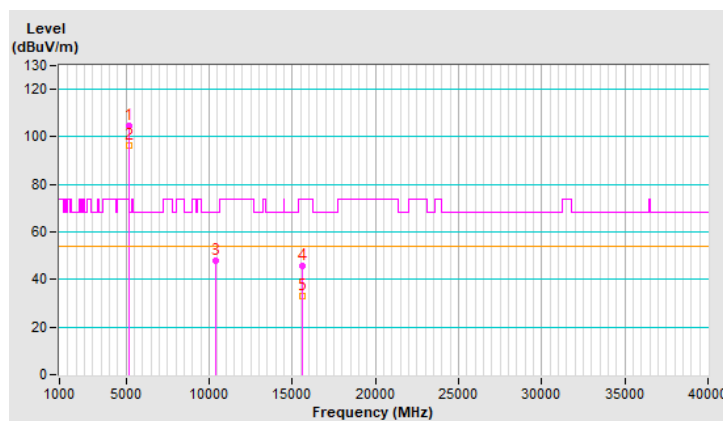


RF Mode	TX 802.11ac (VHT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	104.8 PK			1.03 H	94	102.7	2.1
2	*5200.00	96.3 AV			1.03 H	94	94.2	2.1
3	#10400.00	47.9 PK	68.2	-20.3	1.63 H	160	36.0	11.9
4	15600.00	45.8 PK	74.0	-28.2	2.21 H	280	34.3	11.5
5	15600.00	33.2 AV	54.0	-20.8	2.21 H	280	21.7	11.5

Remarks:

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

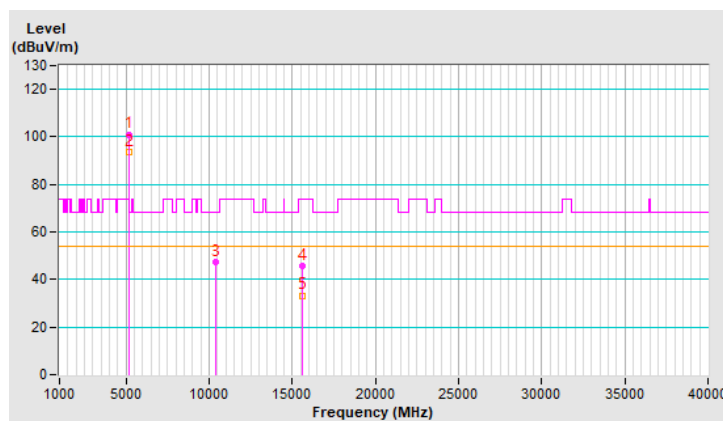


RF Mode	TX 802.11ac (VHT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	101.1 PK			2.89 V	33	99.0	2.1
2	*5200.00	93.6 AV			2.89 V	33	91.5	2.1
3	#10400.00	47.6 PK	68.2	-20.6	1.46 V	307	35.7	11.9
4	15600.00	45.6 PK	74.0	-28.4	1.84 V	15	34.1	11.5
5	15600.00	33.3 AV	54.0	-20.7	1.84 V	15	21.8	11.5

Remarks:

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

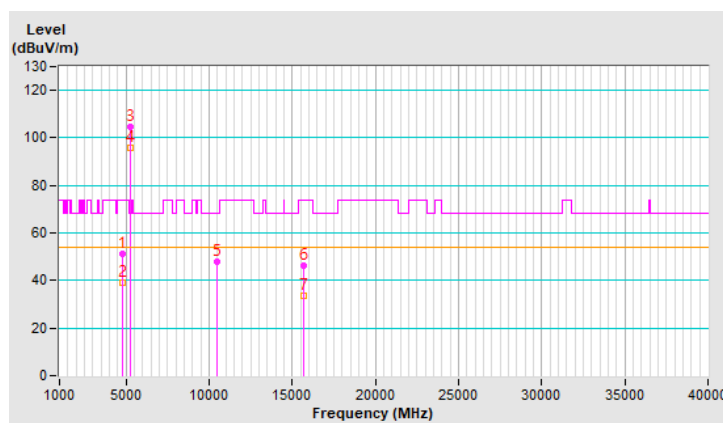


RF Mode	TX 802.11ac (VHT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	4787.76	51.3 PK	74.0	-22.7	1.15 H	93	49.8	1.5
2	4787.76	39.3 AV	54.0	-14.7	1.15 H	93	37.8	1.5
3	*5240.00	104.4 PK			1.15 H	93	102.5	1.9
4	*5240.00	95.9 AV			1.15 H	93	94.0	1.9
5	#10480.00	47.8 PK	68.2	-20.4	1.63 H	164	35.9	11.9
6	15720.00	46.0 PK	74.0	-28.0	2.28 H	293	34.3	11.7
7	15720.00	33.4 AV	54.0	-20.6	2.28 H	293	21.7	11.7

Remarks:

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

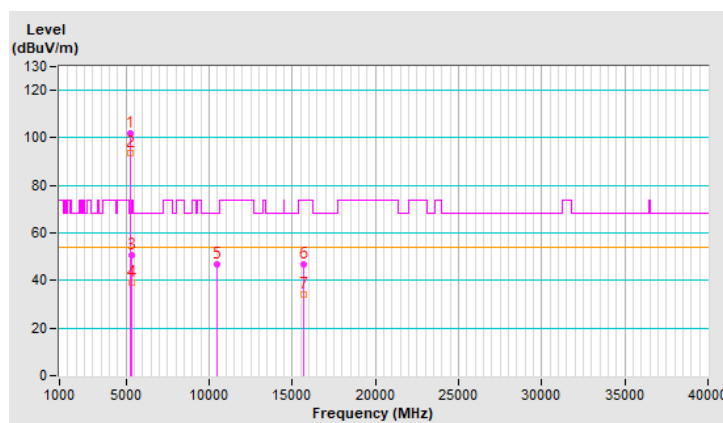


RF Mode	TX 802.11ac (VHT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	101.9 PK			2.42 V	29	100.0	1.9
2	*5240.00	93.8 AV			2.42 V	29	91.9	1.9
3	5350.00	50.8 PK	74.0	-23.2	2.42 V	29	48.8	2.0
4	5350.00	39.3 AV	54.0	-14.7	2.42 V	29	37.3	2.0
5	#10480.00	46.9 PK	68.2	-21.3	1.41 V	302	35.0	11.9
6	15720.00	46.6 PK	74.0	-27.4	1.93 V	9	34.9	11.7
7	15720.00	33.9 AV	54.0	-20.1	1.93 V	9	22.2	11.7

Remarks:

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

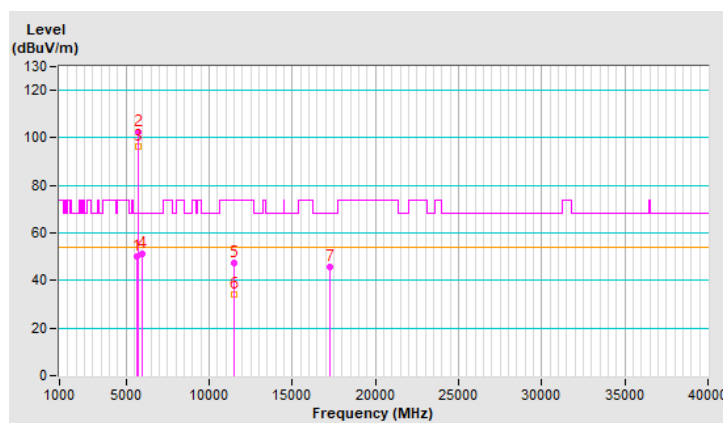


RF Mode	TX 802.11ac (VHT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5639.59	49.9 PK	68.2	-18.3	1.08 H	96	47.6	2.3
2	*5745.00	102.5 PK			1.08 H	96	100.0	2.5
3	*5745.00	96.5 AV			1.08 H	96	94.0	2.5
4	#5984.01	51.0 PK	68.2	-17.2	1.08 H	96	48.1	2.9
5	11490.00	47.2 PK	74.0	-26.8	1.67 H	163	34.8	12.4
6	11490.00	34.3 AV	54.0	-19.7	1.67 H	163	21.9	12.4
7	#17235.00	45.6 PK	68.2	-22.6	2.25 H	281	28.9	16.7

Remarks:

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

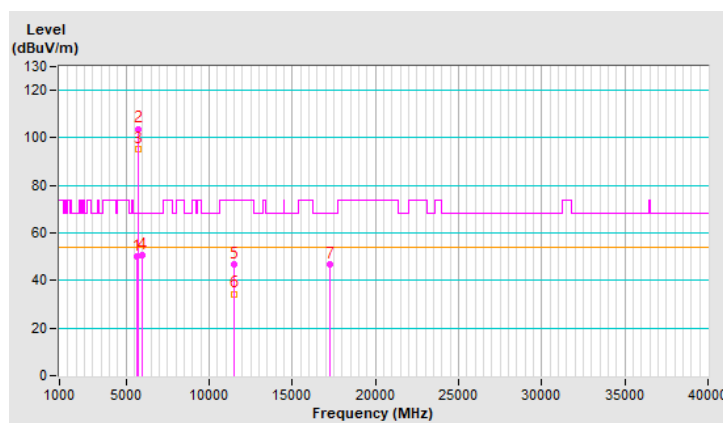


RF Mode	TX 802.11ac (VHT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5631.81	50.2 PK	68.2	-18.0	2.37 V	33	47.9	2.3
2	*5745.00	103.8 PK			2.37 V	33	101.3	2.5
3	*5745.00	95.4 AV			2.37 V	33	92.9	2.5
4	#5969.59	50.9 PK	68.2	-17.3	2.37 V	33	48.0	2.9
5	11490.00	46.8 PK	74.0	-27.2	1.46 V	301	34.4	12.4
6	11490.00	34.4 AV	54.0	-19.6	1.46 V	301	22.0	12.4
7	#17235.00	46.8 PK	68.2	-21.4	1.87 V	6	30.1	16.7

Remarks:

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

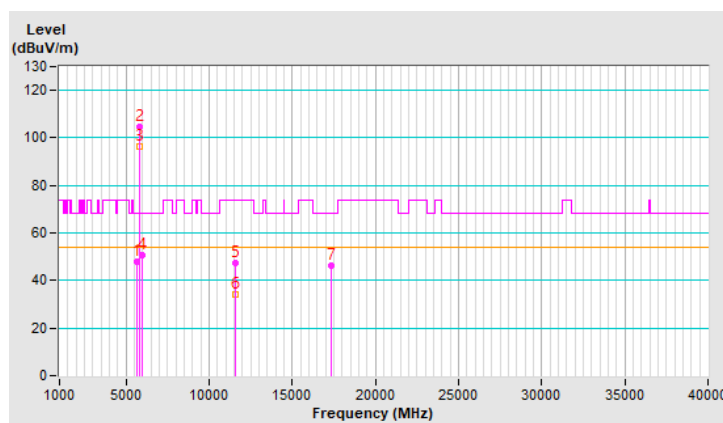


RF Mode	TX 802.11ac (VHT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5623.77	48.1 PK	68.2	-20.1	1.10 H	96	45.9	2.2
2	*5785.00	104.5 PK			1.10 H	96	101.8	2.7
3	*5785.00	96.6 AV			1.10 H	96	93.9	2.7
4	#5934.68	50.6 PK	68.2	-17.6	1.10 H	96	47.7	2.9
5	11570.00	47.4 PK	74.0	-26.6	1.66 H	172	35.0	12.4
6	11570.00	34.3 AV	54.0	-19.7	1.66 H	172	21.9	12.4
7	#17355.00	46.5 PK	68.2	-21.7	2.30 H	277	28.9	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.

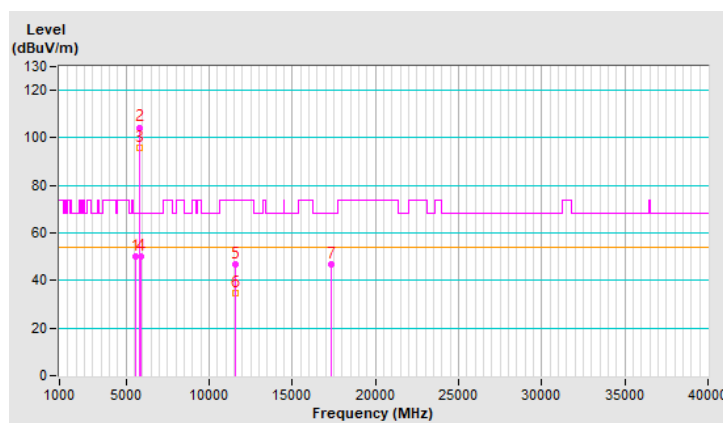


RF Mode	TX 802.11ac (VHT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5610.37	50.1 PK	68.2	-18.1	2.18 V	30	47.9	2.2
2	*5785.00	104.4 PK			2.18 V	30	101.7	2.7
3	*5785.00	95.9 AV			2.18 V	30	93.2	2.7
4	#5927.19	50.2 PK	68.2	-18.0	2.18 V	30	47.3	2.9
5	11570.00	46.9 PK	74.0	-27.1	1.46 V	307	34.5	12.4
6	11570.00	34.7 AV	54.0	-19.3	1.46 V	307	22.3	12.4
7	#17355.00	46.7 PK	68.2	-21.5	1.94 V	2	29.1	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.

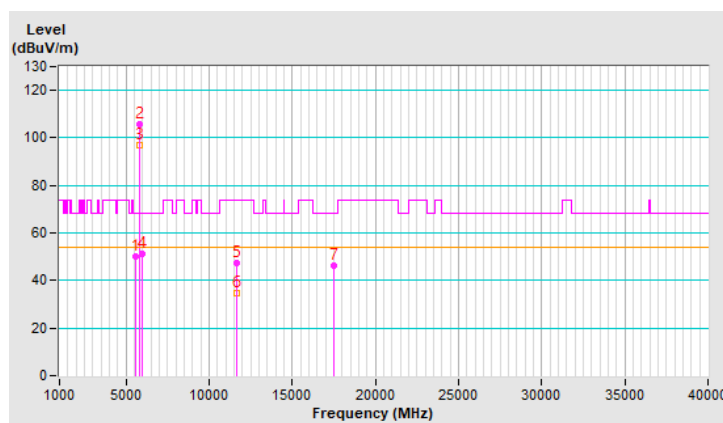


RF Mode	TX 802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5615.31	49.9 PK	68.2	-18.3	1.10 H	92	47.7	2.2
2	*5825.00	105.7 PK			1.10 H	92	102.9	2.8
3	*5825.00	96.9 AV			1.10 H	92	94.1	2.8
4	#5947.86	51.3 PK	68.2	-16.9	1.10 H	92	48.4	2.9
5	11650.00	47.5 PK	74.0	-26.5	1.61 H	178	35.6	11.9
6	11650.00	34.9 AV	54.0	-19.1	1.61 H	178	23.0	11.9
7	#17475.00	46.5 PK	68.2	-21.7	2.30 H	269	28.0	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.

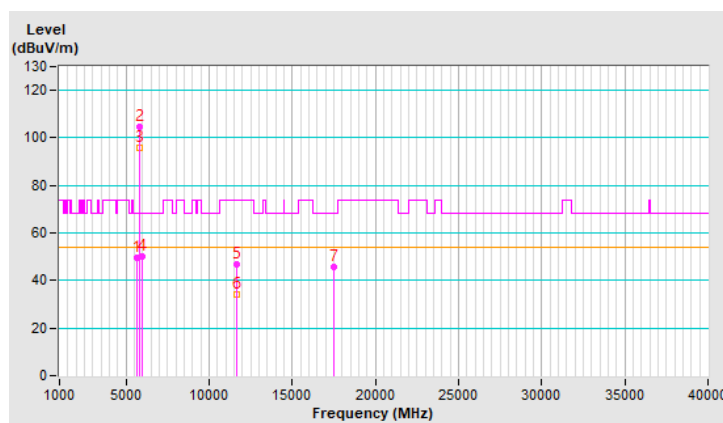


RF Mode	TX 802.11ac (VHT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5630.49	49.7 PK	68.2	-18.5	2.30 V	36	47.4	2.3
2	*5825.00	104.5 PK			2.30 V	36	101.7	2.8
3	*5825.00	95.8 AV			2.30 V	36	93.0	2.8
4	#5972.45	50.1 PK	68.2	-18.1	2.30 V	36	47.2	2.9
5	11650.00	46.6 PK	74.0	-27.4	1.37 V	326	34.7	11.9
6	11650.00	34.3 AV	54.0	-19.7	1.37 V	326	22.4	11.9
7	#17475.00	45.7 PK	68.2	-22.5	1.92 V	1	27.2	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.

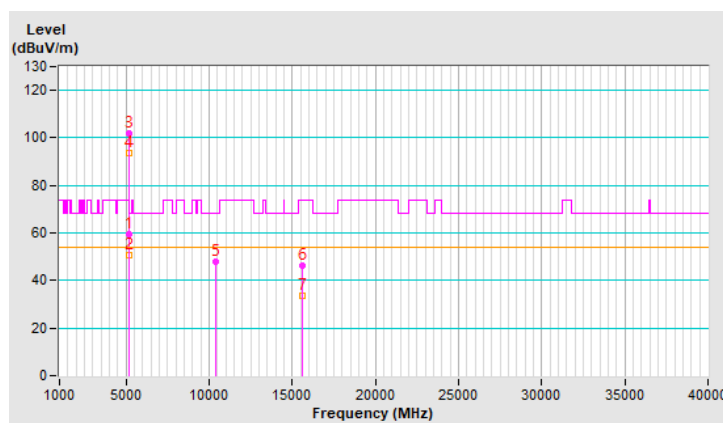


RF Mode	TX 802.11ac (VHT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	59.5 PK	74.0	-14.5	1.06 H	98	57.1	2.4
2	5150.00	50.8 AV	54.0	-3.2	1.06 H	98	48.4	2.4
3	*5190.00	102.0 PK			1.06 H	98	99.8	2.2
4	*5190.00	93.6 AV			1.06 H	98	91.4	2.2
5	#10380.00	47.8 PK	68.2	-20.4	1.58 H	158	36.0	11.8
6	15570.00	46.0 PK	74.0	-28.0	2.28 H	272	34.2	11.8
7	15570.00	33.4 AV	54.0	-20.6	2.28 H	272	21.6	11.8

Remarks:

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

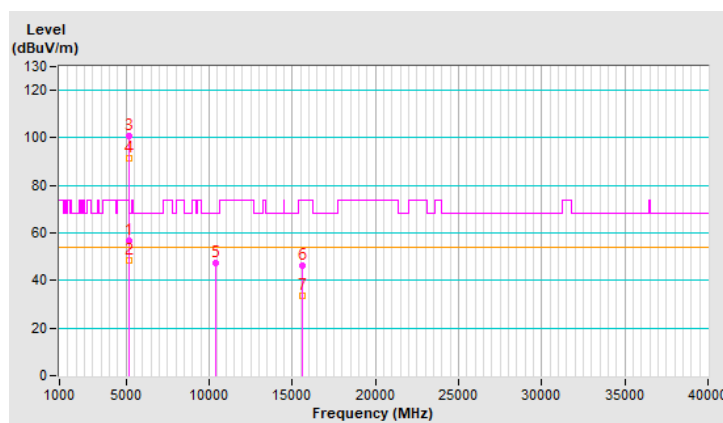


RF Mode	TX 802.11ac (VHT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	56.8 PK	74.0	-17.2	1.11 V	37	54.4	2.4
2	5150.00	48.7 AV	54.0	-5.3	1.11 V	37	46.3	2.4
3	*5190.00	100.6 PK			1.11 V	37	98.4	2.2
4	*5190.00	91.2 AV			1.11 V	37	89.0	2.2
5	#10380.00	47.3 PK	68.2	-20.9	1.41 V	302	35.5	11.8
6	15570.00	46.2 PK	74.0	-27.8	1.90 V	8	34.4	11.8
7	15570.00	33.5 AV	54.0	-20.5	1.90 V	8	21.7	11.8

Remarks:

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

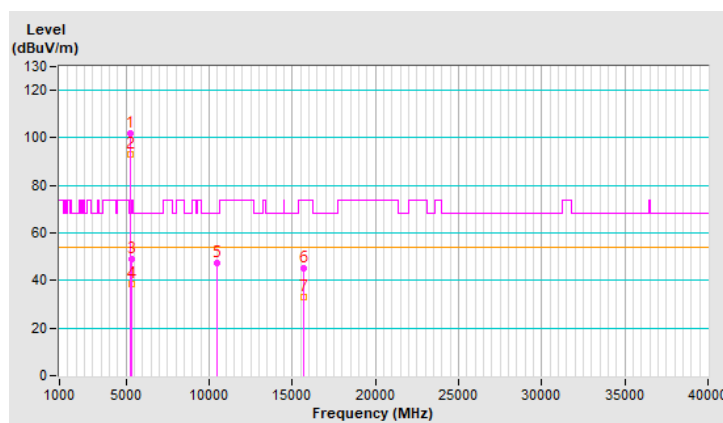


RF Mode	TX 802.11ac (VHT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	102.1 PK			1.11 H	95	100.1	2.0
2	*5230.00	93.0 AV			1.11 H	95	91.0	2.0
3	5350.00	49.2 PK	74.0	-24.8	1.11 H	95	47.2	2.0
4	5350.00	38.7 AV	54.0	-15.3	1.11 H	95	36.7	2.0
5	#10460.00	47.3 PK	68.2	-20.9	1.63 H	152	35.3	12.0
6	15690.00	45.4 PK	74.0	-28.6	2.29 H	284	33.5	11.9
7	15690.00	33.0 AV	54.0	-21.0	2.29 H	284	21.1	11.9

Remarks:

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

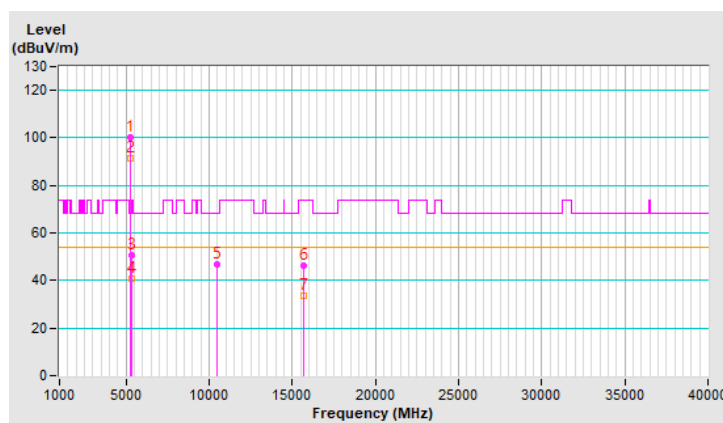


RF Mode	TX 802.11ac (VHT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	100.3 PK			3.33 V	38	98.3	2.0
2	*5230.00	91.3 AV			3.33 V	38	89.3	2.0
3	5350.00	50.9 PK	74.0	-23.1	3.33 V	38	48.9	2.0
4	5350.00	40.5 AV	54.0	-13.5	3.33 V	38	38.5	2.0
5	#10460.00	46.7 PK	68.2	-21.5	1.39 V	319	34.7	12.0
6	15690.00	46.1 PK	74.0	-27.9	1.94 V	4	34.2	11.9
7	15690.00	33.5 AV	54.0	-20.5	1.94 V	4	21.6	11.9

Remarks:

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

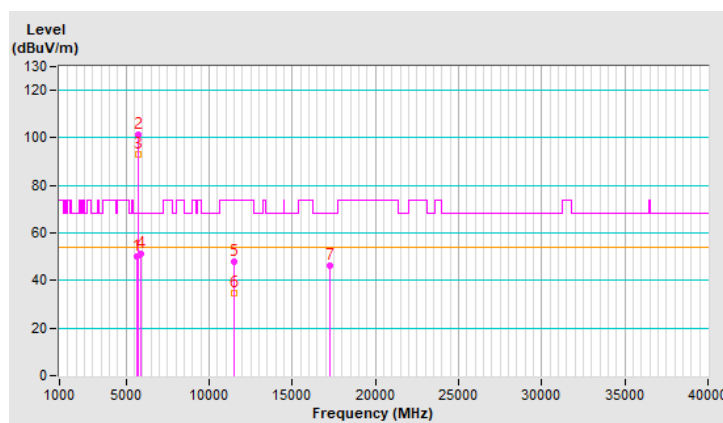


RF Mode	TX 802.11ac (VHT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5641.27	50.0 PK	68.2	-18.2	1.13 H	96	47.7	2.3
2	*5755.00	101.5 PK			1.13 H	96	98.9	2.6
3	*5755.00	93.3 AV			1.13 H	96	90.7	2.6
4	#5929.03	51.1 PK	68.2	-17.1	1.13 H	96	48.2	2.9
5	11510.00	47.8 PK	74.0	-26.2	1.61 H	166	35.4	12.4
6	11510.00	34.7 AV	54.0	-19.3	1.61 H	166	22.3	12.4
7	#17265.00	46.0 PK	68.2	-22.2	2.19 H	278	29.2	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.

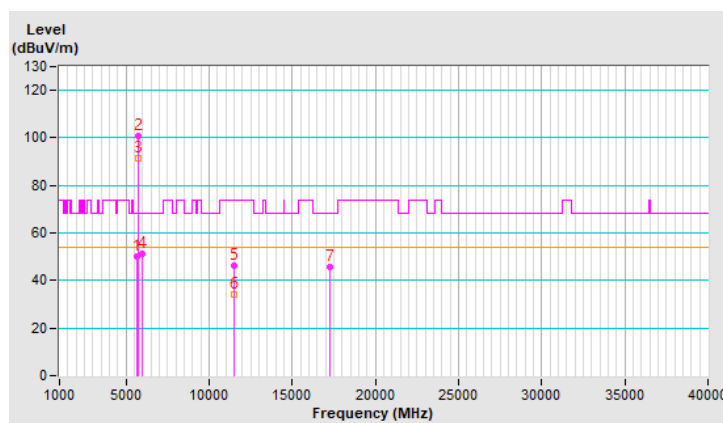


RF Mode	TX 802.11ac (VHT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	#5621.08	50.0 PK	68.2	-18.2	1.40 V	27	47.8	2.2
2	*5755.00	100.8 PK			1.40 V	27	98.2	2.6
3	*5755.00	91.4 AV			1.40 V	27	88.8	2.6
4	#5964.47	51.3 PK	68.2	-16.9	1.40 V	27	48.4	2.9
5	11510.00	46.1 PK	74.0	-27.9	1.45 V	309	33.7	12.4
6	11510.00	34.1 AV	54.0	-19.9	1.45 V	309	21.7	12.4
7	#17265.00	45.9 PK	68.2	-22.3	1.90 V	12	29.1	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.

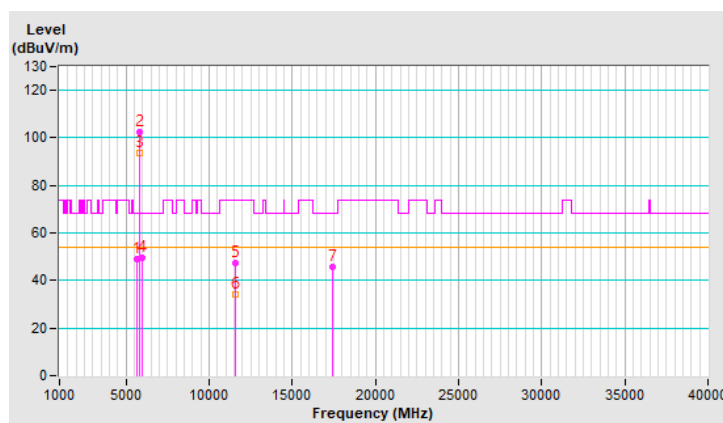


RF Mode	TX 802.11ac (VHT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.50	48.9 PK	68.2	-19.3	1.18 H	95	46.6	2.3
2	*5795.00	102.3 PK			1.18 H	95	99.6	2.7
3	*5795.00	93.8 AV			1.18 H	95	91.1	2.7
4	#5978.09	49.4 PK	68.2	-18.8	1.18 H	95	46.5	2.9
5	11590.00	47.1 PK	74.0	-26.9	1.65 H	176	34.8	12.3
6	11590.00	34.3 AV	54.0	-19.7	1.65 H	176	22.0	12.3
7	#17385.00	45.5 PK	68.2	-22.7	2.30 H	280	27.7	17.8

Remarks:

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

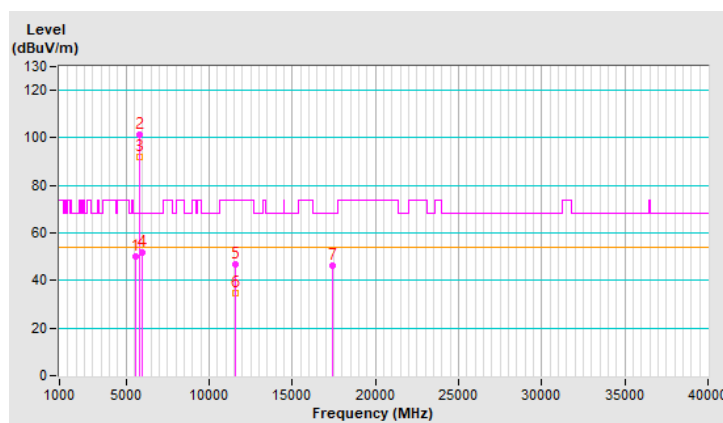


RF Mode	TX 802.11ac (VHT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5616.74	50.3 PK	68.2	-17.9	2.18 V	30	48.1	2.2
2	*5795.00	101.5 PK			2.18 V	30	98.8	2.7
3	*5795.00	92.1 AV			2.18 V	30	89.4	2.7
4	#5954.36	51.8 PK	68.2	-16.4	2.18 V	30	48.9	2.9
5	11590.00	46.9 PK	74.0	-27.1	1.45 V	296	34.6	12.3
6	11590.00	34.8 AV	54.0	-19.2	1.45 V	296	22.5	12.3
7	#17385.00	46.3 PK	68.2	-21.9	1.91 V	7	28.5	17.8

Remarks:

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

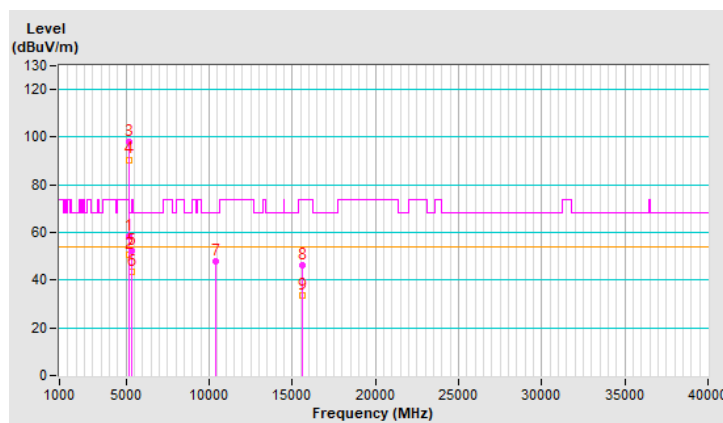


RF Mode	TX 802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 20 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.6 PK	74.0	-15.4	1.45 H	94	56.2	2.4
2	5150.00	50.8 AV	54.0	-3.2	1.45 H	94	48.4	2.4
3	*5210.00	97.8 PK			1.45 H	94	95.8	2.0
4	*5210.00	90.6 AV			1.45 H	94	88.6	2.0
5	5350.00	52.4 PK	74.0	-21.6	1.45 H	94	50.4	2.0
6	5350.00	43.6 AV	54.0	-10.4	1.45 H	94	41.6	2.0
7	#10420.00	47.8 PK	68.2	-20.4	1.62 H	155	35.8	12.0
8	15630.00	46.3 PK	74.0	-27.7	2.30 H	294	34.6	11.7
9	15630.00	33.5 AV	54.0	-20.5	2.30 H	294	21.8	11.7

Remarks:

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

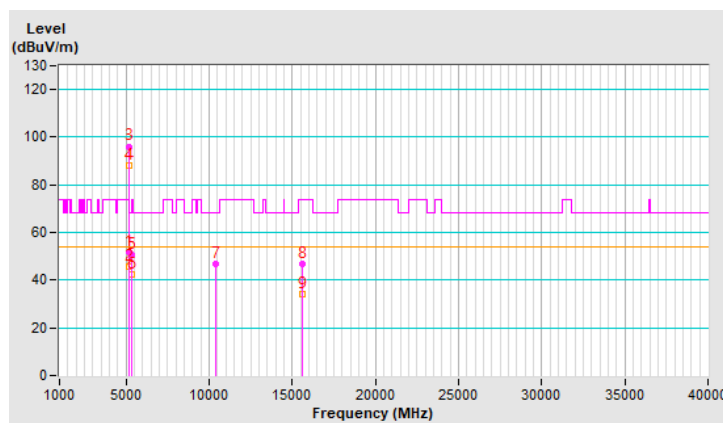


RF Mode	TX 802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 20 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	51.8 PK	74.0	-22.2	3.46 V	360	49.4	2.4
2	5150.00	45.5 AV	54.0	-8.5	3.46 V	360	43.1	2.4
3	*5210.00	96.1 PK			3.46 V	360	94.1	2.0
4	*5210.00	88.0 AV			3.46 V	360	86.0	2.0
5	5350.00	50.5 PK	74.0	-23.5	3.46 V	360	48.5	2.0
6	5350.00	42.5 AV	54.0	-11.5	3.46 V	360	40.5	2.0
7	#10420.00	46.9 PK	68.2	-21.3	1.40 V	307	34.9	12.0
8	15630.00	46.7 PK	74.0	-27.3	1.95 V	17	35.0	11.7
9	15630.00	34.0 AV	54.0	-20.0	1.95 V	17	22.3	11.7

Remarks:

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

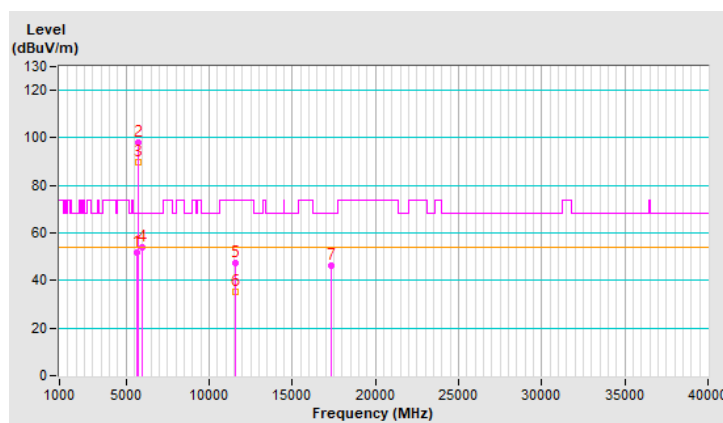


RF Mode	TX 802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 20 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.23	52.0 PK	68.2	-16.2	1.19 H	97	49.7	2.3
2	*5775.00	98.1 PK			1.19 H	97	95.5	2.6
3	*5775.00	90.0 AV			1.19 H	97	87.4	2.6
4	#5965.97	54.0 PK	68.2	-14.2	1.19 H	97	51.1	2.9
5	11550.00	47.6 PK	74.0	-26.4	1.61 H	162	35.3	12.3
6	11550.00	35.0 AV	54.0	-19.0	1.61 H	162	22.7	12.3
7	#17325.00	46.2 PK	68.2	-22.0	2.29 H	272	29.0	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.

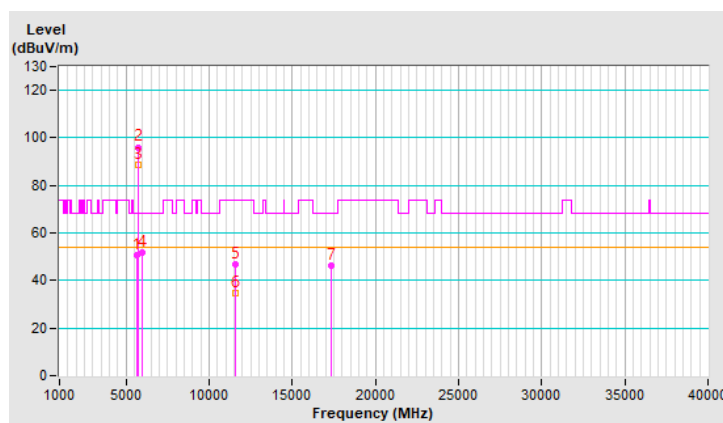


RF Mode	TX 802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 20 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

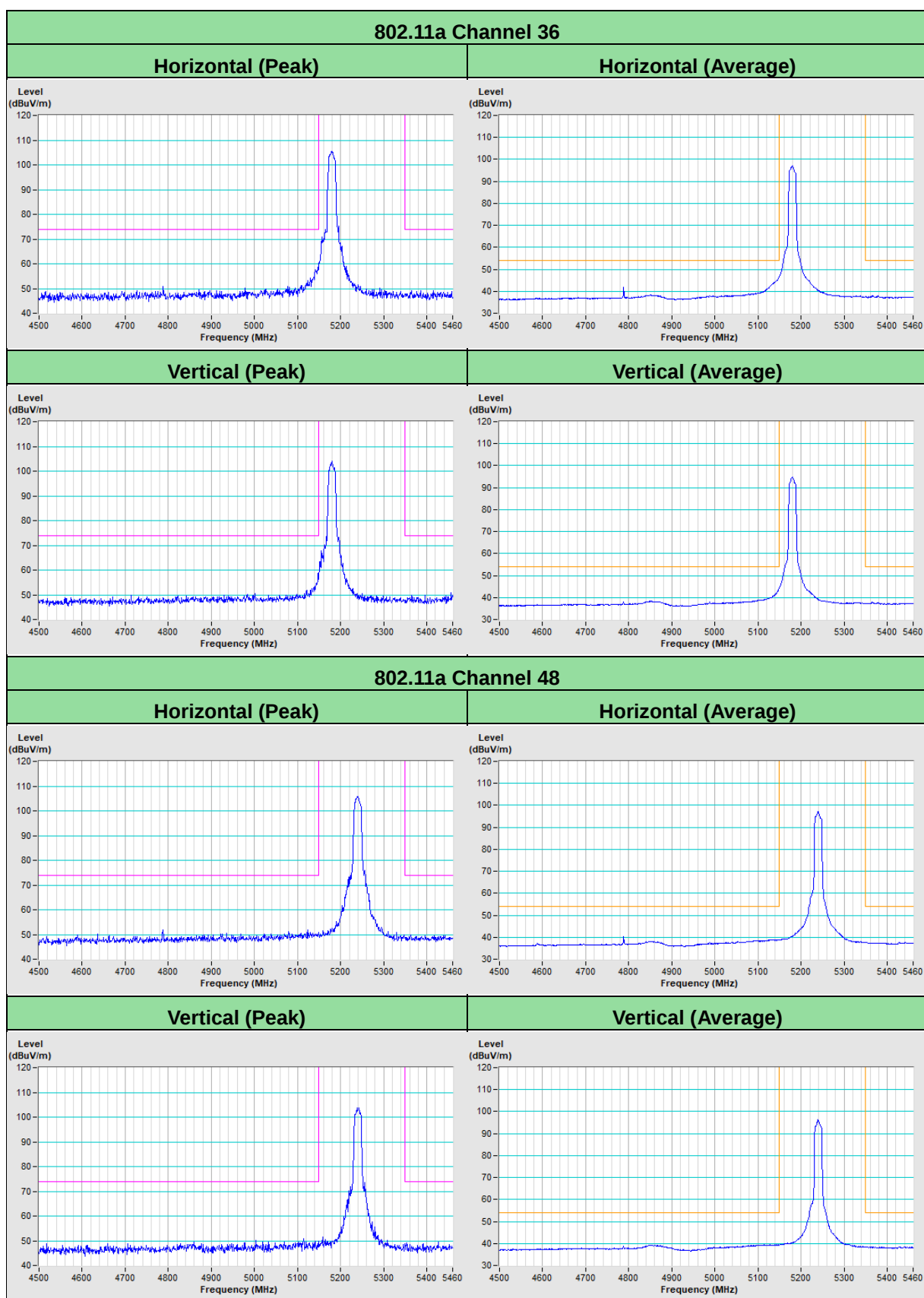
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5620.79	50.8 PK	68.2	-17.4	2.38 V	28	48.6	2.2
2	*5775.00	96.1 PK			2.38 V	28	93.5	2.6
3	*5775.00	88.8 AV			2.38 V	28	86.2	2.6
4	#5953.61	51.7 PK	68.2	-16.5	2.38 V	28	48.8	2.9
5	11550.00	47.0 PK	74.0	-27.0	1.38 V	296	34.7	12.3
6	11550.00	34.6 AV	54.0	-19.4	1.38 V	296	22.3	12.3
7	#17325.00	46.1 PK	68.2	-22.1	1.85 V	9	28.9	17.2

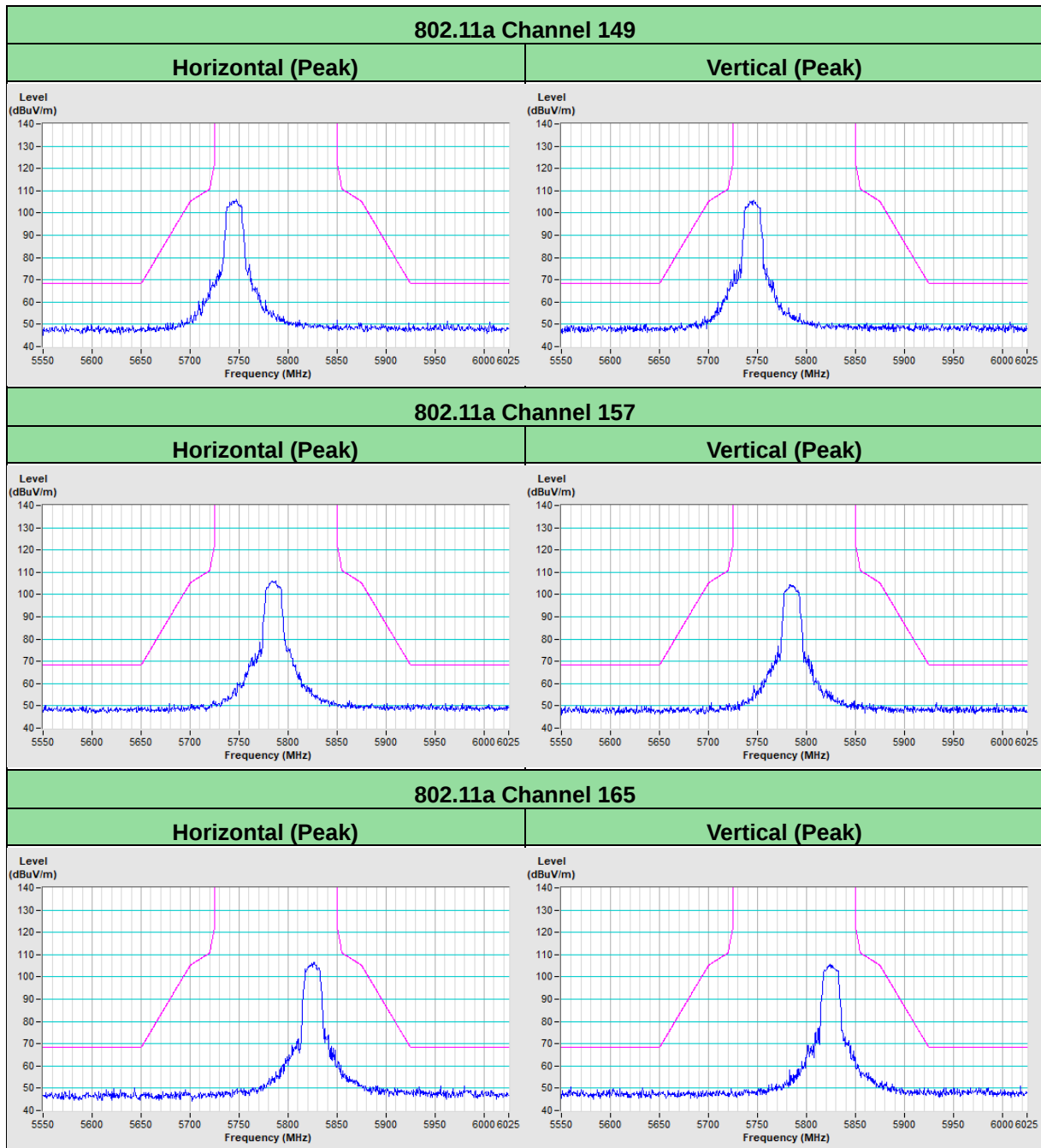
Remarks:

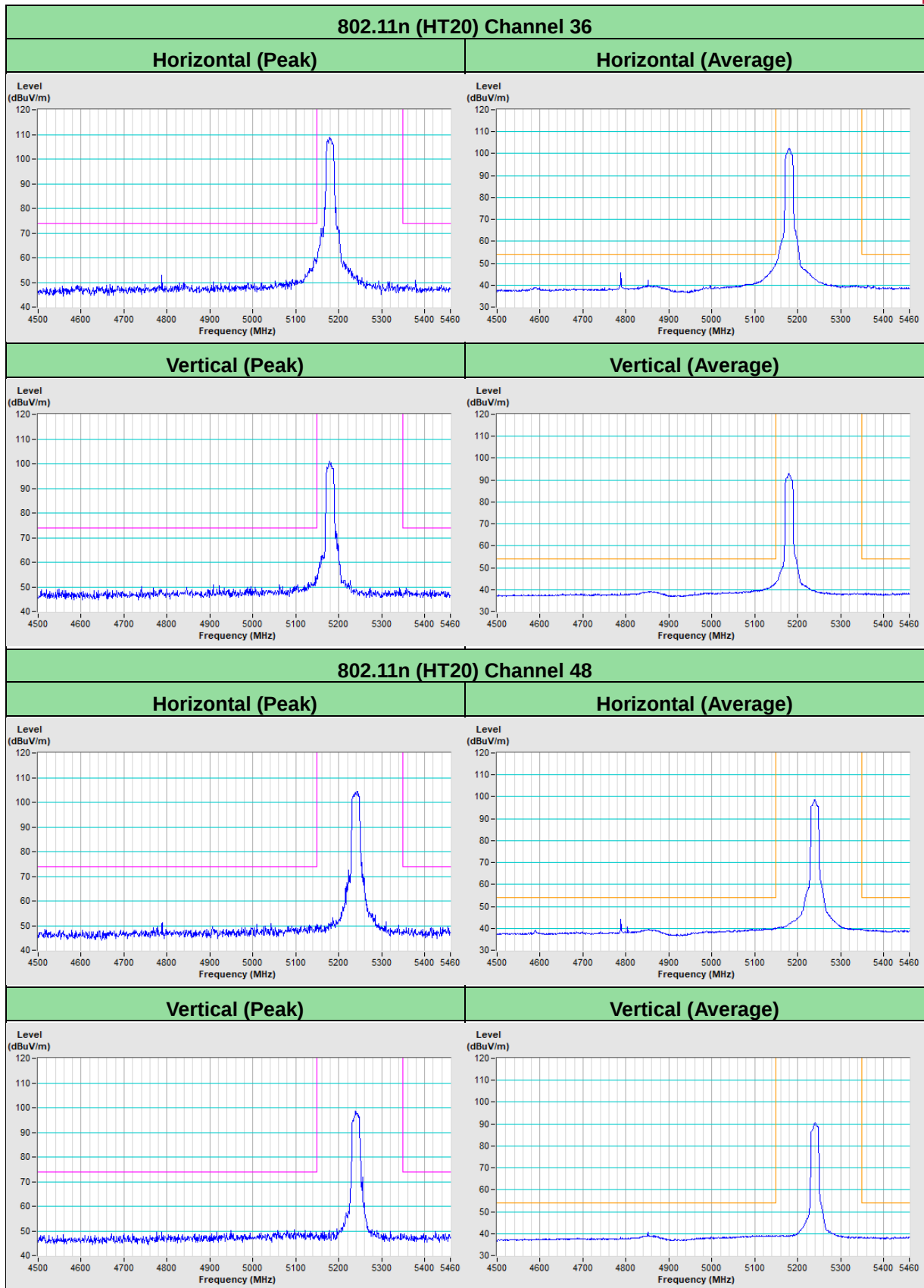
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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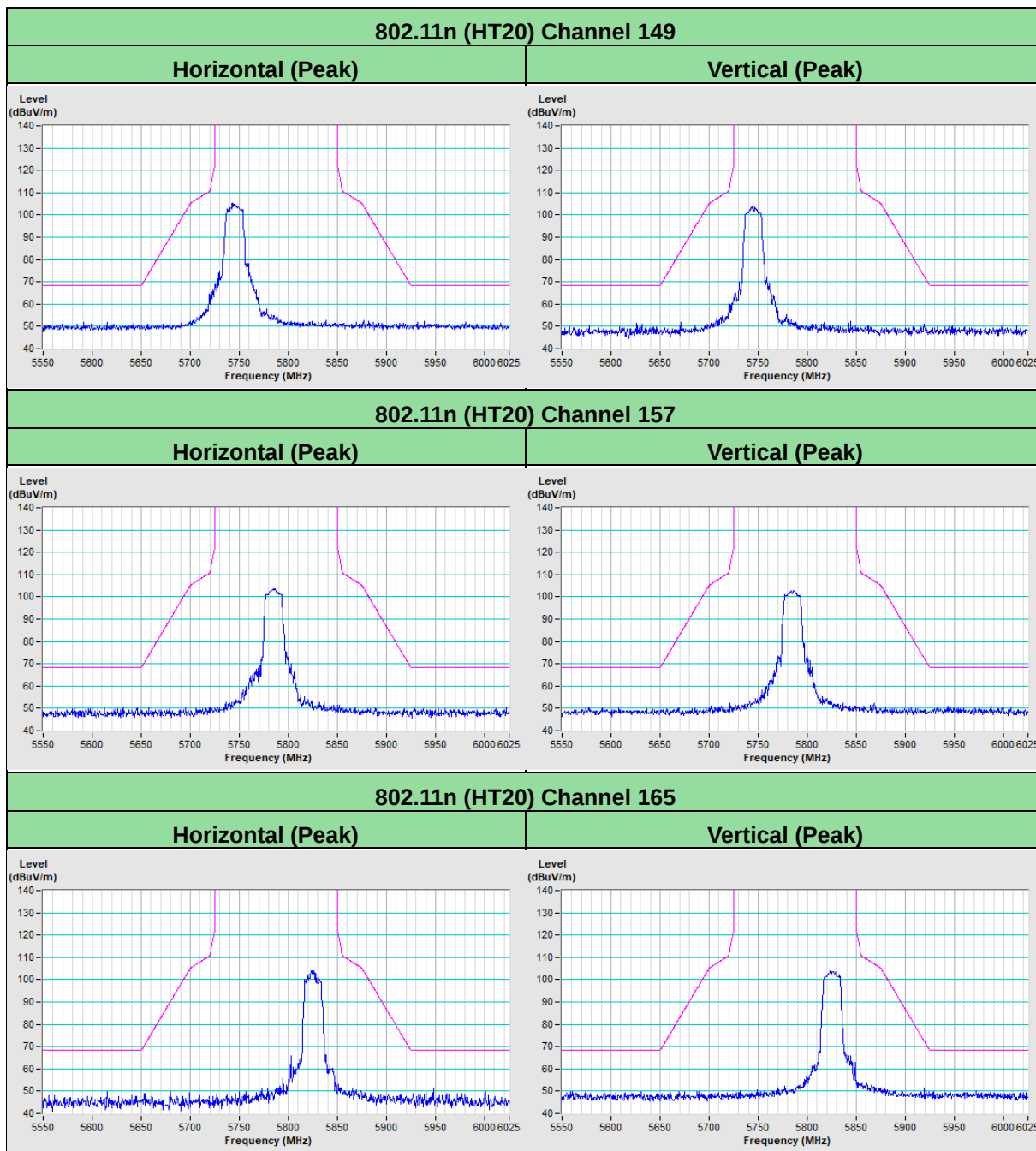


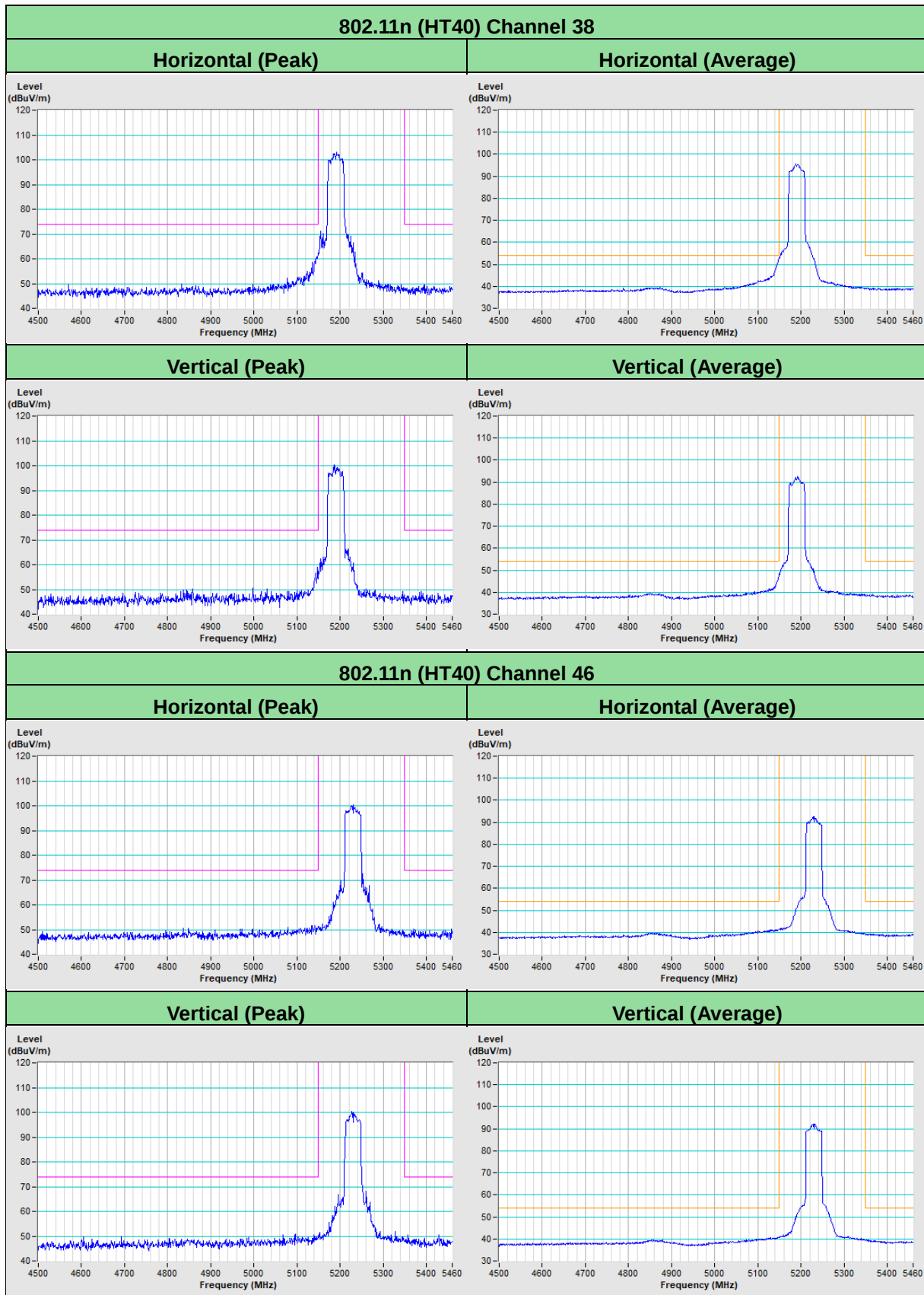
Plot of Band Edge

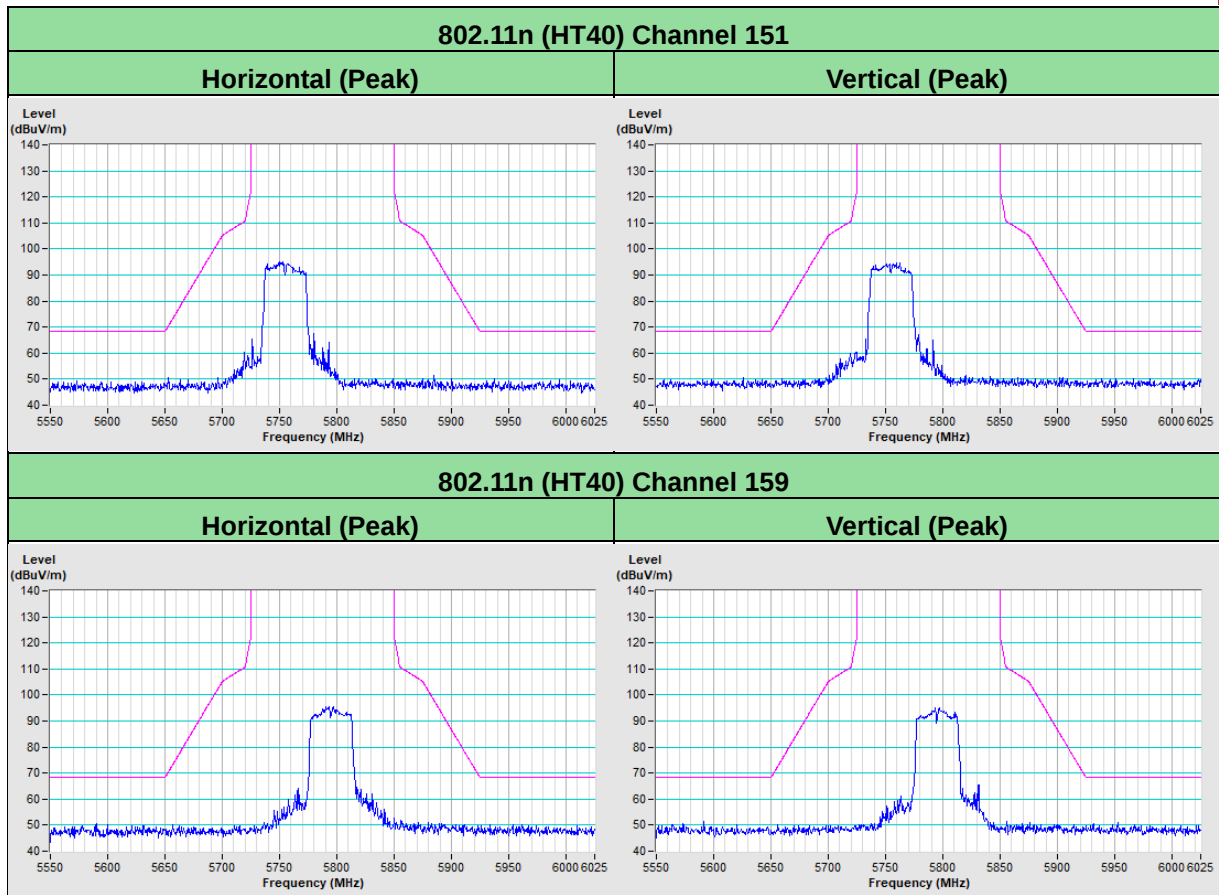


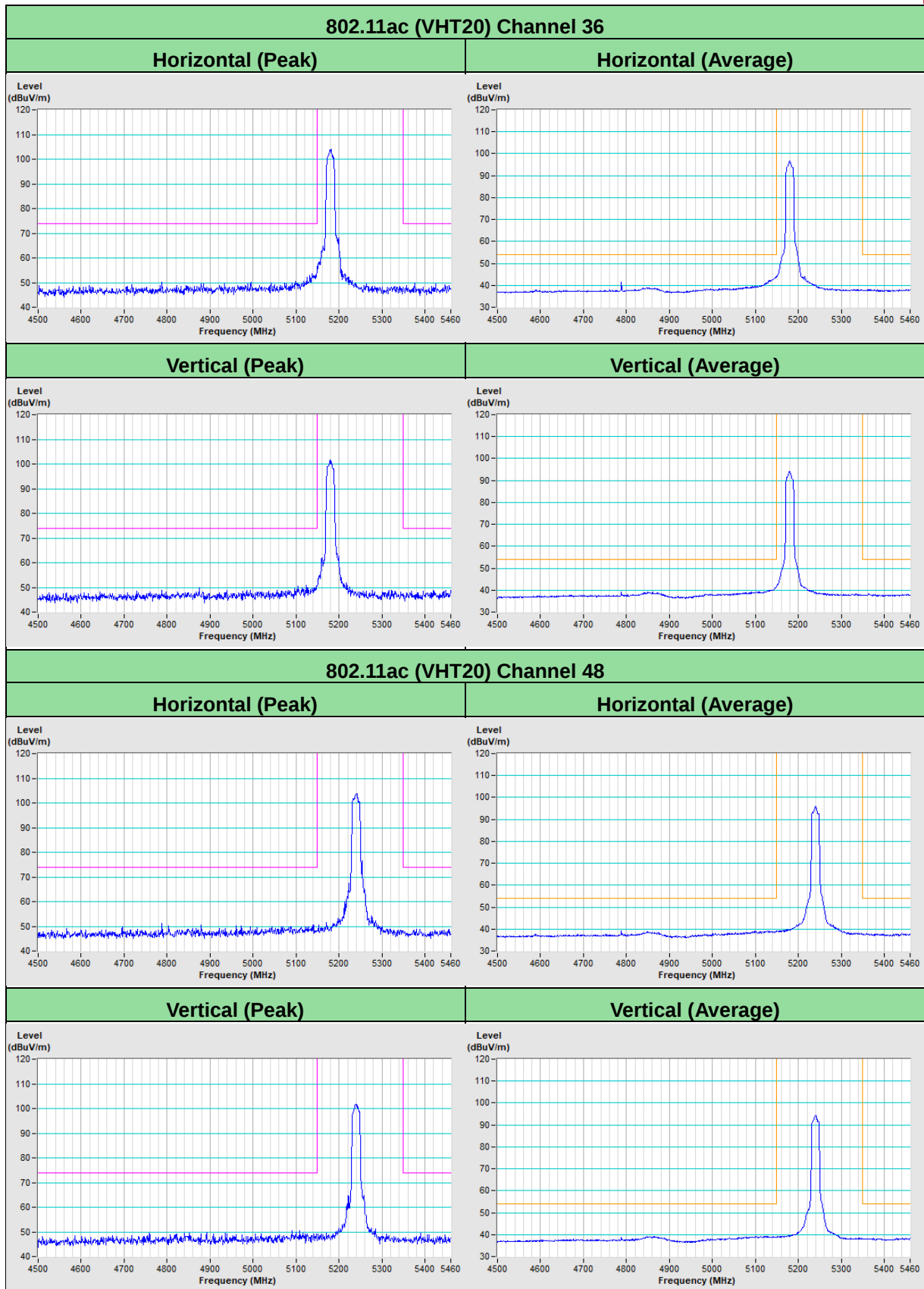


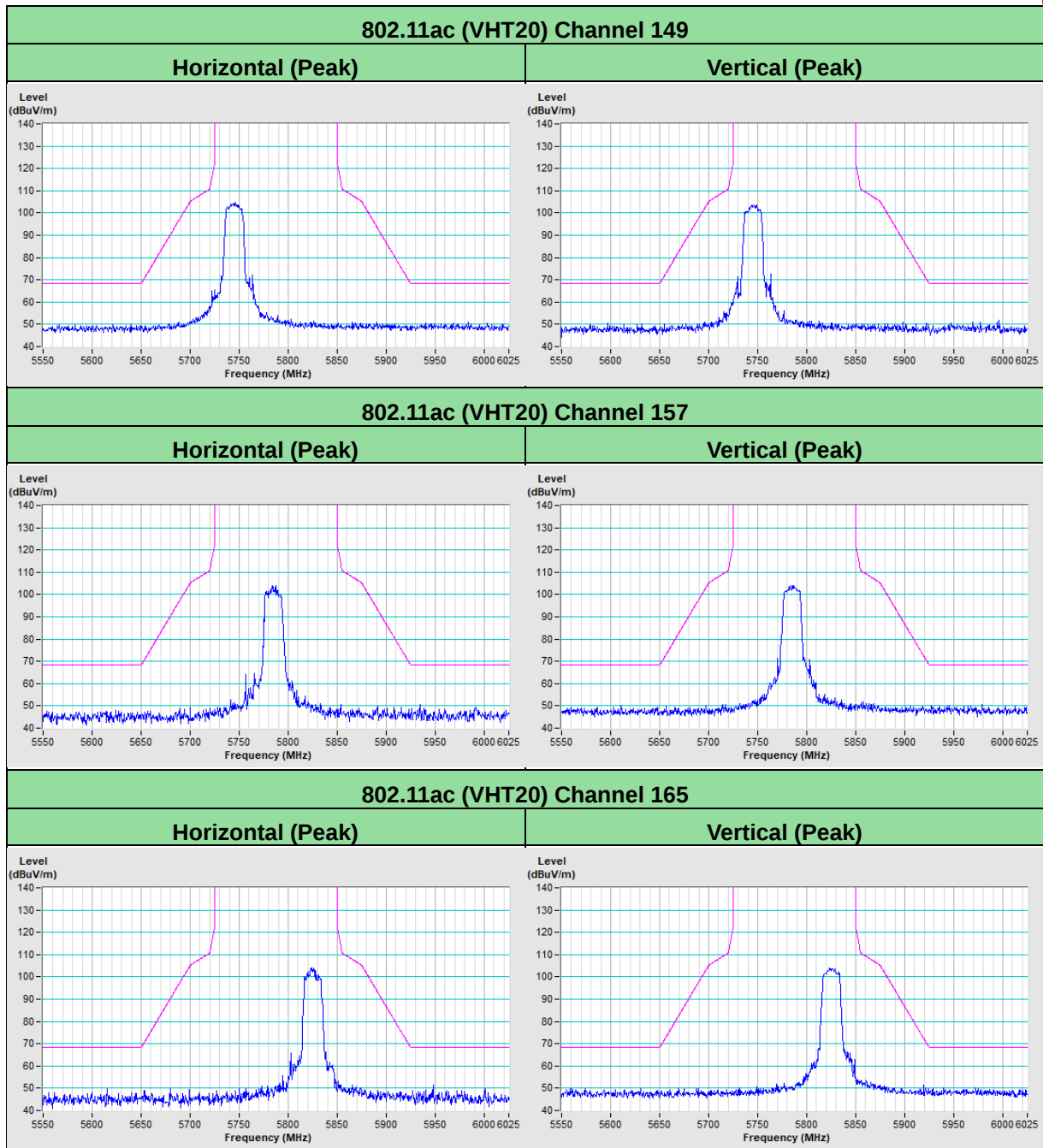


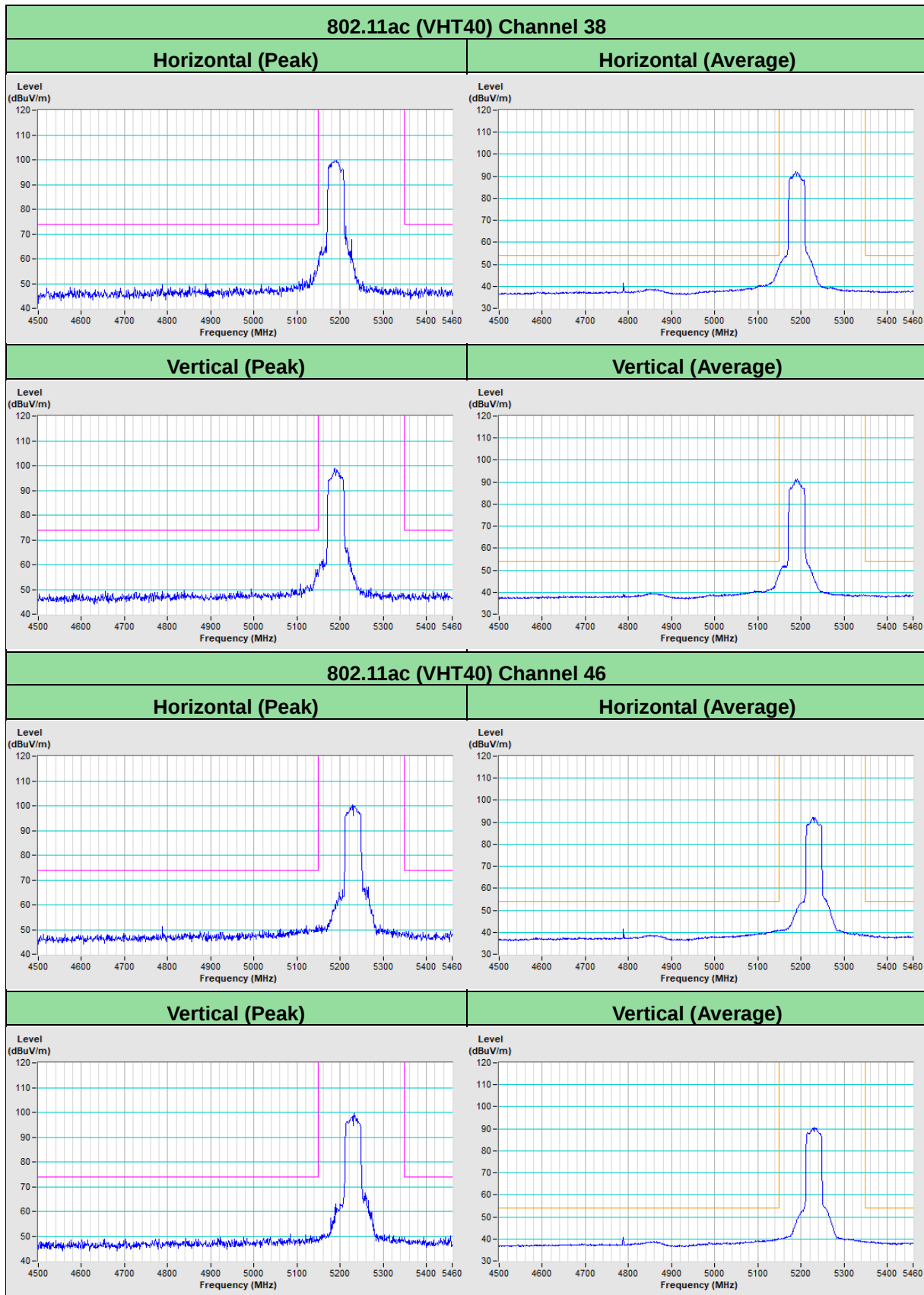


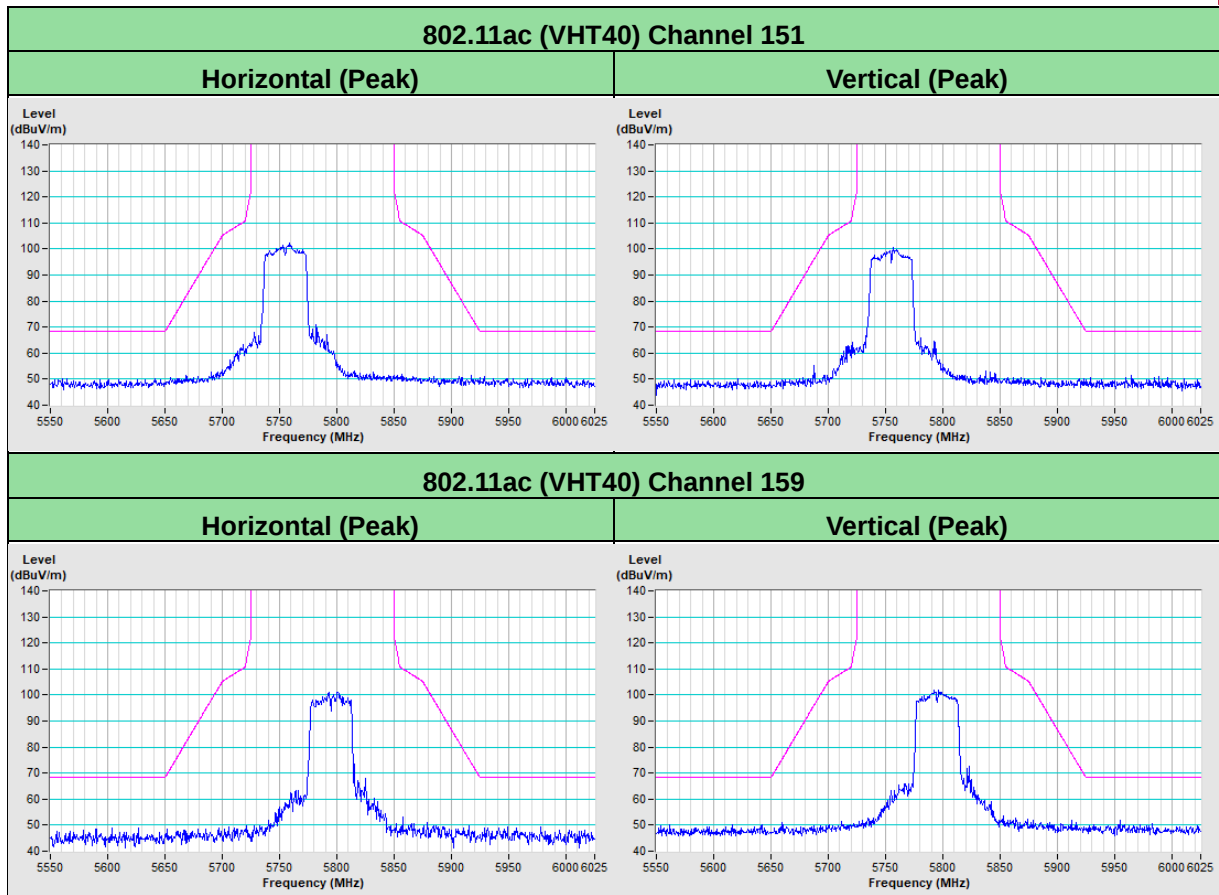


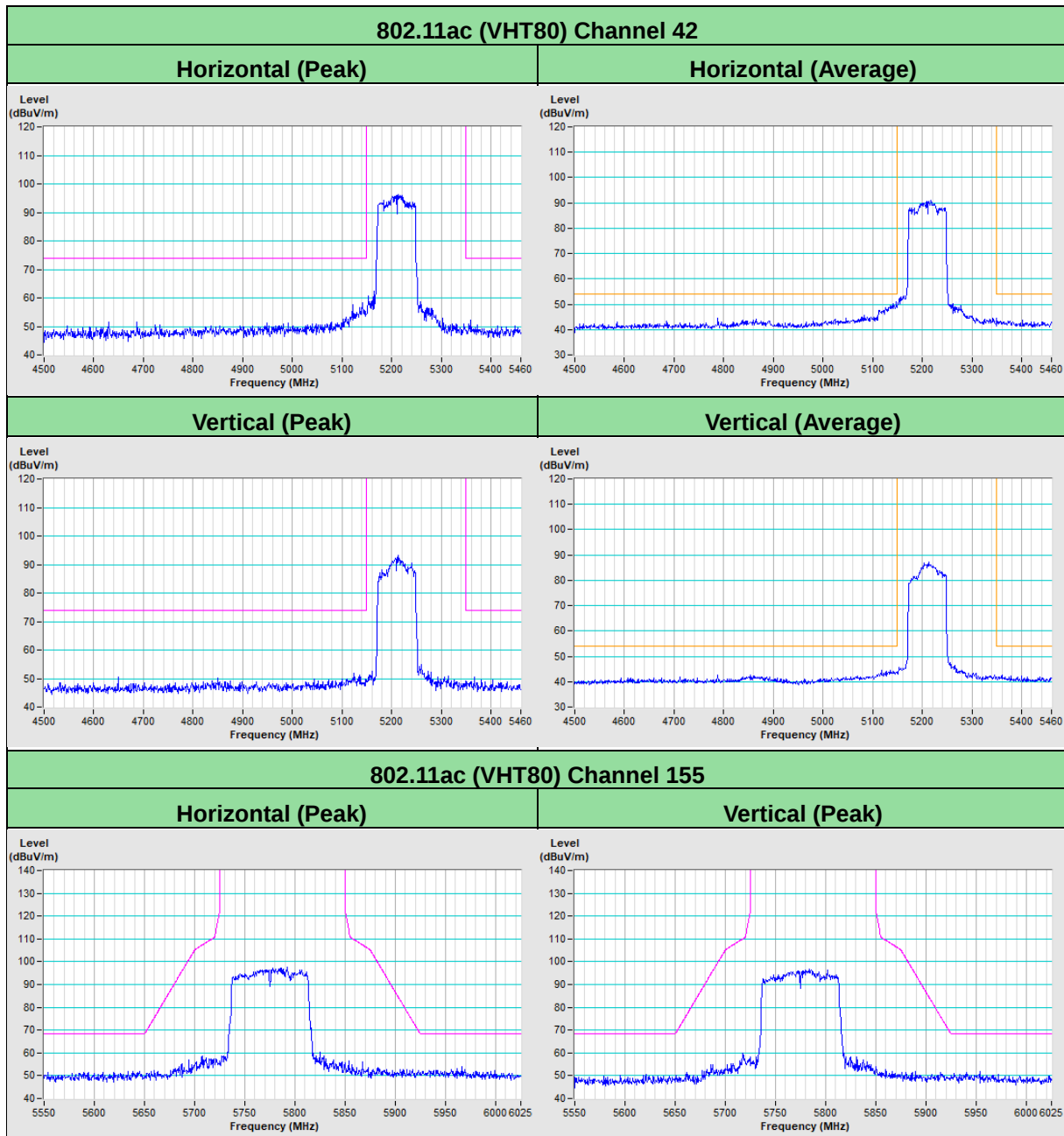












8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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

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

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