

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Report No.: RFBAOZ-WTW-P22040585-1
FCC ID: 2AUIUWYZECOP
Model No.: WYZECOP
Received Date: 2022/4/19
Test Date: 2022/5/30 ~ 2022/9/20
Issued Date: 2023/1/11
Applicant: Wyze Labs, Inc
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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory
Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____, **Date:** 2023/1/11
May Chen / Manager

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Prepared by : Vivian Huang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBAOZ-WTW-P22040585-1	Original release.	2023/1/11

1 Certificate

Product: Wyze Battery Cam Pro

Brand: WYZE

Test Model: WYZECOP

Sample Status: Engineering sample

Applicant: Wyze Labs, Inc

Test Date: 2022/5/30 ~ 2022/9/20

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)(2)	26 dB Bandwidth	-	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1/2/3)	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 -9.25 dB at 11.94922 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -8.9 dB at 30.59 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.1 dB at 16740.00, 17235.00, 5150.00, 5350.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.4 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 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	Wyze Battery Cam Pro
Brand	WYZE
Test Model	WYZECOP
Status of EUT	Engineering sample
Power Supply Rating	3.7 Vdc from battery or 5 Vdc from USB interface
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 72.2 Mbps
Operating Frequency	5.18 GHz ~ 5.24 GHz 5.26 GHz ~ 5.32 GHz 5.5 ~ 5.7 GHz 5.745 GHz ~ 5.825 GHz
Number of Channel	802.11a, 802.11n (HT20): 24
Output Power	5.18 GHz ~ 5.24 GHz : 173.38 mW (22.39 dBm) 5.26 GHz ~ 5.32 GHz : 196.336 mW (22.93 dBm) 5.5 GHz ~ 5.7 GHz : 197.697 mW (22.96 dBm) 5.745 GHz ~ 5.825 GHz : 110.408 mW (20.43 dBm)
EUT Category	Client Device

Note:

1. The EUT has below radios as following table:

Radio 1	Radio 2
WLAN 2.4GHz / WLAN 5GHz / Bluetooth	24GHz

2. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	24GHz
2	WLAN 5GHz	24GHz
3	Bluetooth	24GHz

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

3. The EUT uses following accessories.

Battery		
Brand	Model	Specification
WYZE	WBAT1	Power Rating : 3.7V, 6200mAh, 22.94Wh
USB Cable		
Brand	Model	Specification
NETWORK GIANT LIMITED	A210017	Signal Line : 0.6m, Shielded

4. The above EUT information is declared by manufacturer and for more detailed features description, please refers 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 Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (cm)
1	2.43	2.4~2.4835	Dipole	ipex(MHF)	4
	3.48	5.15~5.85			
2	2	24~24.25	Array	None	-

*The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

2. The EUT incorporates a SISO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	1TX	1RX
802.11n (HT20)	1TX	1RX

3.3 Channel List

FOR 5180 ~ 5320 MHz

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

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

FOR 5500 ~ 5700MHz

11 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

FOR 5745 ~ 5825 MHz:

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

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. For AC Power Conducted Emissions items: Laptop / AC Adapter. Pre-scan these modes and find the worst case as a representative test condition. 2. For Unwanted Emissions Below 1GHz items: Battery/ AC Adapter. Only these modes as a representative test condition.
Worst Case:	1. For AC Power Conducted Emissions items the Laptop mode is the worst case of power supply. 2. For Unwanted Emissions Below 1GHz items the AC Adapter mode is the worst case of power supply. 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
AC Power Conducted Emissions	802.11a	116	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11a	116	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
RF Output Power / Power Spectral Density	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
Occupied Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
26 dB Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
6 dB Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11n (HT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
Frequency Stability	802.11a	36	un-modulation	-

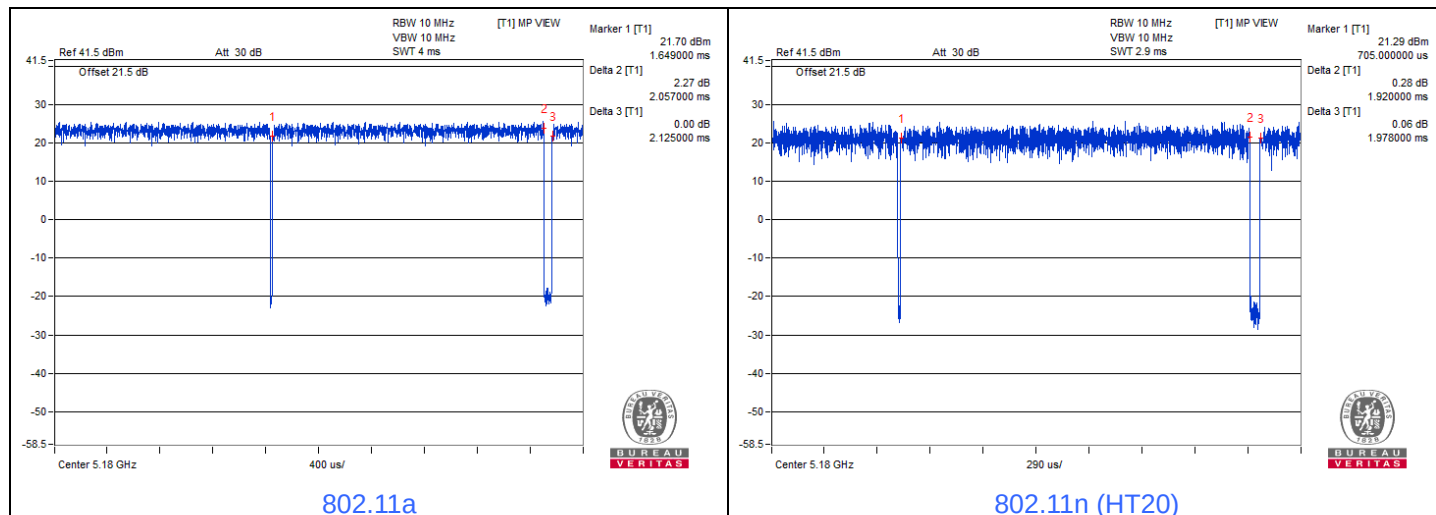
3.5 Duty Cycle of Test Signal

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

Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11a: Duty cycle = $2.057 \text{ ms} / 2.125 \text{ ms} \times 100\% = 96.8\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.14 \text{ dB}$

802.11n (HT20): Duty cycle = $1.92 \text{ ms} / 1.978 \text{ ms} \times 100\% = 97.1\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.13 \text{ dB}$

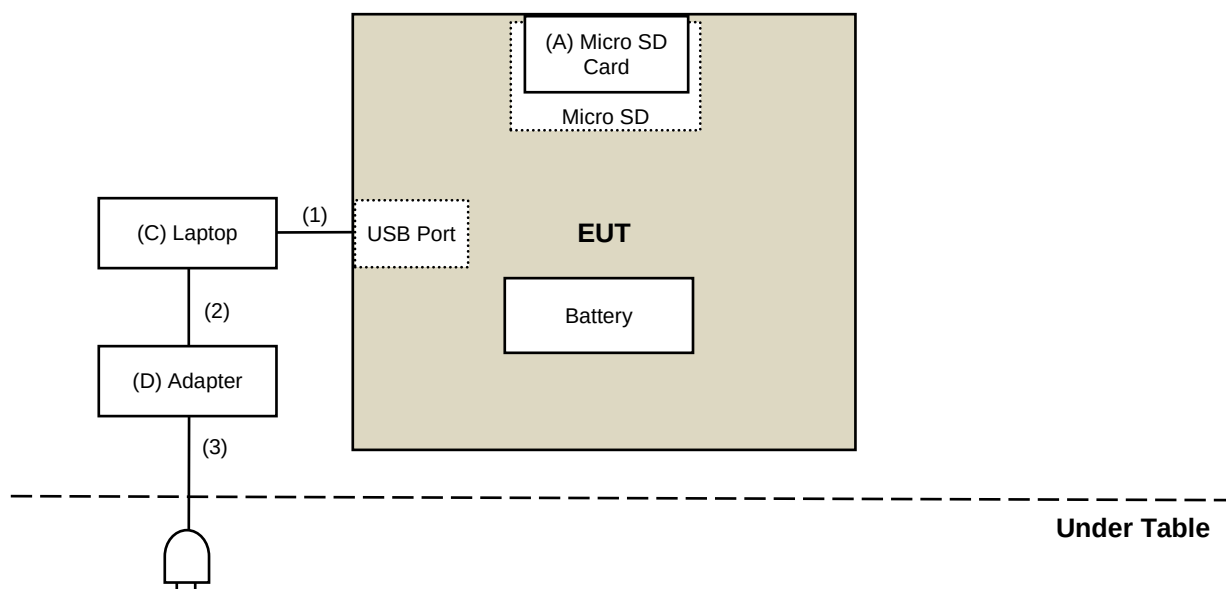


3.6 Test Program Used and Operation Descriptions

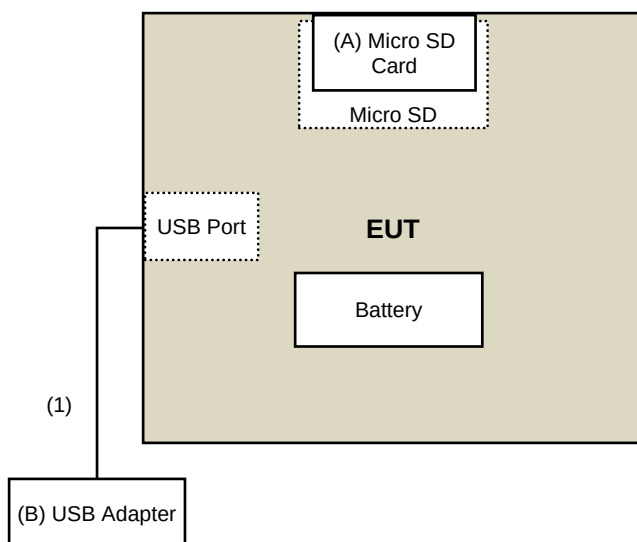
Controlling software (AmebaPRO2 mptool 1v9.3) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

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	Micro SD Card	ADATA	N/A	N/A	N/A	Provided by Lab
B	USB Adapter	ASUS	EXA1205UA	N/A	N/A	Provided by Lab
C	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab
D	Adapter	Lenovo	ADLX45YLC3D	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	0.6	Yes	0	Supplied by applicant
2	DC Cable	1	1.8	No	0	Provided by Lab
3	AC Cable	1	1	No	0	Provided by Lab

4 Test Instruments

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

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/30

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Power Meter Anritsu	ML2495A	1529002	2021/6/21	2022/6/20
Pulse Power Sensor Anritsu	MA2411B	1726434	2021/6/21	2022/6/20
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/30

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
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	2021/6/2	2022/6/1

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/30

4.7 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	2021/9/25	2022/9/24
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: 2022/9/20

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2021/9/23	2022/9/22
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
MXE EMI Receiver(20 Hz to 44 GHz) Keysight	N9038A	MY54450088	2022/7/11	2023/7/10
Pre_Amplifier Agilent	8447D	2944A10636	2022/3/19	2023/3/18
Pre_Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	2021/10/19	2022/10/18
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
		LOOPCAB-002	2022/1/6	2023/1/5
RF Coaxial Cable COMMATE/PEWC	8D	966-4-1	2022/3/8	2023/3/7
		966-3-2	2022/2/26	2023/2/25
		966-3-3	2022/2/26	2023/2/25
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-361	2021/10/26	2022/10/25

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/9/19

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Horn Antenna Schwarzbeck	BBHA9120-D	9120D-406	2021/11/14	2022/11/13
	BBHA 9170	9170-739	2021/11/14	2022/11/13
MXE EMI Receiver(20 Hz to 44 GHz) Keysight	N9038A	MY54450088	2021/7/6	2022/7/5
Pre_Amplifier EMCI	EMC12630SE	980384	2022/1/10	2023/1/9
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable EMCI	EMC104-SM-SM-6000	210201	2022/5/10	2023/5/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC104-SM-SM-1500	180504	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180601	2022/6/6	2023/6/5
	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9030A	MY54490679	2021/7/9	2022/7/8

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/6/18 ~ 2022/6/20

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

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

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

*B is the 26 dB emission bandwidth in megahertz

5.3 Power Spectral Density

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

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

5.4 6 dB Bandwidth

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

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

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

5.7 AC Power Conducted Emissions

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

Notes:

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

5.8 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.9 Unwanted Emissions above 1 GHz

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

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

Notes:

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

Limits of unwanted emission out of the restricted bands

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

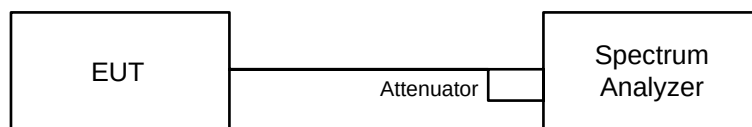
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

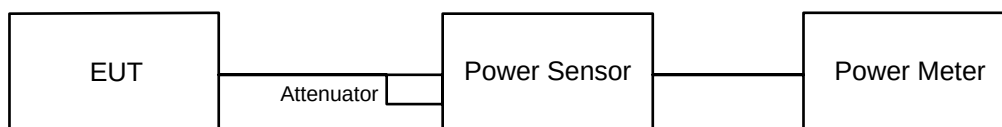


6.1.2 Test Procedure

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

6.2 RF Output Power

6.2.1 Test Setup

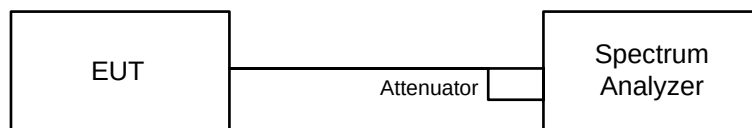


6.2.2 Test Procedure

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

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-2

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

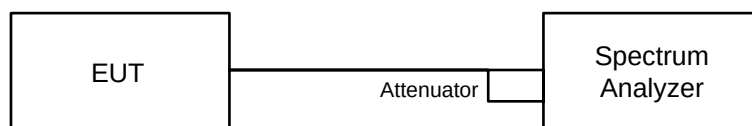
For specified measurement bandwidth 500 kHz:

Method SA-2

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

6.4 6 dB Bandwidth

6.4.1 Test Setup

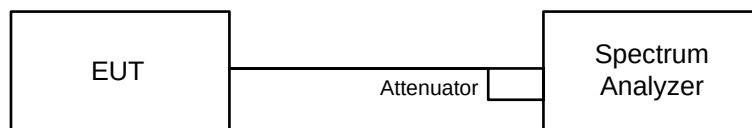


6.4.2 Test Procedure

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

6.5 Occupied Bandwidth

6.5.1 Test Setup

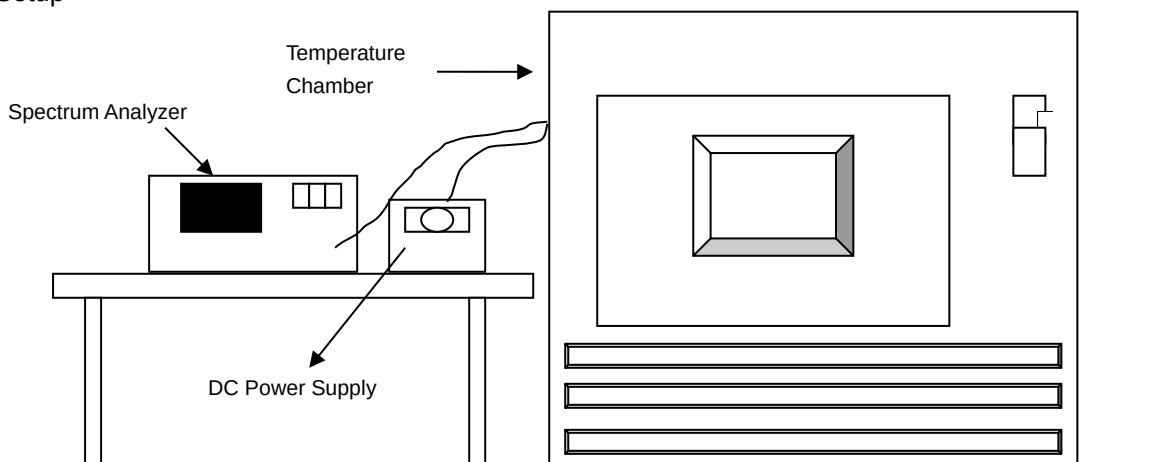


6.5.2 Test Procedure

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

6.6 Frequency Stability

6.6.1 Test Setup

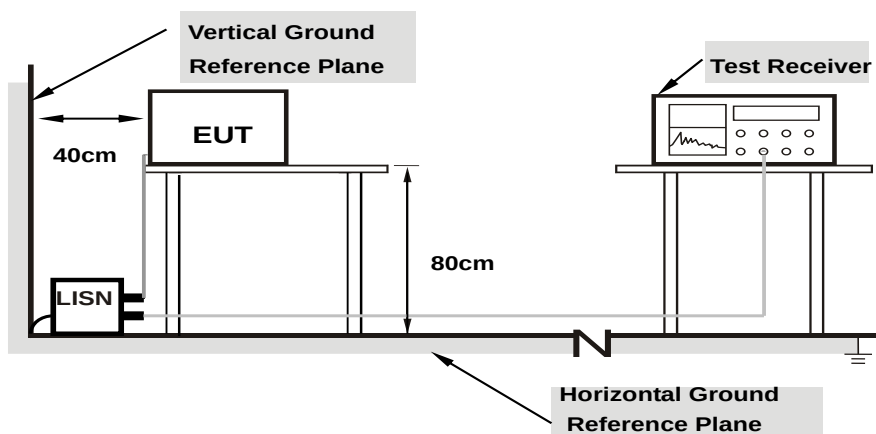


6.6.2 Test Procedure

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

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



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

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

6.7.2 Test Procedure

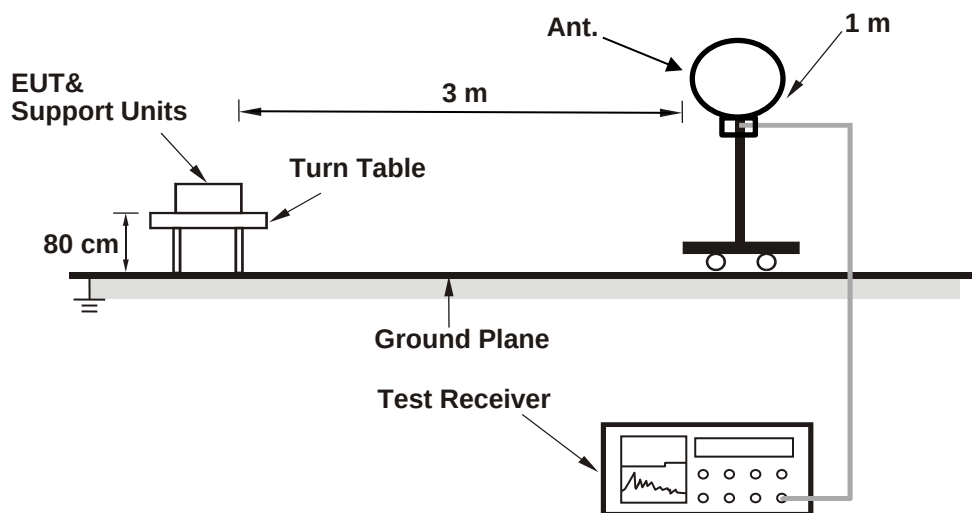
- The EUT was placed on a 0.8 meter to the top of rotating table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another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

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

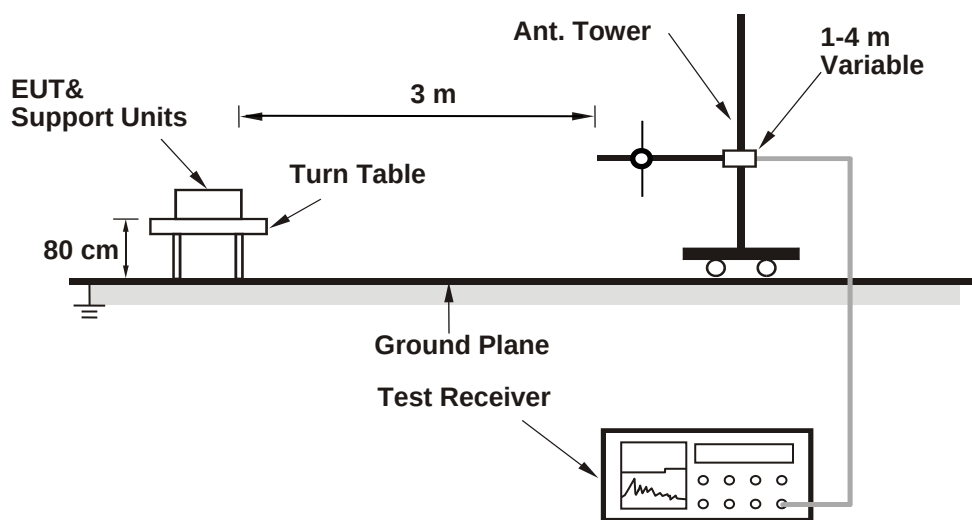
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



6.8.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

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

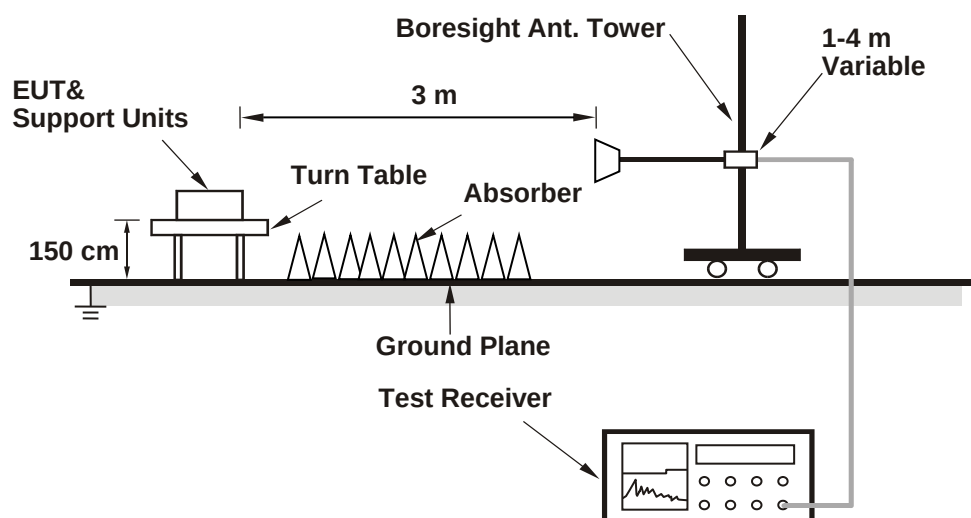
Notes:

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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup

For Radiated emission above 1 GHz



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

6.9.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 26 dB Bandwidth

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	45.28
60	5300	45.12
64	5320	28.82
100	5500	25.32
116	5580	40.59
140	5700	20.24

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	45.28	27.55	>	24
60	5300	45.12	27.54	>	24
64	5320	28.82	25.59	>	24
100	5500	25.32	25.03	>	24
116	5580	40.59	27.08	>	24
140	5700	20.24	24.06	>	24

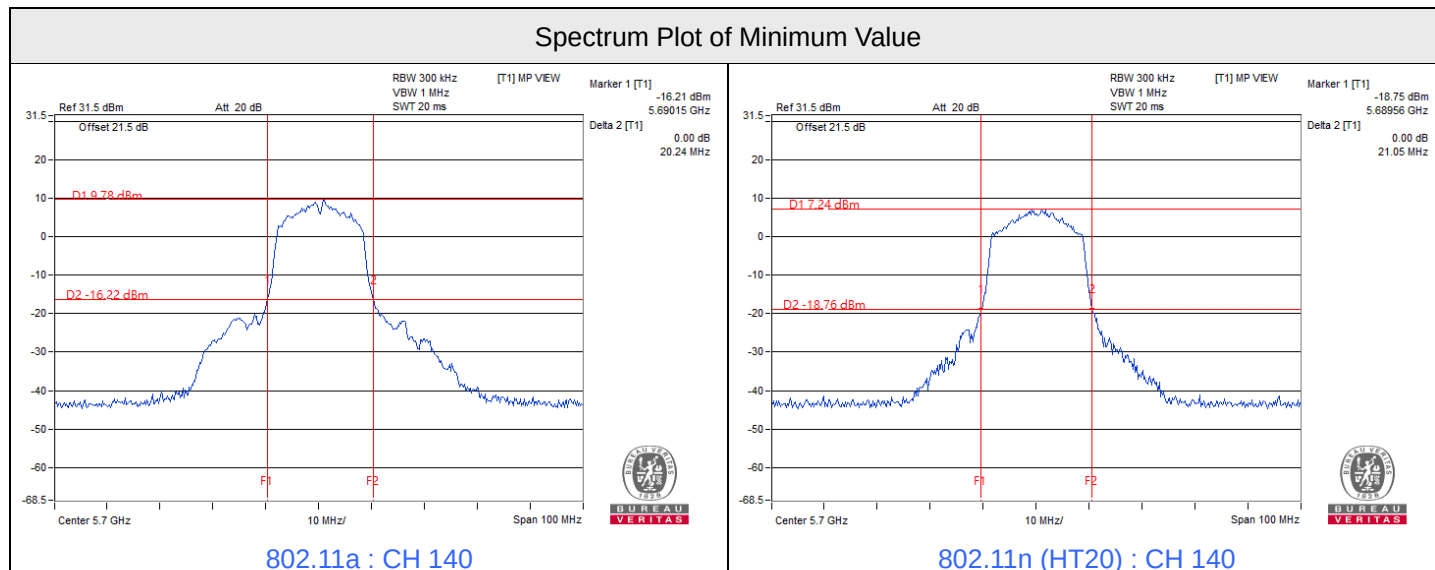
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11n (HT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	42.09
60	5300	42.56
64	5320	36.28
100	5500	29.68
116	5580	41.15
140	5700	21.05

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	42.09	27.24	>	24
60	5300	42.56	27.29	>	24
64	5320	36.28	26.59	>	24
100	5500	29.68	25.72	>	24
116	5580	41.15	27.14	>	24
140	5700	21.05	24.23	>	24

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



7.2 RF Output Power

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	85.507	19.32	24	Pass
40	5200	173.38	22.39	24	Pass
48	5240	149.968	21.76	24	Pass
52	5260	196.336	22.93	24	Pass
60	5300	169.044	22.28	24	Pass
64	5320	78.163	18.93	24	Pass
100	5500	63.68	18.04	24	Pass
116	5580	197.697	22.96	24	Pass
140	5700	35.075	15.45	24	Pass
149	5745	93.756	19.72	30	Pass
157	5785	95.28	19.79	30	Pass
165	5825	110.408	20.43	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-3, the antenna gain is 3.48 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	72.946	18.63	24	Pass
40	5200	160.325	22.05	24	Pass
48	5240	131.522	21.19	24	Pass
52	5260	192.752	22.85	24	Pass
60	5300	148.936	21.73	24	Pass
64	5320	69.984	18.45	24	Pass
100	5500	54.576	17.37	24	Pass
116	5580	194.536	22.89	24	Pass
140	5700	28.054	14.48	24	Pass
149	5745	86.896	19.39	30	Pass
157	5785	95.94	19.82	30	Pass
165	5825	104.232	20.18	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-3, the antenna gain is 3.48 dBi < 6 dBi, so the output power limit shall not be reduced.

7.3 Power Spectral Density

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	8.36	0.14	8.50	11.00	Pass
40	5200	10.48	0.14	10.62	11.00	Pass
48	5240	8.86	0.14	9.00	11.00	Pass
52	5260	9.39	0.14	9.53	11.00	Pass
60	5300	10.17	0.14	10.31	11.00	Pass
64	5320	6.35	0.14	6.49	11.00	Pass
100	5500	6.28	0.14	6.42	11.00	Pass
116	5580	9.06	0.14	9.20	11.00	Pass
140	5700	4.62	0.14	4.76	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.48 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	6.12	0.13	6.25	11.00	Pass
40	5200	9.89	0.13	10.02	11.00	Pass
48	5240	8.75	0.13	8.88	11.00	Pass
52	5260	9.03	0.13	9.16	11.00	Pass
60	5300	9.94	0.13	10.07	11.00	Pass
64	5320	6.49	0.13	6.62	11.00	Pass
100	5500	5.46	0.13	5.59	11.00	Pass
116	5580	9.56	0.13	9.69	11.00	Pass
140	5700	2.41	0.13	2.54	11.00	Pass

Notes:

1. For U-NII-1, the antenna gain is 3.48 dBi < 6dBi, so the power density limit shall not be reduced.
2. For U-NII-2A, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.
3. For U-NII-2C, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
149	5745	0	0.14	2.36	30	Pass
157	5785	0.21	0.14	2.57	30	Pass
165	5825	1.47	0.14	3.83	30	Pass

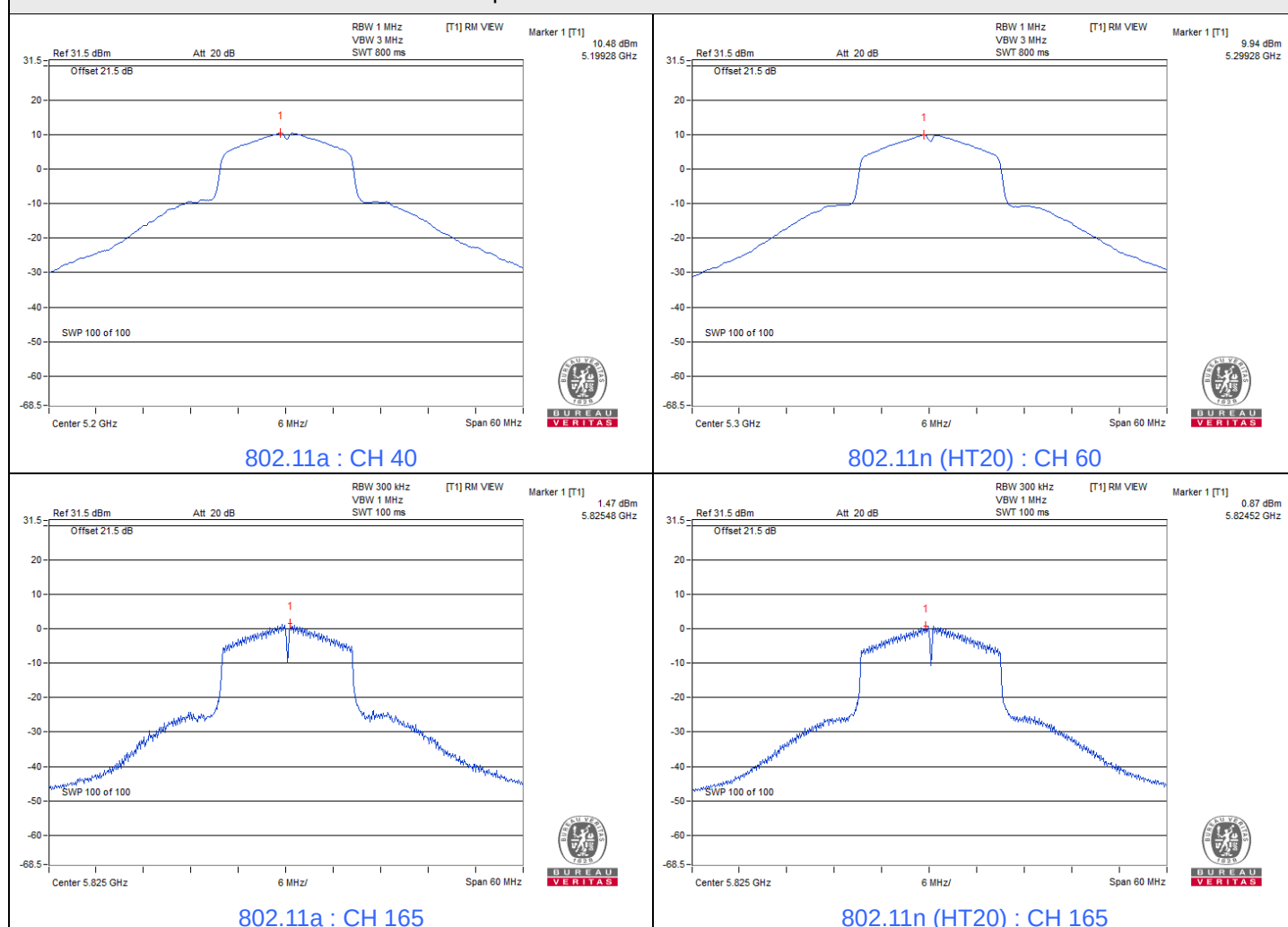
Note: For U-NII-3, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.

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	-0.32	0.13	2.03	30	Pass
157	5785	-0.08	0.13	2.27	30	Pass
165	5825	0.87	0.13	3.22	30	Pass

Note: For U-NII-3, the antenna gain is 3.48 dBi < 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value



7.4 6 dB Bandwidth

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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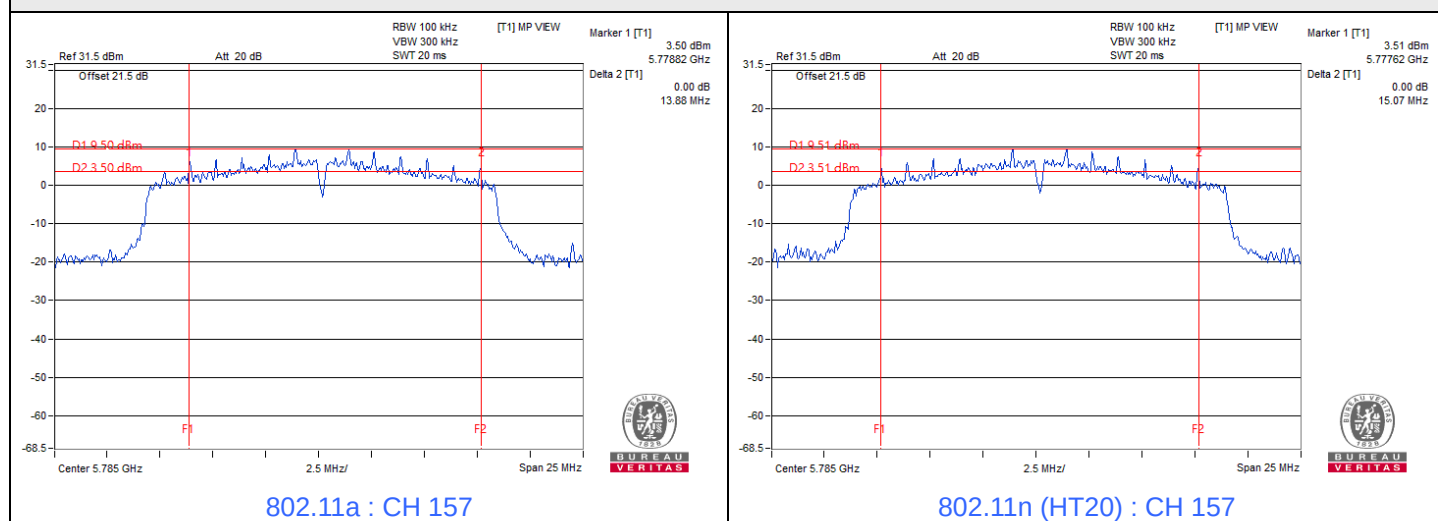
802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	15.12	0.5	Pass
157	5785	13.88	0.5	Pass
165	5825	15.11	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	15.13	0.5	Pass
157	5785	15.07	0.5	Pass
165	5825	15.09	0.5	Pass

Spectrum Plot of Minimum Value



7.5 Occupied Bandwidth

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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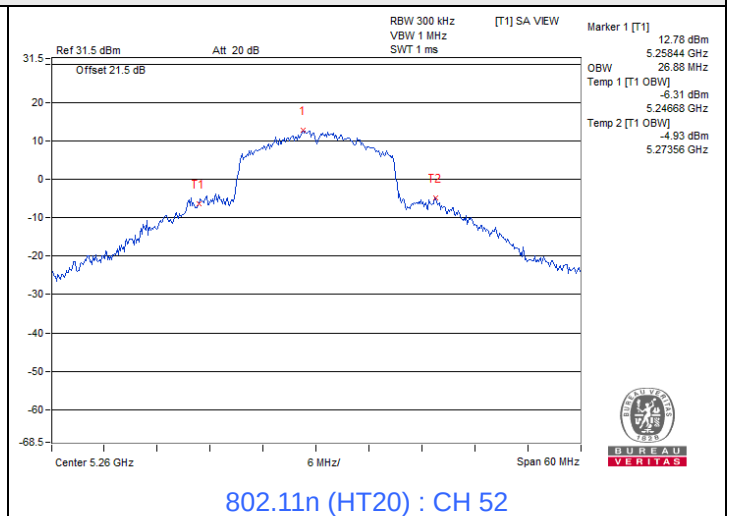
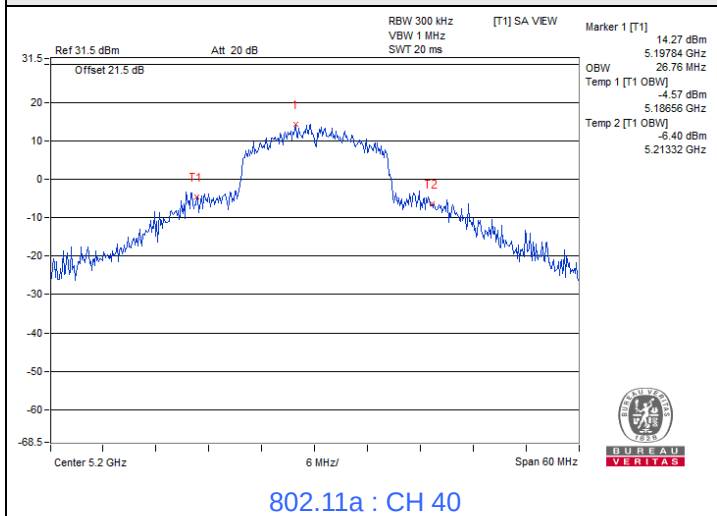
802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.72
40	5200	26.76
48	5240	19.56
52	5260	26.76
60	5300	25.32
64	5320	16.56
100	5500	16.56
116	5580	22.2
140	5700	16.44
149	5745	16.56
157	5785	16.8
165	5825	16.92

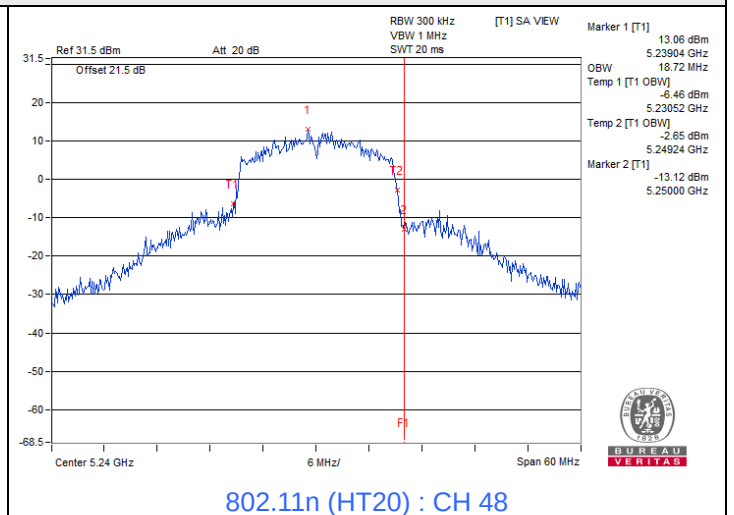
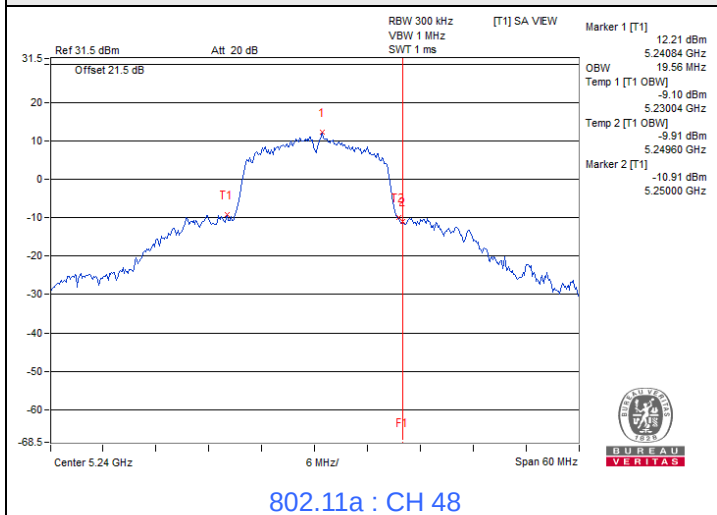
802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18
40	5200	26.04
48	5240	18.72
52	5260	26.88
60	5300	26.04
64	5320	17.88
100	5500	17.76
116	5580	26.4
140	5700	17.52
149	5745	17.88
157	5785	17.76
165	5825	18

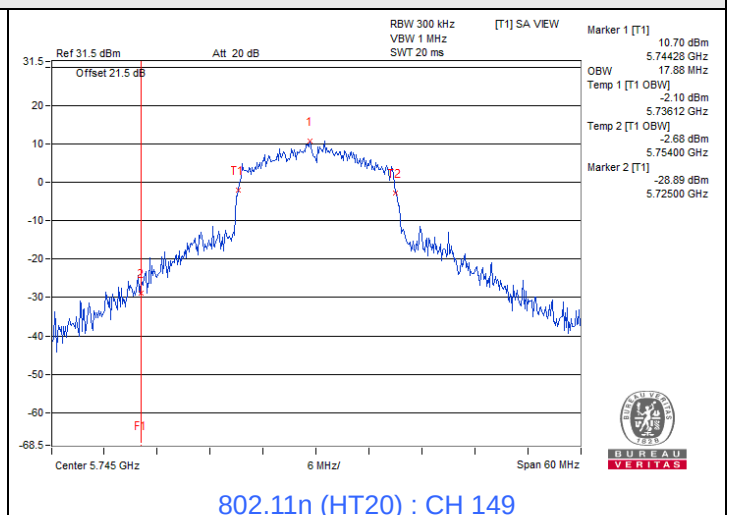
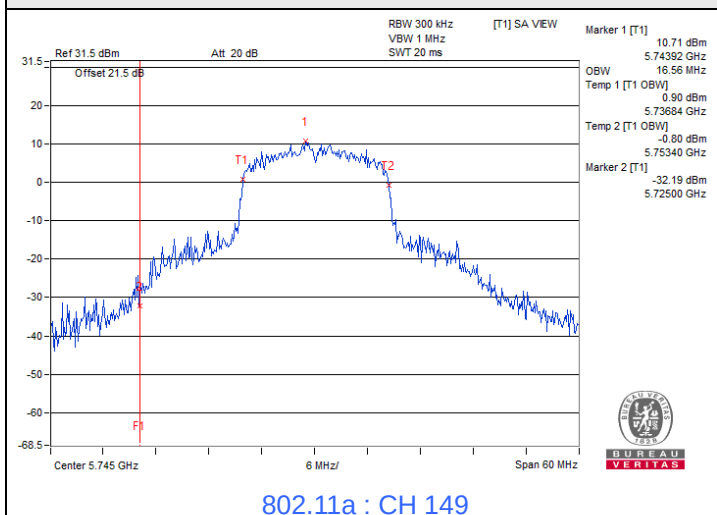
Spectrum Plot of Maximum Value



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



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



7.6 Frequency Stability

Input Power:	3.7 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	John Peng
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802.11a

Frequency Stability Versus Temp.									
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
50	3.7	5179.9894	Pass	5179.9859	Pass	5179.9877	Pass	5179.986	Pass
40	3.7	5180.0182	Pass	5180.0223	Pass	5180.0218	Pass	5180.0184	Pass
30	3.7	5179.9831	Pass	5179.9846	Pass	5179.986	Pass	5179.9859	Pass
20	3.7	5180.0226	Pass	5180.0205	Pass	5180.0238	Pass	5180.0198	Pass
10	3.7	5180.01	Pass	5180.013	Pass	5180.0141	Pass	5180.0098	Pass
0	3.7	5179.981	Pass	5179.9818	Pass	5179.9779	Pass	5179.978	Pass
-10	3.7	5179.9761	Pass	5179.9743	Pass	5179.9731	Pass	5179.9764	Pass
-20	3.7	5180.0037	Pass	5179.9999	Pass	5179.9997	Pass	5180.0014	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	4.255	5180.0241	Pass	5180.021	Pass	5180.0212	Pass	5180.0202	Pass
	3.7	5180.0226	Pass	5180.0205	Pass	5180.0238	Pass	5180.0198	Pass
	3.145	5180.0117	Pass	5180.0109	Pass	5180.0124	Pass	5180.0149	Pass

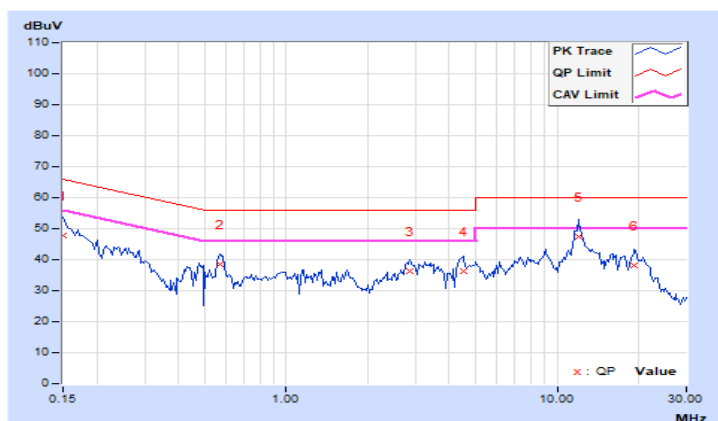
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% 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	0.15000	9.95	37.93	24.22	47.88	34.17	66.00	56.00	-18.12	-21.83
2	0.56797	9.97	28.56	21.41	38.53	31.38	56.00	46.00	-17.47	-14.62
3	2.86719	10.13	25.99	18.28	36.12	28.41	56.00	46.00	-19.88	-17.59
4	4.51172	10.23	25.90	18.35	36.13	28.58	56.00	46.00	-19.87	-17.42
5	11.94922	10.73	36.58	30.02	47.31	40.75	60.00	50.00	-12.69	-9.25
6	19.29688	11.16	26.95	22.40	38.11	33.56	60.00	50.00	-21.89	-16.44

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

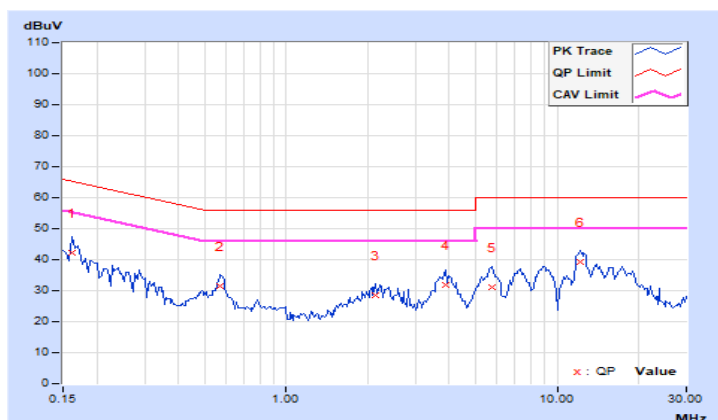


RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Sampson Chen		

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	0.16172	9.95	32.45	17.91	42.40	27.86	65.38	55.38	-22.98	-27.52
2	0.57188	9.97	21.65	15.81	31.62	25.78	56.00	46.00	-24.38	-20.22
3	2.14453	10.07	18.60	12.59	28.67	22.66	56.00	46.00	-27.33	-23.34
4	3.85547	10.17	21.70	15.34	31.87	25.51	56.00	46.00	-24.13	-20.49
5	5.78516	10.28	20.72	17.23	31.00	27.51	60.00	50.00	-29.00	-22.49
6	12.21484	10.63	28.79	22.62	39.42	33.25	60.00	50.00	-20.58	-16.75

Remarks:

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



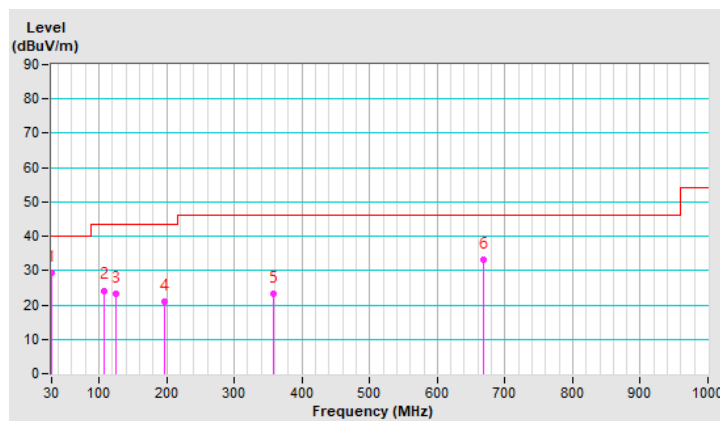
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	30.79	29.3 QP	40.0	-10.7	1.00 H	25	38.7	-9.4
2	108.01	24.2 QP	43.5	-19.3	1.00 H	58	35.4	-11.2
3	124.54	23.2 QP	43.5	-20.3	1.50 H	63	32.9	-9.7
4	196.02	20.9 QP	43.5	-22.6	1.00 H	57	32.1	-11.2
5	357.99	23.1 QP	46.0	-22.9	1.00 H	96	29.4	-6.3
6	667.49	33.0 QP	46.0	-13.0	2.50 H	144	32.8	0.2

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 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.

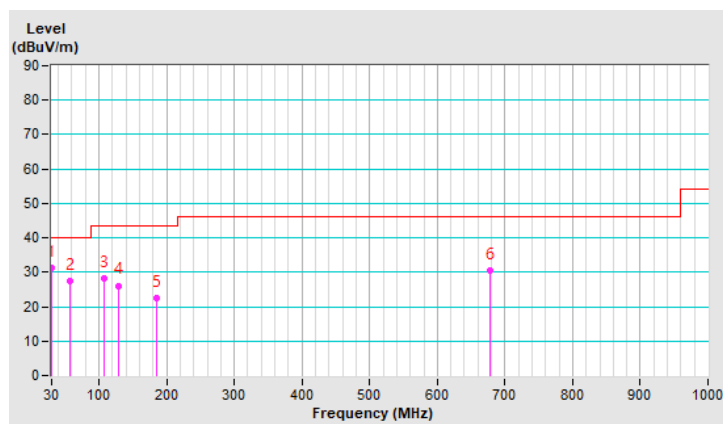


RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	30.59	31.1 QP	40.0	-8.9	1.00 V	232	40.4	-9.3
2	57.02	27.4 QP	40.0	-12.6	1.50 V	64	36.1	-8.7
3	108.02	28.3 QP	43.5	-15.2	1.50 V	41	39.5	-11.2
4	129.23	26.1 QP	43.5	-17.4	1.50 V	43	35.4	-9.3
5	186.04	22.4 QP	43.5	-21.1	1.50 V	41	32.8	-10.4
6	677.53	30.4 QP	46.0	-15.6	1.50 V	91	30.0	0.4

Remarks:

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



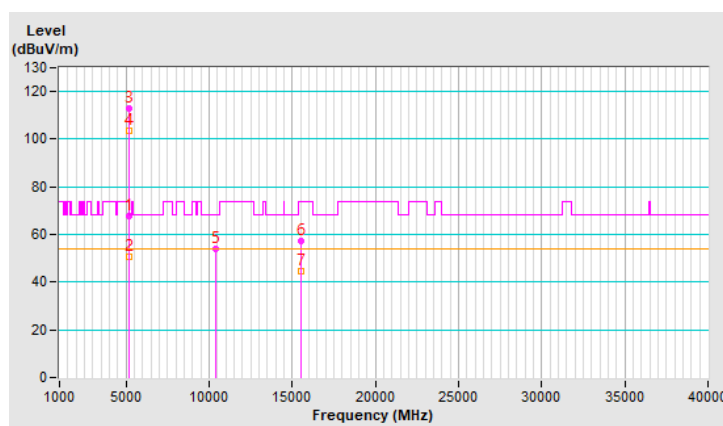
7.9 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	67.9 PK	74.0	-6.1	1.06 H	117	63.1	4.8
2	5150.00	50.9 AV	54.0	-3.1	1.06 H	117	46.1	4.8
3	*5180.00	112.8 PK			1.06 H	117	108.1	4.7
4	*5180.00	103.6 AV			1.06 H	117	98.9	4.7
5	#10360.00	54.2 PK	68.2	-14.0	1.17 H	321	40.0	14.2
6	15540.00	57.3 PK	74.0	-16.7	2.47 H	120	42.9	14.4
7	15540.00	44.8 AV	54.0	-9.2	2.47 H	120	30.4	14.4

Remarks:

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

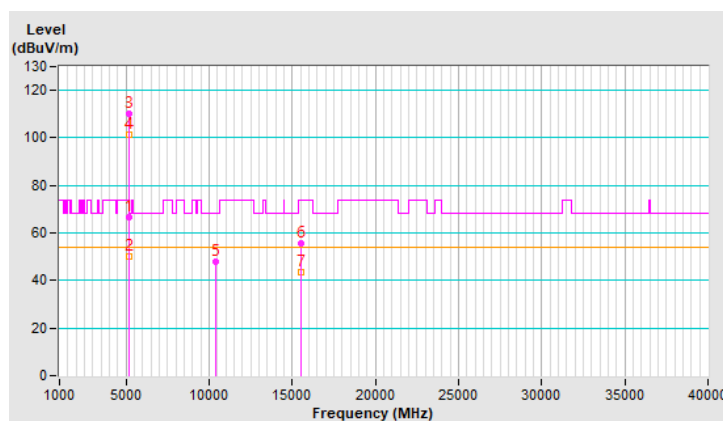


RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.8 PK	74.0	-7.2	1.05 V	102	62.0	4.8
2	5150.00	49.9 AV	54.0	-4.1	1.05 V	102	45.1	4.8
3	*5180.00	110.4 PK			1.05 V	102	105.7	4.7
4	*5180.00	101.2 AV			1.05 V	102	96.5	4.7
5	#10360.00	48.1 PK	68.2	-20.1	2.57 V	325	33.9	14.2
6	15540.00	55.7 PK	74.0	-18.3	3.93 V	191	41.3	14.4
7	15540.00	43.3 AV	54.0	-10.7	3.93 V	191	28.9	14.4

Remarks:

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

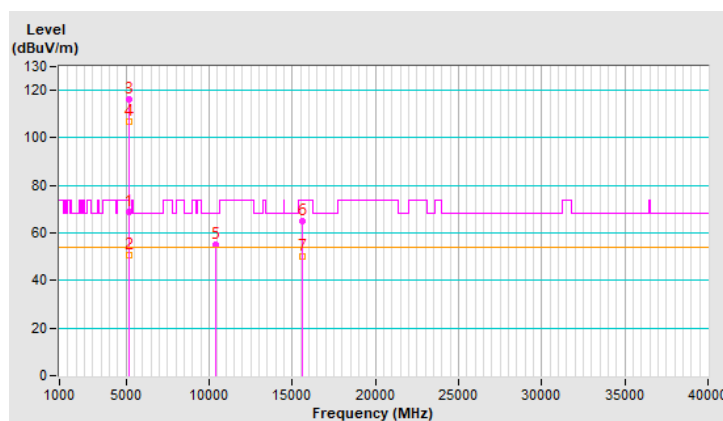


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	68.8 PK	74.0	-5.2	1.25 H	118	64.0	4.8
2	5150.00	50.8 AV	54.0	-3.2	1.25 H	118	46.0	4.8
3	*5200.00	116.0 PK			1.25 H	118	111.4	4.6
4	*5200.00	107.0 AV			1.25 H	118	102.4	4.6
5	#10400.00	55.0 PK	68.2	-13.2	1.18 H	317	40.8	14.2
6	15600.00	64.8 PK	74.0	-9.2	2.80 H	150	50.0	14.8
7	15600.00	50.2 AV	54.0	-3.8	2.80 H	150	35.4	14.8

Remarks:

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

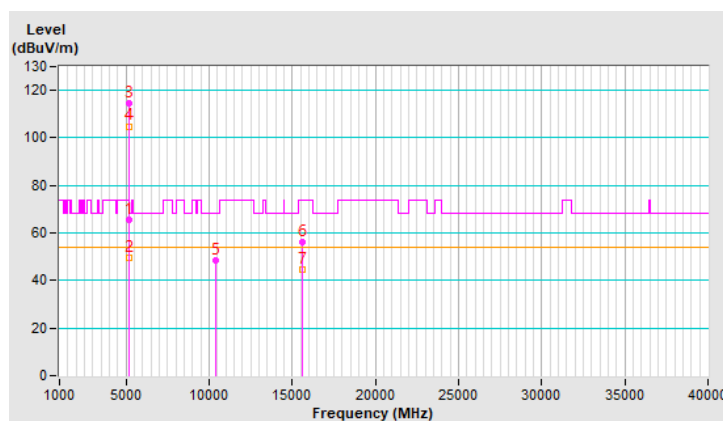


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.4 PK	74.0	-8.6	1.02 V	99	60.6	4.8
2	5150.00	49.6 AV	54.0	-4.4	1.02 V	99	44.8	4.8
3	*5200.00	114.6 PK			1.02 V	99	110.0	4.6
4	*5200.00	104.9 AV			1.02 V	99	100.3	4.6
5	#10400.00	48.3 PK	68.2	-19.9	2.57 V	352	34.1	14.2
6	15600.00	56.1 PK	74.0	-17.9	3.89 V	198	41.3	14.8
7	15600.00	44.6 AV	54.0	-9.4	3.89 V	198	29.8	14.8

Remarks:

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

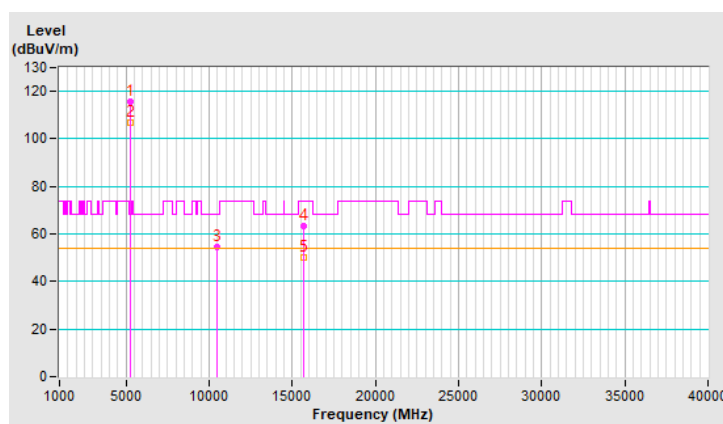


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	115.7 PK			1.14 H	120	111.3	4.4
2	*5240.00	106.8 AV			1.14 H	120	102.4	4.4
3	#10480.00	54.5 PK	68.2	-13.7	1.21 H	321	40.1	14.4
4	15720.00	63.2 PK	74.0	-10.8	2.82 H	123	49.7	13.5
5	15720.00	49.9 AV	54.0	-4.1	2.82 H	123	36.4	13.5

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.

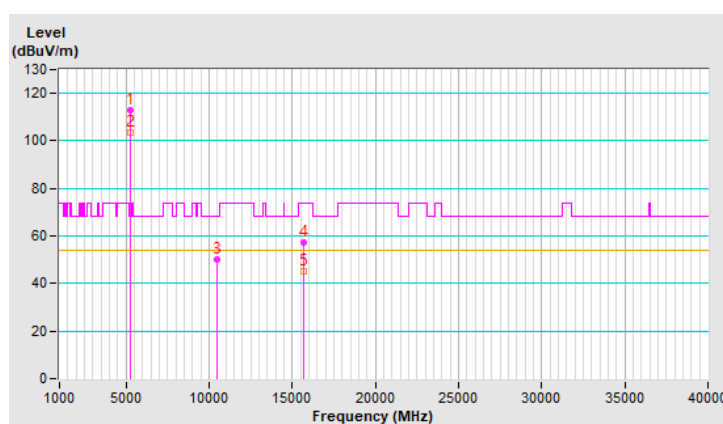


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	112.9 PK			1.09 V	114	108.5	4.4
2	*5240.00	103.7 AV			1.09 V	114	99.3	4.4
3	#10480.00	50.0 PK	68.2	-18.2	2.63 V	341	35.6	14.4
4	15720.00	57.3 PK	74.0	-16.7	3.90 V	180	43.8	13.5
5	15720.00	45.4 AV	54.0	-8.6	3.90 V	180	31.9	13.5

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.

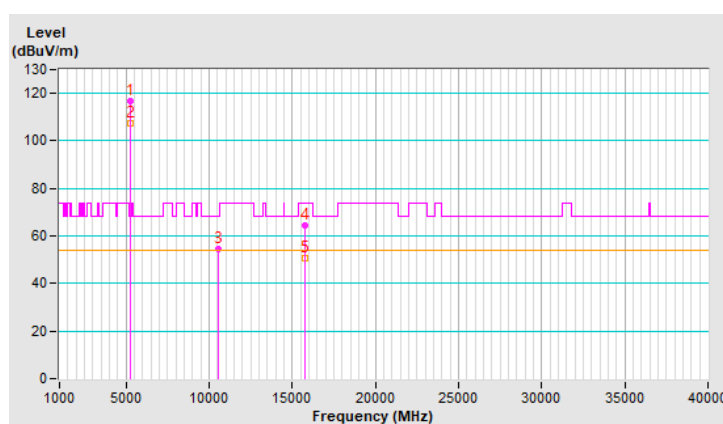


RF Mode	TX 802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	116.7 PK			1.20 H	118	112.3	4.4
2	*5260.00	107.6 AV			1.20 H	118	103.2	4.4
3	#10520.00	54.4 PK	68.2	-13.8	1.17 H	313	40.0	14.4
4	15780.00	64.6 PK	74.0	-9.4	2.74 H	135	51.0	13.6
5	15780.00	50.7 AV	54.0	-3.3	2.74 H	135	37.1	13.6

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.

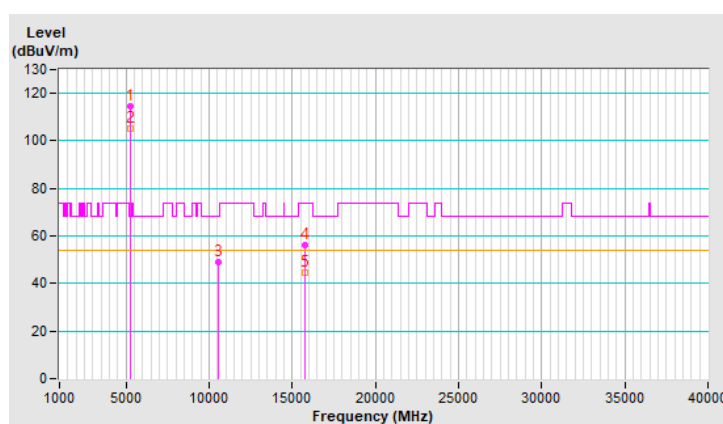


RF Mode	TX 802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	114.5 PK			1.02 V	87	110.1	4.4
2	*5260.00	105.0 AV			1.02 V	87	100.6	4.4
3	#10520.00	49.1 PK	68.2	-19.1	2.58 V	326	34.7	14.4
4	15780.00	56.4 PK	74.0	-17.6	3.84 V	191	42.8	13.6
5	15780.00	44.4 AV	54.0	-9.6	3.84 V	191	30.8	13.6

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.

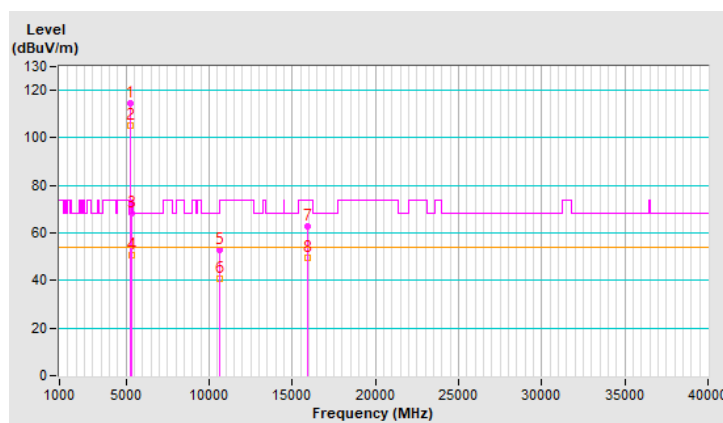


RF Mode	TX 802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	114.4 PK			1.19 H	116	110.1	4.3
2	*5300.00	105.0 AV			1.19 H	116	100.7	4.3
3	5350.00	68.3 PK	74.0	-5.7	1.19 H	116	63.7	4.6
4	5350.00	50.8 AV	54.0	-3.2	1.19 H	116	46.2	4.6
5	10600.00	52.9 PK	74.0	-21.1	1.22 H	321	38.7	14.2
6	10600.00	40.6 AV	54.0	-13.4	1.22 H	321	26.4	14.2
7	15900.00	62.9 PK	74.0	-11.1	2.33 H	108	49.1	13.8
8	15900.00	49.8 AV	54.0	-4.2	2.33 H	108	36.0	13.8

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.

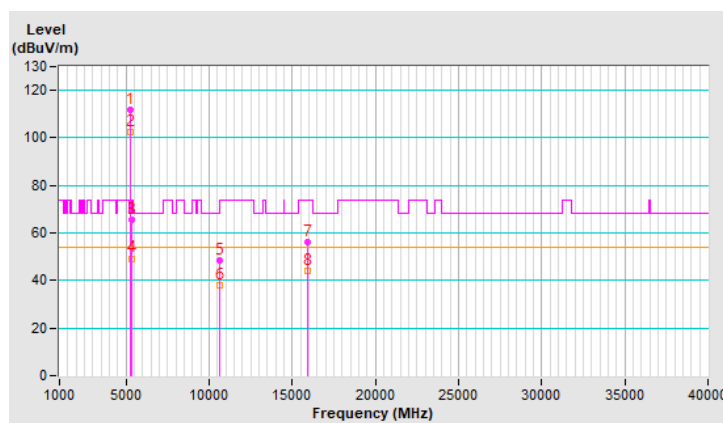


RF Mode	TX 802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	111.9 PK			1.03 V	109	107.6	4.3
2	*5300.00	102.5 AV			1.03 V	109	98.2	4.3
3	5350.00	65.4 PK	74.0	-8.6	1.03 V	109	60.8	4.6
4	5350.00	49.3 AV	54.0	-4.7	1.03 V	109	44.7	4.6
5	10600.00	48.3 PK	74.0	-25.7	2.62 V	346	34.1	14.2
6	10600.00	38.0 AV	54.0	-16.0	2.62 V	346	23.8	14.2
7	15900.00	56.4 PK	74.0	-17.6	3.92 V	173	42.6	13.8
8	15900.00	44.1 AV	54.0	-9.9	3.92 V	173	30.3	13.8

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.

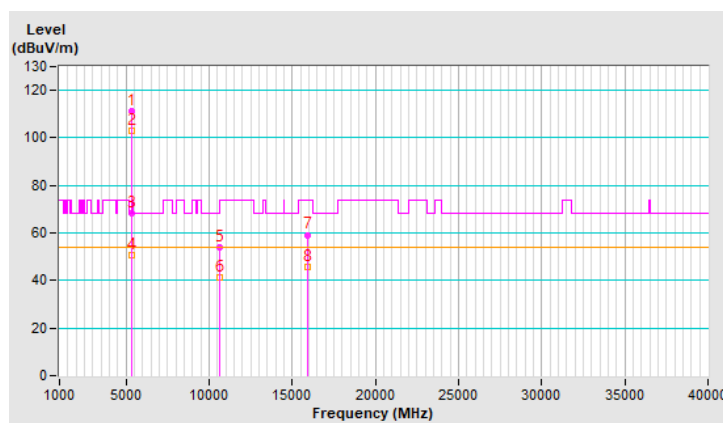


RF Mode	TX 802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	111.4 PK			1.15 H	114	106.9	4.5
2	*5320.00	103.0 AV			1.15 H	114	98.5	4.5
3	5350.00	68.3 PK	74.0	-5.7	1.15 H	114	63.7	4.6
4	5350.00	50.7 AV	54.0	-3.3	1.15 H	114	46.1	4.6
5	10640.00	54.0 PK	74.0	-20.0	1.20 H	326	39.7	14.3
6	10640.00	41.3 AV	54.0	-12.7	1.20 H	326	27.0	14.3
7	15960.00	59.2 PK	74.0	-14.8	2.43 H	125	45.3	13.9
8	15960.00	45.8 AV	54.0	-8.2	2.43 H	125	31.9	13.9

Remarks:

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

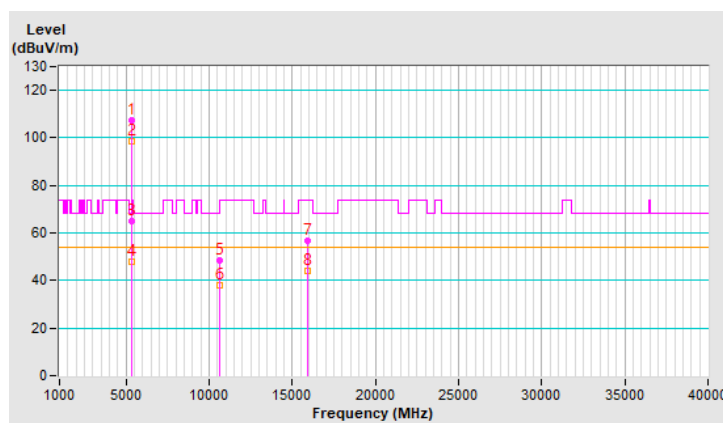


RF Mode	TX 802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	107.3 PK			1.15 V	96	102.8	4.5
2	*5320.00	98.4 AV			1.15 V	96	93.9	4.5
3	5350.00	65.1 PK	74.0	-8.9	1.15 V	96	60.5	4.6
4	5350.00	47.7 AV	54.0	-6.3	1.15 V	96	43.1	4.6
5	10640.00	48.2 PK	74.0	-25.8	2.55 V	334	33.9	14.3
6	10640.00	38.1 AV	54.0	-15.9	2.55 V	334	23.8	14.3
7	15960.00	56.5 PK	74.0	-17.5	3.89 V	196	42.6	13.9
8	15960.00	44.2 AV	54.0	-9.8	3.89 V	196	30.3	13.9

Remarks:

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

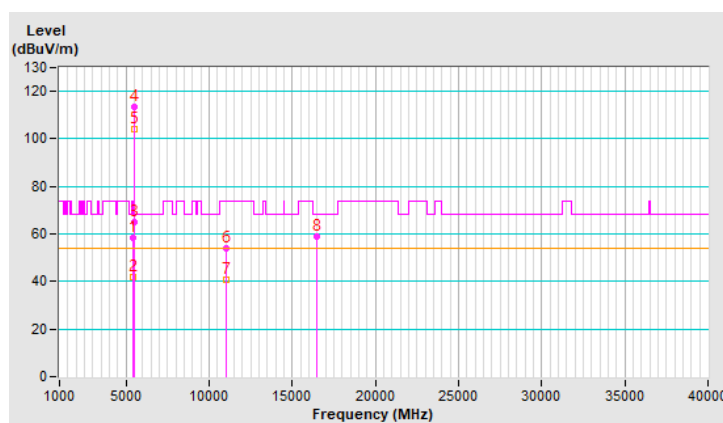


RF Mode	TX 802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.6 PK	74.0	-15.4	1.24 H	99	53.8	4.8
2	5460.00	41.9 AV	54.0	-12.1	1.24 H	99	37.1	4.8
3	#5465.34	64.9 PK	68.2	-3.3	1.24 H	99	60.1	4.8
4	*5500.00	113.4 PK			1.24 H	99	108.6	4.8
5	*5500.00	104.1 AV			1.24 H	99	99.3	4.8
6	11000.00	54.2 PK	74.0	-19.8	1.22 H	307	39.4	14.8
7	11000.00	40.8 AV	54.0	-13.2	1.22 H	307	26.0	14.8
8	#16500.00	59.1 PK	68.2	-9.1	2.53 H	126	43.8	15.3

Remarks:

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

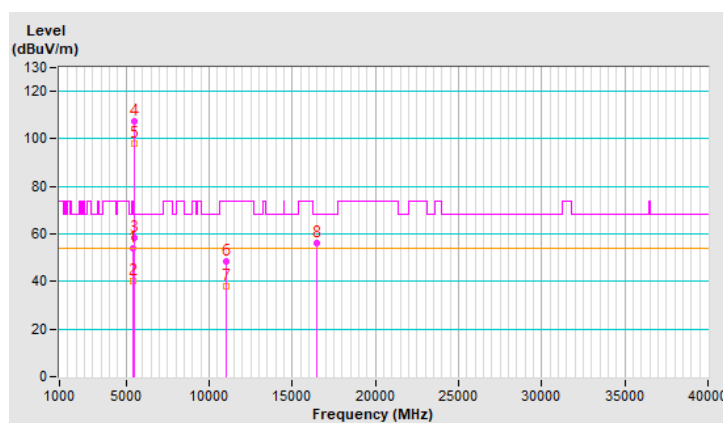


RF Mode	TX 802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	54.0 PK	74.0	-20.0	1.23 V	67	49.2	4.8
2	5460.00	40.2 AV	54.0	-13.8	1.23 V	67	35.4	4.8
3	#5464.69	58.3 PK	68.2	-9.9	1.23 V	67	53.5	4.8
4	*5500.00	107.4 PK			1.23 V	67	102.6	4.8
5	*5500.00	98.2 AV			1.23 V	67	93.4	4.8
6	11000.00	48.2 PK	74.0	-25.8	2.56 V	330	33.4	14.8
7	11000.00	38.0 AV	54.0	-16.0	2.56 V	330	23.2	14.8
8	#16500.00	56.4 PK	68.2	-11.8	3.95 V	173	41.1	15.3

Remarks:

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

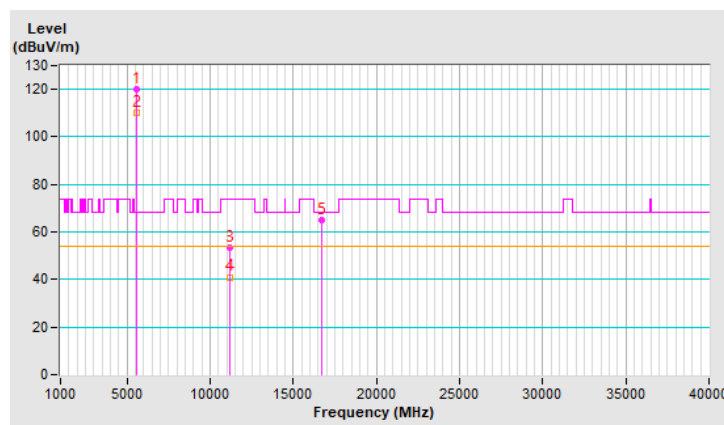


RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.1 PK			1.15 H	117	115.3	4.8
2	*5580.00	110.1 AV			1.15 H	117	105.3	4.8
3	11160.00	53.5 PK	74.0	-20.5	1.35 H	219	38.9	14.6
4	11160.00	41.0 AV	54.0	-13.0	1.35 H	219	26.4	14.6
5	#16740.00	64.9 PK	68.2	-3.3	2.54 H	89	48.1	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.

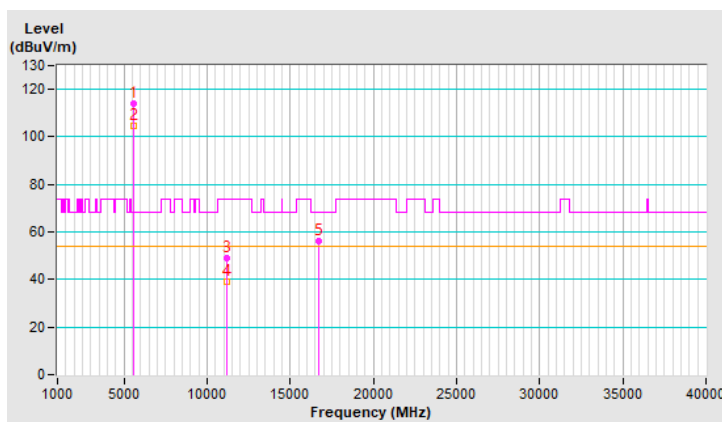


RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	113.9 PK			1.02 V	89	109.1	4.8
2	*5580.00	104.4 AV			1.02 V	89	99.6	4.8
3	11160.00	48.9 PK	74.0	-25.1	2.60 V	338	34.3	14.6
4	11160.00	38.9 AV	54.0	-15.1	2.60 V	338	24.3	14.6
5	#16740.00	56.4 PK	68.2	-11.8	3.89 V	184	39.6	16.8

Remarks:

1. $\text{Emission Level(dBuV/m)} = \text{Raw Value(dBuV)} + \text{Correction Factor(dB/m)}$
2. $\text{Correction Factor(dB/m)} = \text{Antenna Factor(dB/m)} + \text{Cable Factor(dB)} - \text{Pre-Amplifier Factor(dB)}$
3. $\text{Margin value} = \text{Emission Level} - \text{Limit value}$
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.

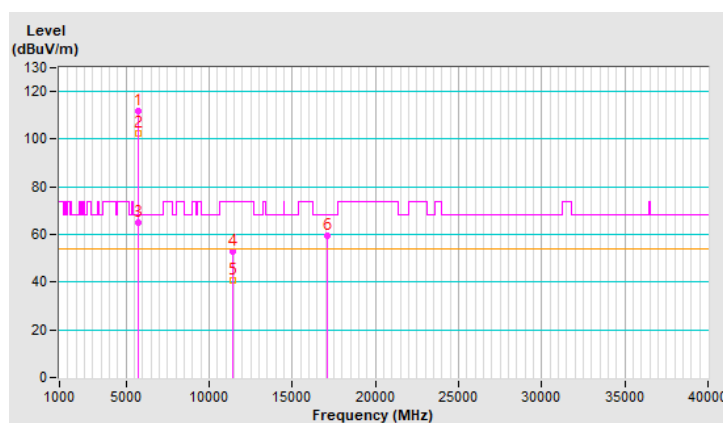


RF Mode	TX 802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.7 PK			1.07 H	240	107.0	4.7
2	*5700.00	102.5 AV			1.07 H	240	97.8	4.7
3	#5725.00	65.0 PK	68.2	-3.2	1.07 H	240	60.1	4.9
4	11400.00	52.8 PK	74.0	-21.2	1.30 H	218	37.4	15.4
5	11400.00	40.6 AV	54.0	-13.4	1.30 H	218	25.2	15.4
6	#17100.00	59.3 PK	68.2	-8.9	2.66 H	215	40.8	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.

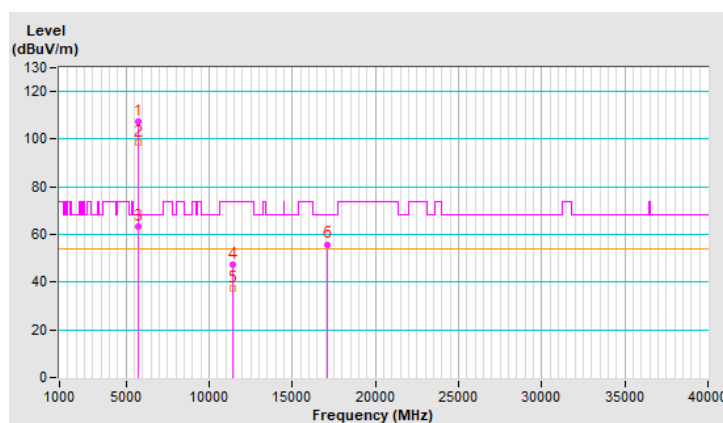


RF Mode	TX 802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	107.4 PK			1.28 V	75	102.7	4.7
2	*5700.00	98.4 AV			1.28 V	75	93.7	4.7
3	#5725.00	63.1 PK	68.2	-5.1	1.28 V	75	58.2	4.9
4	11400.00	47.3 PK	74.0	-26.7	2.63 V	321	31.9	15.4
5	11400.00	37.6 AV	54.0	-16.4	2.63 V	321	22.2	15.4
6	#17100.00	55.9 PK	68.2	-12.3	3.97 V	191	37.4	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.

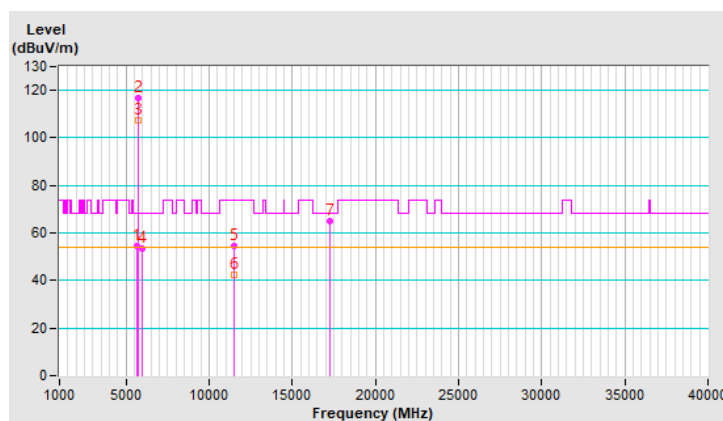


RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.41	54.3 PK	68.2	-13.9	1.08 H	242	49.4	4.9
2	*5745.00	116.7 PK			1.08 H	242	111.6	5.1
3	*5745.00	107.4 AV			1.08 H	242	102.3	5.1
4	#5941.43	53.4 PK	68.2	-14.8	1.08 H	242	47.9	5.5
5	11490.00	54.3 PK	74.0	-19.7	1.29 H	217	39.2	15.1
6	11490.00	42.6 AV	54.0	-11.4	1.29 H	217	27.5	15.1
7	#17235.00	65.0 PK	68.2	-3.2	2.60 H	215	46.7	18.3

Remarks:

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

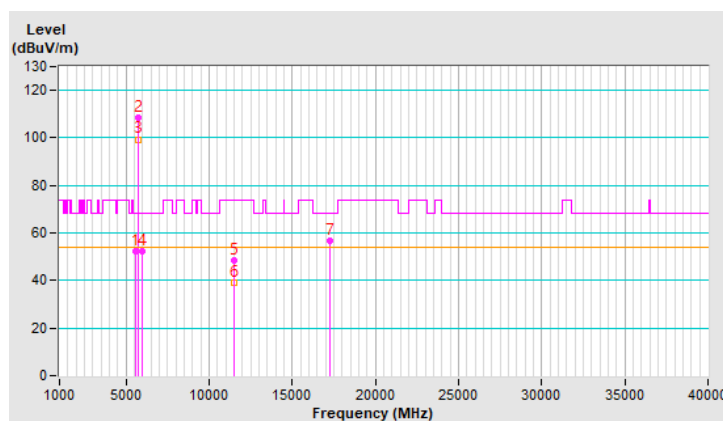


RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5616.62	52.5 PK	68.2	-15.7	1.52 V	330	47.6	4.9
2	*5745.00	108.4 PK			1.52 V	330	103.3	5.1
3	*5745.00	99.4 AV			1.52 V	330	94.3	5.1
4	#5979.24	52.3 PK	68.2	-15.9	1.52 V	330	46.8	5.5
5	11490.00	48.2 PK	74.0	-25.8	2.58 V	330	33.1	15.1
6	11490.00	39.1 AV	54.0	-14.9	2.58 V	330	24.0	15.1
7	#17235.00	56.7 PK	68.2	-11.5	3.92 V	188	38.4	18.3

Remarks:

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

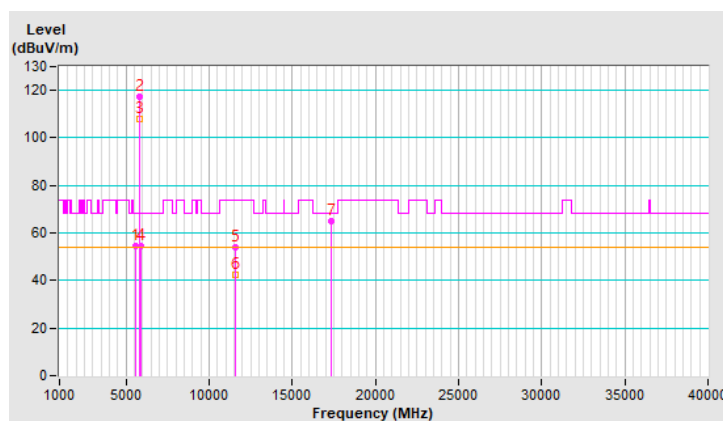


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5584.49	54.4 PK	68.2	-13.8	1.09 H	241	49.6	4.8
2	*5785.00	117.1 PK			1.09 H	241	111.9	5.2
3	*5785.00	107.8 AV			1.09 H	241	102.6	5.2
4	#5927.91	54.7 PK	68.2	-13.5	1.09 H	241	49.2	5.5
5	11570.00	54.2 PK	74.0	-19.8	1.29 H	219	39.1	15.1
6	11570.00	42.5 AV	54.0	-11.5	1.29 H	219	27.4	15.1
7	#17355.00	65.0 PK	68.2	-3.2	2.57 H	213	46.1	18.9

Remarks:

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

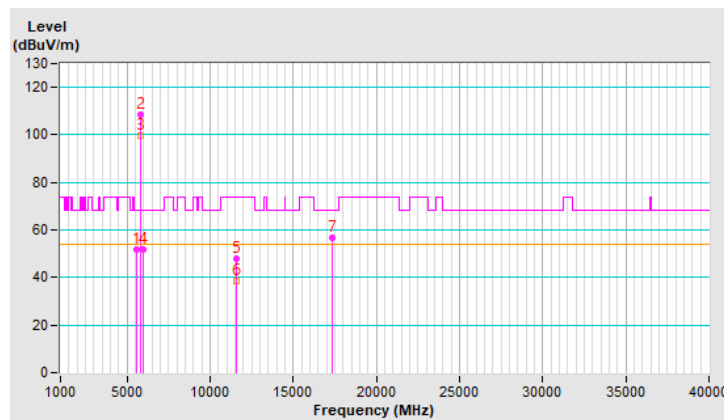


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5600.69	51.9 PK	68.2	-16.3	1.47 V	329	46.9	5.0
2	*5785.00	108.6 PK			1.47 V	329	103.4	5.2
3	*5785.00	99.7 AV			1.47 V	329	94.5	5.2
4	#5970.37	51.9 PK	68.2	-16.3	1.47 V	329	46.4	5.5
5	11570.00	47.9 PK	74.0	-26.1	2.62 V	327	32.8	15.1
6	11570.00	38.6 AV	54.0	-15.4	2.62 V	327	23.5	15.1
7	#17355.00	56.8 PK	68.2	-11.4	3.90 V	186	37.9	18.9

Remarks:

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

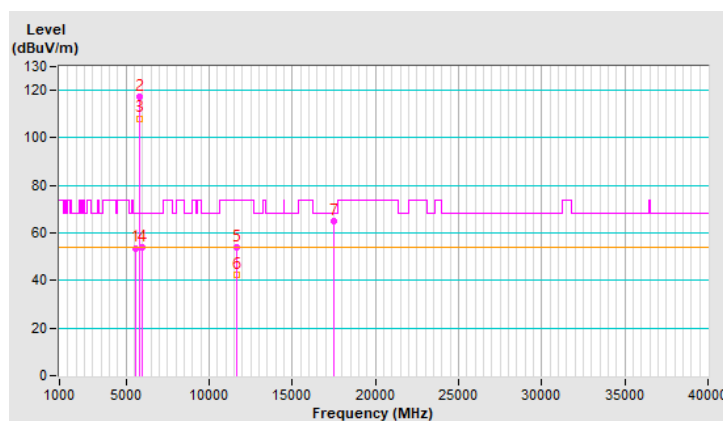


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5580.59	53.7 PK	68.2	-14.5	1.09 H	242	48.9	4.8
2	*5825.00	117.5 PK			1.09 H	242	112.2	5.3
3	*5825.00	108.2 AV			1.09 H	242	102.9	5.3
4	#5935.67	54.1 PK	68.2	-14.1	1.09 H	242	48.6	5.5
5	11650.00	54.2 PK	74.0	-19.8	1.32 H	214	39.2	15.0
6	11650.00	42.2 AV	54.0	-11.8	1.32 H	214	27.2	15.0
7	#17475.00	64.9 PK	68.2	-3.3	2.59 H	44	45.9	19.0

Remarks:

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

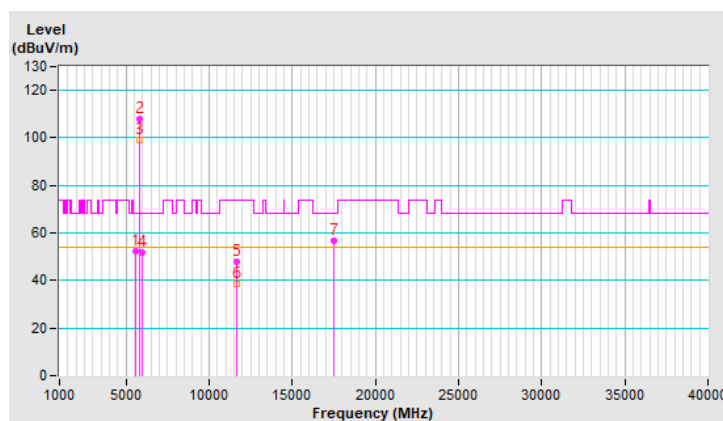


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5598.56	52.2 PK	68.2	-16.0	1.50 V	333	47.3	4.9
2	*5825.00	108.1 PK			1.50 V	333	102.8	5.3
3	*5825.00	99.3 AV			1.50 V	333	94.0	5.3
4	#5961.08	51.8 PK	68.2	-16.4	1.50 V	333	46.3	5.5
5	11650.00	48.0 PK	74.0	-26.0	2.58 V	315	33.0	15.0
6	11650.00	38.5 AV	54.0	-15.5	2.58 V	315	23.5	15.0
7	#17475.00	56.7 PK	68.2	-11.5	3.93 V	187	37.7	19.0

Remarks:

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

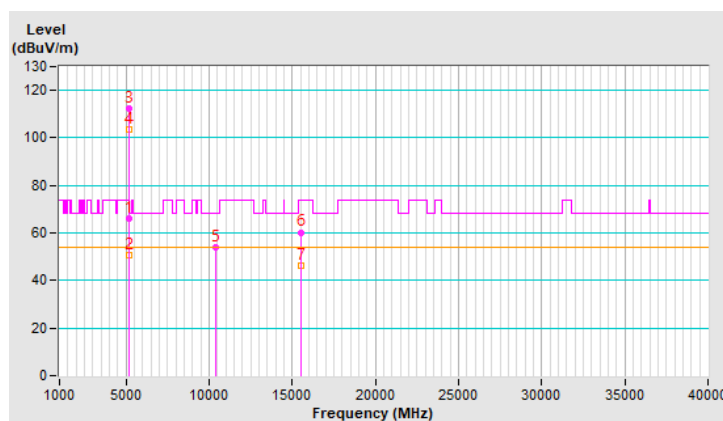


RF Mode	TX 802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.2 PK	74.0	-7.8	1.19 H	118	61.4	4.8
2	5150.00	50.7 AV	54.0	-3.3	1.19 H	118	45.9	4.8
3	*5180.00	112.5 PK			1.19 H	118	107.8	4.7
4	*5180.00	103.4 AV			1.19 H	118	98.7	4.7
5	#10360.00	53.9 PK	68.2	-14.3	1.26 H	232	39.7	14.2
6	15540.00	60.3 PK	74.0	-13.7	2.70 H	217	45.9	14.4
7	15540.00	46.4 AV	54.0	-7.6	2.70 H	217	32.0	14.4

Remarks:

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

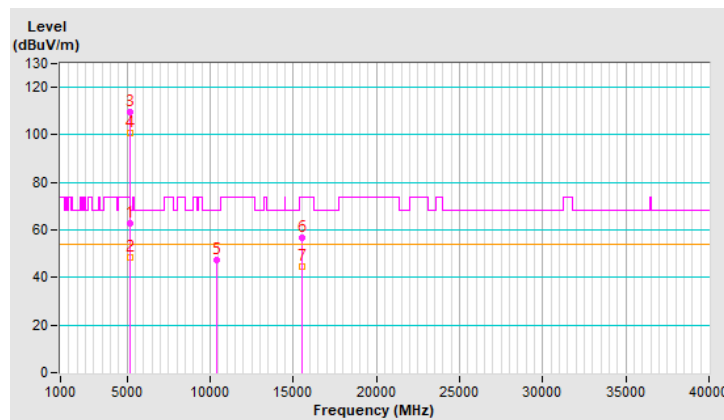


RF Mode	TX 802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.8 PK	74.0	-11.2	1.04 V	100	58.0	4.8
2	5150.00	48.2 AV	54.0	-5.8	1.04 V	100	43.4	4.8
3	*5180.00	109.6 PK			1.04 V	100	104.9	4.7
4	*5180.00	100.6 AV			1.04 V	100	95.9	4.7
5	#10360.00	47.4 PK	68.2	-20.8	2.66 V	311	33.2	14.2
6	15540.00	56.5 PK	74.0	-17.5	3.93 V	206	42.1	14.4
7	15540.00	44.8 AV	54.0	-9.2	3.93 V	206	30.4	14.4

Remarks:

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

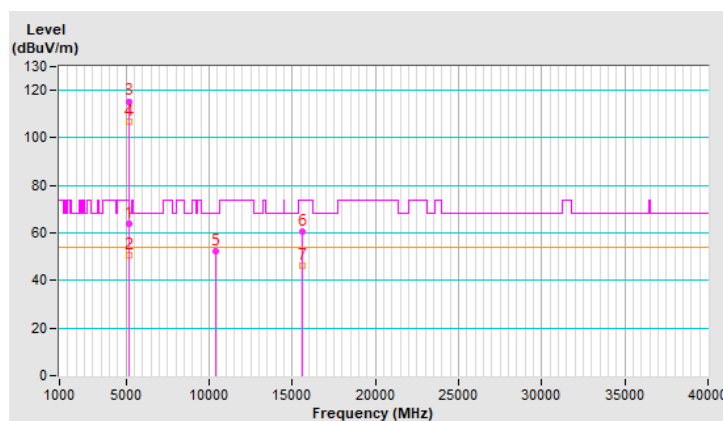


RF Mode	TX 802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	64.0 PK	74.0	-10.0	1.15 H	116	59.2	4.8
2	5150.00	50.8 AV	54.0	-3.2	1.15 H	116	46.0	4.8
3	*5200.00	115.4 PK			1.15 H	116	110.8	4.6
4	*5200.00	106.7 AV			1.15 H	116	102.1	4.6
5	#10400.00	52.5 PK	68.2	-15.7	1.24 H	225	38.3	14.2
6	15600.00	60.4 PK	74.0	-13.6	2.67 H	225	45.6	14.8
7	15600.00	46.2 AV	54.0	-7.8	2.67 H	225	31.4	14.8

Remarks:

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

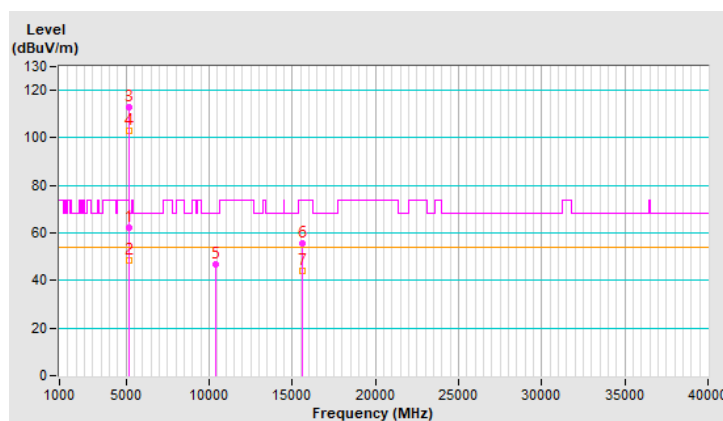


RF Mode	TX 802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.4 PK	74.0	-11.6	1.09 V	103	57.6	4.8
2	5150.00	48.2 AV	54.0	-5.8	1.09 V	103	43.4	4.8
3	*5200.00	112.7 PK			1.09 V	103	108.1	4.6
4	*5200.00	103.1 AV			1.09 V	103	98.5	4.6
5	#10400.00	46.7 PK	68.2	-21.5	2.58 V	321	32.5	14.2
6	15600.00	55.7 PK	74.0	-18.3	4.00 V	179	40.9	14.8
7	15600.00	44.2 AV	54.0	-9.8	4.00 V	179	29.4	14.8

Remarks:

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

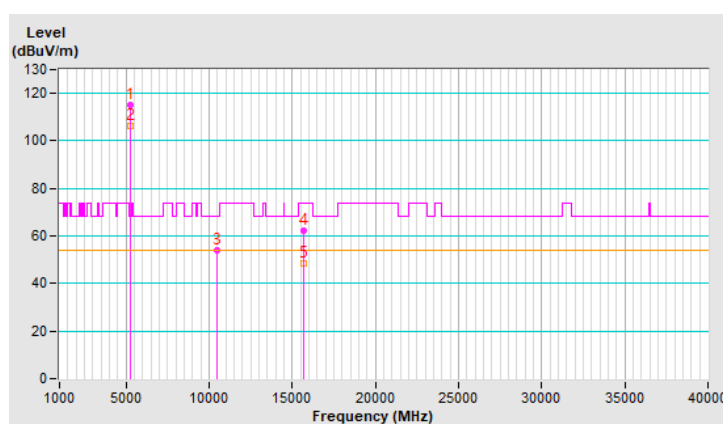


RF Mode	TX 802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	114.9 PK			1.14 H	115	110.5	4.4
2	*5240.00	106.4 AV			1.14 H	115	102.0	4.4
3	#10480.00	53.9 PK	68.2	-14.3	1.35 H	206	39.5	14.4
4	15720.00	62.0 PK	74.0	-12.0	2.72 H	219	48.5	13.5
5	15720.00	48.5 AV	54.0	-5.5	2.72 H	219	35.0	13.5

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.

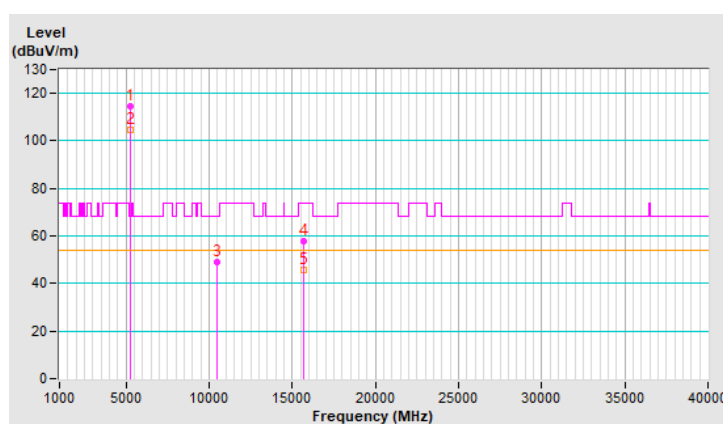


RF Mode	TX 802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	114.7 PK			1.10 V	92	110.3	4.4
2	*5240.00	104.8 AV			1.10 V	92	100.4	4.4
3	#10480.00	49.0 PK	68.2	-19.2	2.57 V	310	34.6	14.4
4	15720.00	57.7 PK	74.0	-16.3	4.00 V	204	44.2	13.5
5	15720.00	45.9 AV	54.0	-8.1	4.00 V	204	32.4	13.5

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.

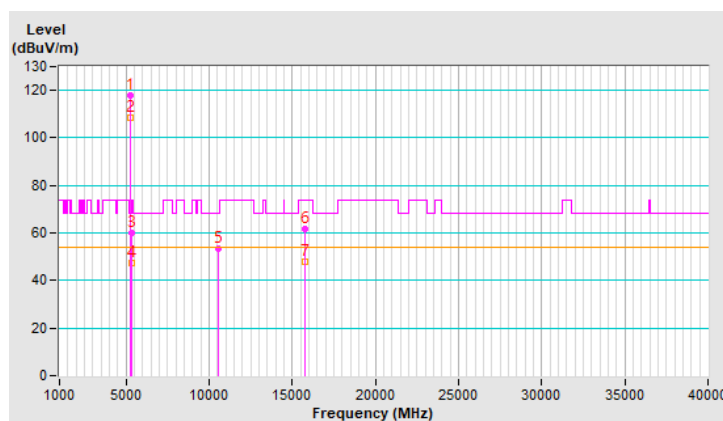


RF Mode	TX 802.11n (HT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	117.8 PK			1.10 H	129	113.4	4.4
2	*5260.00	108.3 AV			1.10 H	129	103.9	4.4
3	5350.00	60.2 PK	74.0	-13.8	1.10 H	129	55.6	4.6
4	5350.00	47.3 AV	54.0	-6.7	1.10 H	129	42.7	4.6
5	#10520.00	53.6 PK	68.2	-14.6	1.25 H	208	39.2	14.4
6	15780.00	61.5 PK	74.0	-12.5	2.61 H	210	47.9	13.6
7	15780.00	47.9 AV	54.0	-6.1	2.61 H	210	34.3	13.6

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.

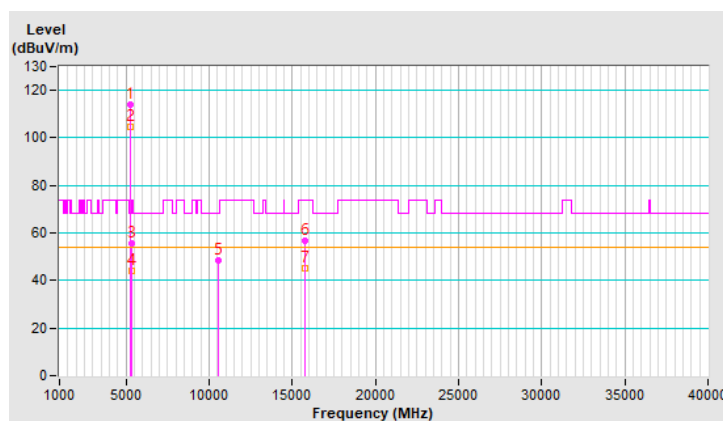


RF Mode	TX 802.11n (HT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5260.00	113.9 PK			1.12 V	111	109.5	4.4
2	*5260.00	104.4 AV			1.12 V	111	100.0	4.4
3	5350.00	55.6 PK	74.0	-18.4	1.12 V	111	51.0	4.6
4	5350.00	44.1 AV	54.0	-9.9	1.12 V	111	39.5	4.6
5	#10520.00	48.3 PK	68.2	-19.9	2.69 V	320	33.9	14.4
6	15780.00	56.9 PK	74.0	-17.1	3.97 V	203	43.3	13.6
7	15780.00	45.4 AV	54.0	-8.6	3.97 V	203	31.8	13.6

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.

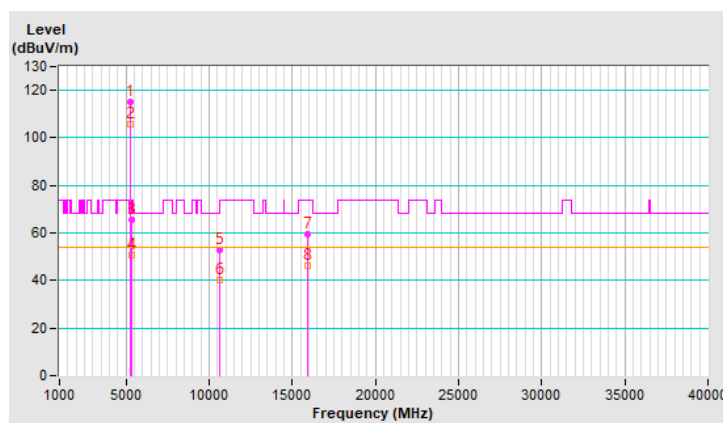


RF Mode	TX 802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	114.9 PK			1.21 H	121	110.6	4.3
2	*5300.00	105.6 AV			1.21 H	121	101.3	4.3
3	5350.00	65.5 PK	74.0	-8.5	1.21 H	121	60.9	4.6
4	5350.00	50.9 AV	54.0	-3.1	1.21 H	121	46.3	4.6
5	10600.00	52.7 PK	74.0	-21.3	1.30 H	203	38.5	14.2
6	10600.00	40.3 AV	54.0	-13.7	1.30 H	203	26.1	14.2
7	15900.00	59.7 PK	74.0	-14.3	2.66 H	212	45.9	13.8
8	15900.00	46.2 AV	54.0	-7.8	2.66 H	212	32.4	13.8

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.

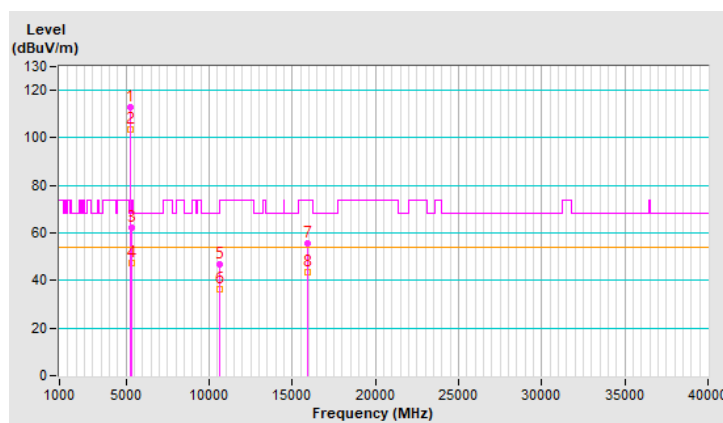


RF Mode	TX 802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	113.0 PK			1.09 V	125	108.7	4.3
2	*5300.00	103.5 AV			1.09 V	125	99.2	4.3
3	5350.00	62.2 PK	74.0	-11.8	1.09 V	125	57.6	4.6
4	5350.00	47.6 AV	54.0	-6.4	1.09 V	125	43.0	4.6
5	10600.00	46.8 PK	74.0	-27.2	2.62 V	335	32.6	14.2
6	10600.00	36.3 AV	54.0	-17.7	2.62 V	335	22.1	14.2
7	15900.00	55.4 PK	74.0	-18.6	3.93 V	191	41.6	13.8
8	15900.00	43.5 AV	54.0	-10.5	3.93 V	191	29.7	13.8

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.

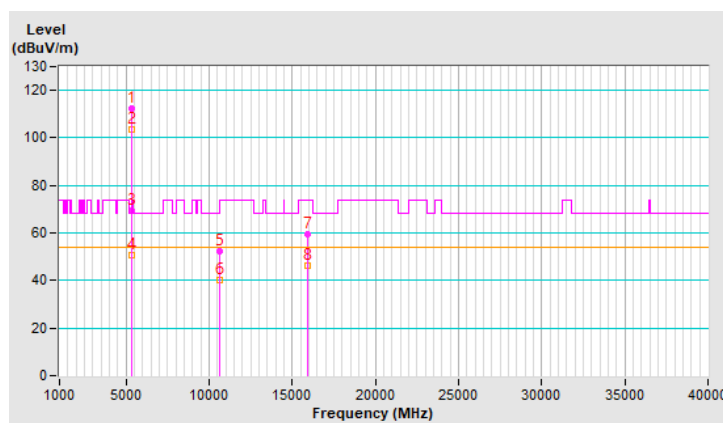


RF Mode	TX 802.11n (HT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	112.3 PK			1.14 H	114	107.8	4.5
2	*5320.00	103.3 AV			1.14 H	114	98.8	4.5
3	5350.00	69.6 PK	74.0	-4.4	1.14 H	114	65.0	4.6
4	5350.00	50.7 AV	54.0	-3.3	1.14 H	114	46.1	4.6
5	10640.00	52.4 PK	74.0	-21.6	1.24 H	216	38.1	14.3
6	10640.00	40.1 AV	54.0	-13.9	1.24 H	216	25.8	14.3
7	15960.00	59.4 PK	74.0	-14.6	2.63 H	229	45.5	13.9
8	15960.00	46.1 AV	54.0	-7.9	2.63 H	229	32.2	13.9

Remarks:

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

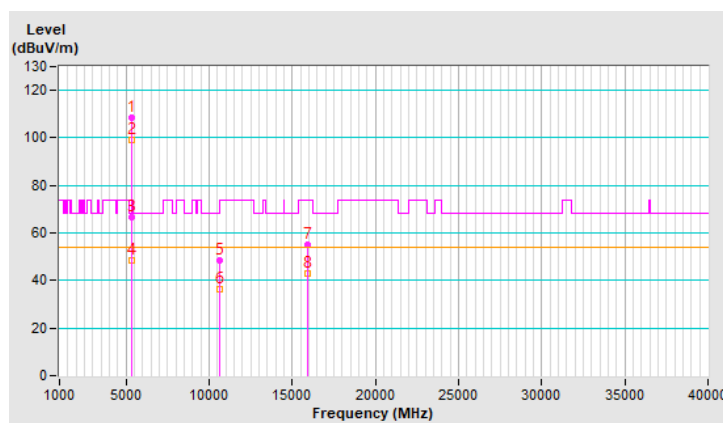


RF Mode	TX 802.11n (HT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	108.7 PK			1.03 V	71	104.2	4.5
2	*5320.00	99.3 AV			1.03 V	71	94.8	4.5
3	5350.00	66.7 PK	74.0	-7.3	1.03 V	71	62.1	4.6
4	5350.00	48.3 AV	54.0	-5.7	1.03 V	71	43.7	4.6
5	10640.00	48.2 PK	74.0	-25.8	2.66 V	330	33.9	14.3
6	10640.00	36.2 AV	54.0	-17.8	2.66 V	330	21.9	14.3
7	15960.00	55.2 PK	74.0	-18.8	3.97 V	176	41.3	13.9
8	15960.00	43.1 AV	54.0	-10.9	3.97 V	176	29.2	13.9

Remarks:

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

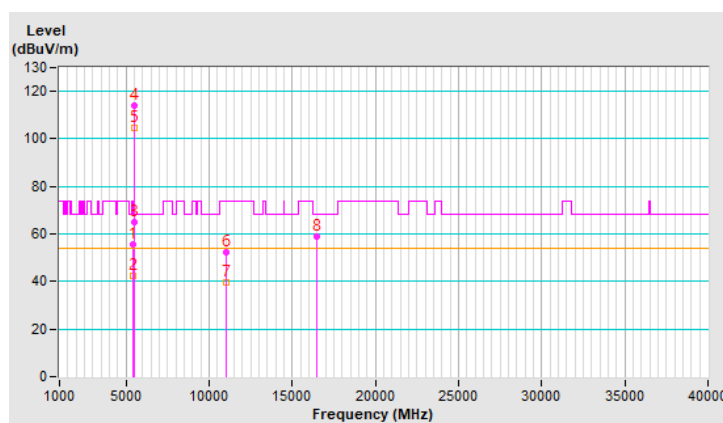


RF Mode	TX 802.11n (HT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.5 PK	74.0	-18.5	1.19 H	250	50.7	4.8
2	5460.00	42.3 AV	54.0	-11.7	1.19 H	250	37.5	4.8
3	#5470.00	64.9 PK	68.2	-3.3	1.19 H	250	60.1	4.8
4	*5500.00	114.0 PK			1.19 H	250	109.2	4.8
5	*5500.00	104.5 AV			1.19 H	250	99.7	4.8
6	11000.00	52.1 PK	74.0	-21.9	1.25 H	212	37.3	14.8
7	11000.00	39.8 AV	54.0	-14.2	1.25 H	212	25.0	14.8
8	#16500.00	59.1 PK	68.2	-9.1	2.66 H	229	43.8	15.3

Remarks:

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

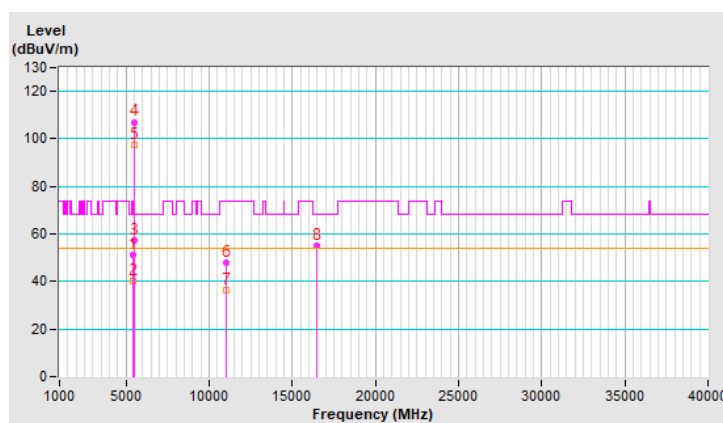


RF Mode	TX 802.11n (HT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.1 PK	74.0	-22.9	1.30 V	330	46.3	4.8
2	5460.00	40.3 AV	54.0	-13.7	1.30 V	330	35.5	4.8
3	#5470.00	57.2 PK	68.2	-11.0	1.30 V	330	52.4	4.8
4	*5500.00	107.1 PK			1.30 V	330	102.3	4.8
5	*5500.00	97.6 AV			1.30 V	330	92.8	4.8
6	11000.00	48.0 PK	74.0	-26.0	2.65 V	327	33.2	14.8
7	11000.00	36.1 AV	54.0	-17.9	2.65 V	327	21.3	14.8
8	#16500.00	55.0 PK	68.2	-13.2	3.94 V	188	39.7	15.3

Remarks:

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

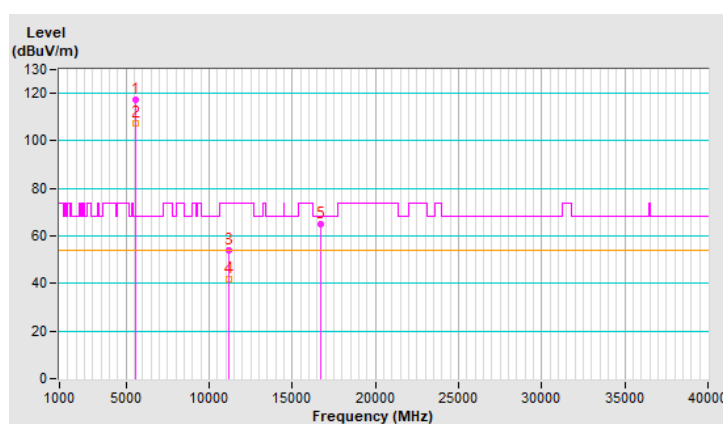


RF Mode	TX 802.11n (HT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	117.2 PK			1.18 H	239	112.4	4.8
2	*5580.00	107.6 AV			1.18 H	239	102.8	4.8
3	11160.00	53.9 PK	74.0	-20.1	1.23 H	209	39.3	14.6
4	11160.00	41.6 AV	54.0	-12.4	1.23 H	209	27.0	14.6
5	#16740.00	65.1 PK	68.2	-3.1	2.52 H	91	48.3	16.8

Remarks:

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

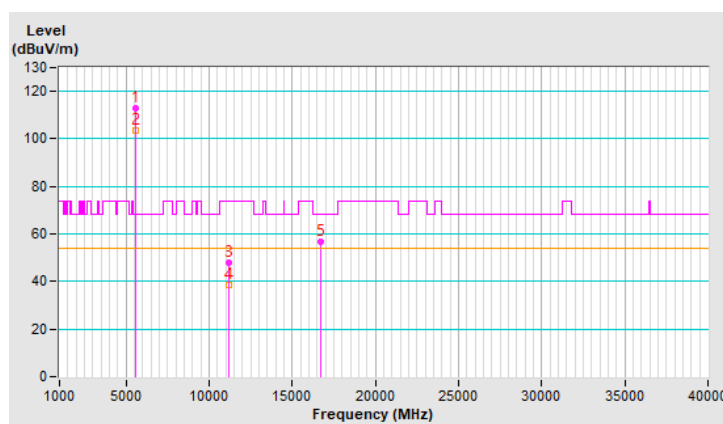


RF Mode	TX 802.11n (HT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	113.0 PK			1.36 V	335	108.2	4.8
2	*5580.00	103.7 AV			1.36 V	335	98.9	4.8
3	11160.00	47.8 PK	74.0	-26.2	2.62 V	313	33.2	14.6
4	11160.00	38.5 AV	54.0	-15.5	2.62 V	313	23.9	14.6
5	#16740.00	56.5 PK	68.2	-11.7	3.91 V	194	39.7	16.8

Remarks:

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

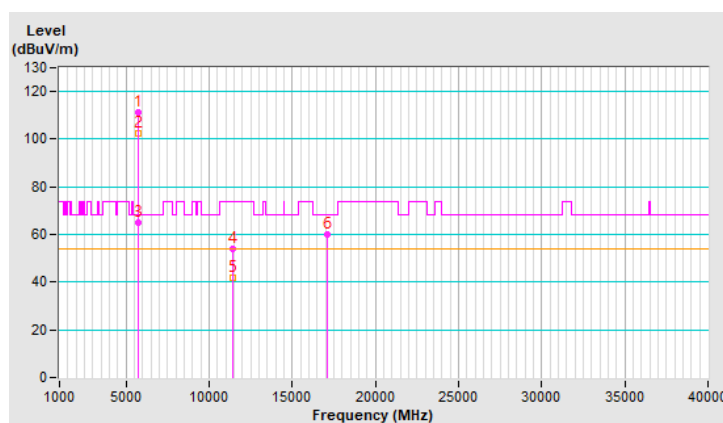


RF Mode	TX 802.11n (HT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.5 PK			1.09 H	241	106.8	4.7
2	*5700.00	102.5 AV			1.09 H	241	97.8	4.7
3	#5725.00	64.9 PK	68.2	-3.3	1.09 H	241	60.0	4.9
4	11400.00	54.0 PK	74.0	-20.0	1.27 H	222	38.6	15.4
5	11400.00	41.8 AV	54.0	-12.2	1.27 H	222	26.4	15.4
6	#17100.00	60.2 PK	68.2	-8.0	2.67 H	244	41.7	18.5

Remarks:

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

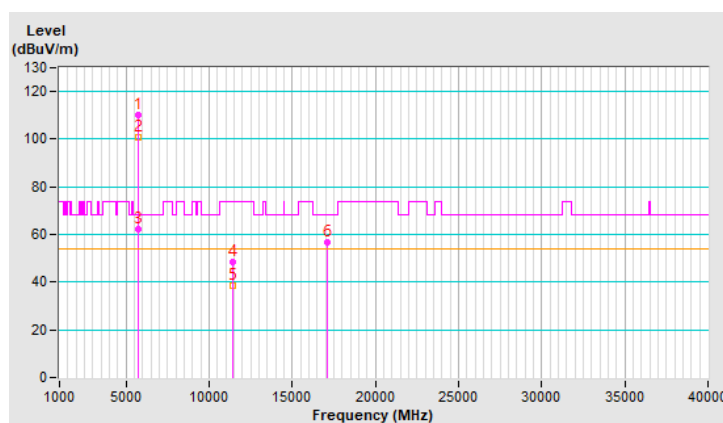


RF Mode	TX 802.11n (HT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	110.4 PK			1.27 V	338	105.7	4.7
2	*5700.00	100.6 AV			1.27 V	338	95.9	4.7
3	#5725.00	62.4 PK	68.2	-5.8	1.27 V	338	57.5	4.9
4	11400.00	48.3 PK	74.0	-25.7	2.58 V	320	32.9	15.4
5	11400.00	38.7 AV	54.0	-15.3	2.58 V	320	23.3	15.4
6	#17100.00	56.8 PK	68.2	-11.4	3.98 V	197	38.3	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.

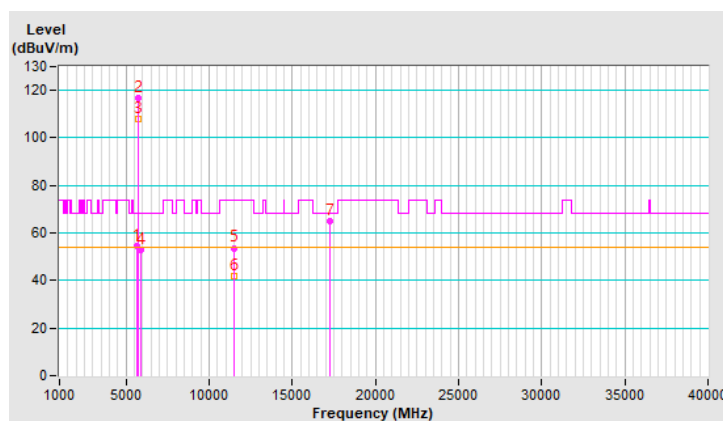


RF Mode	TX 802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5622.24	54.3 PK	68.2	-13.9	1.07 H	242	49.4	4.9
2	*5745.00	116.9 PK			1.07 H	242	111.8	5.1
3	*5745.00	107.7 AV			1.07 H	242	102.6	5.1
4	#5931.93	53.0 PK	68.2	-15.2	1.07 H	242	47.5	5.5
5	11490.00	53.7 PK	74.0	-20.3	1.22 H	229	38.6	15.1
6	11490.00	41.7 AV	54.0	-12.3	1.22 H	229	26.6	15.1
7	#17235.00	65.1 PK	68.2	-3.1	2.63 H	218	46.8	18.3

Remarks:

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

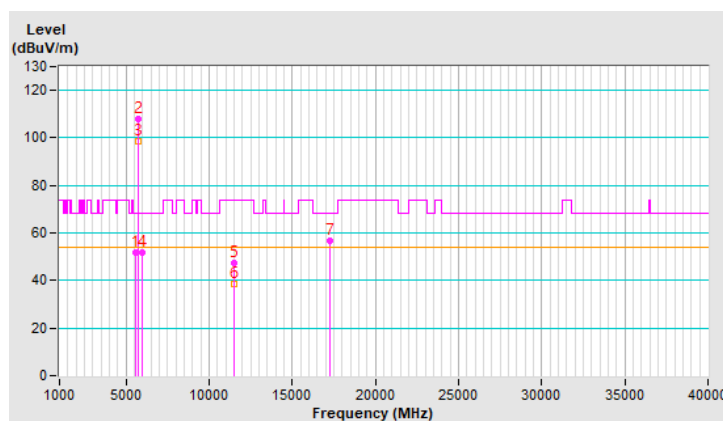


RF Mode	TX 802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5609.04	52.0 PK	68.2	-16.2	1.29 V	330	47.1	4.9
2	*5745.00	107.9 PK			1.29 V	330	102.8	5.1
3	*5745.00	98.5 AV			1.29 V	330	93.4	5.1
4	#5992.35	51.9 PK	68.2	-16.3	1.29 V	330	46.5	5.4
5	11490.00	47.4 PK	74.0	-26.6	2.58 V	320	32.3	15.1
6	11490.00	38.5 AV	54.0	-15.5	2.58 V	320	23.4	15.1
7	#17235.00	56.7 PK	68.2	-11.5	3.98 V	197	38.4	18.3

Remarks:

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

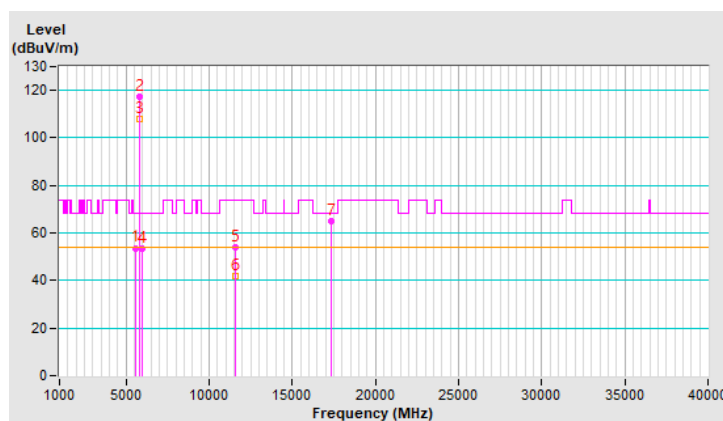


RF Mode	TX 802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5566.99	53.7 PK	68.2	-14.5	1.07 H	242	48.9	4.8
2	*5785.00	117.1 PK			1.07 H	242	111.9	5.2
3	*5785.00	108.0 AV			1.07 H	242	102.8	5.2
4	#5975.43	53.6 PK	68.2	-14.6	1.07 H	242	48.1	5.5
5	11570.00	53.9 PK	74.0	-20.1	1.27 H	222	38.8	15.1
6	11570.00	42.0 AV	54.0	-12.0	1.27 H	222	26.9	15.1
7	#17355.00	65.0 PK	68.2	-3.2	2.57 H	215	46.1	18.9

Remarks:

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

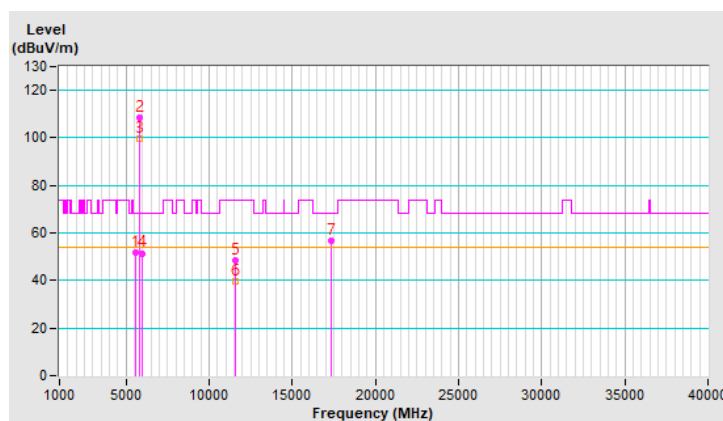


RF Mode	TX 802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

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	#5570.62	51.8 PK	68.2	-16.4	1.29 V	330	47.0	4.8
2	*5785.00	108.7 PK			1.29 V	330	103.5	5.2
3	*5785.00	99.5 AV			1.29 V	330	94.3	5.2
4	#5981.02	51.5 PK	68.2	-16.7	1.29 V	330	46.0	5.5
5	11570.00	48.7 PK	74.0	-25.3	2.58 V	328	33.6	15.1
6	11570.00	39.4 AV	54.0	-14.6	2.58 V	328	24.3	15.1
7	#17355.00	56.7 PK	68.2	-11.5	3.94 V	175	37.8	18.9

Remarks:

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

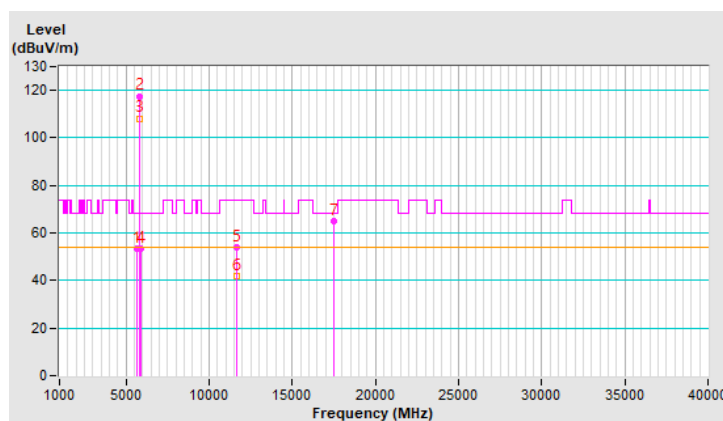


RF Mode	TX 802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.17	53.5 PK	68.2	-14.7	1.14 H	242	48.6	4.9
2	*5825.00	117.6 PK			1.14 H	242	112.3	5.3
3	*5825.00	108.2 AV			1.14 H	242	102.9	5.3
4	#5927.35	53.6 PK	68.2	-14.6	1.14 H	242	48.1	5.5
5	11650.00	54.0 PK	74.0	-20.0	1.27 H	212	39.0	15.0
6	11650.00	42.0 AV	54.0	-12.0	1.27 H	212	27.0	15.0
7	#17475.00	64.9 PK	68.2	-3.3	2.63 H	41	45.9	19.0

Remarks:

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

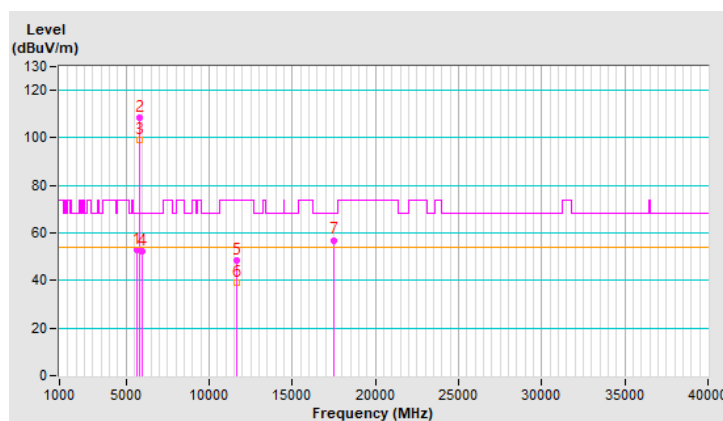


RF Mode	TX 802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

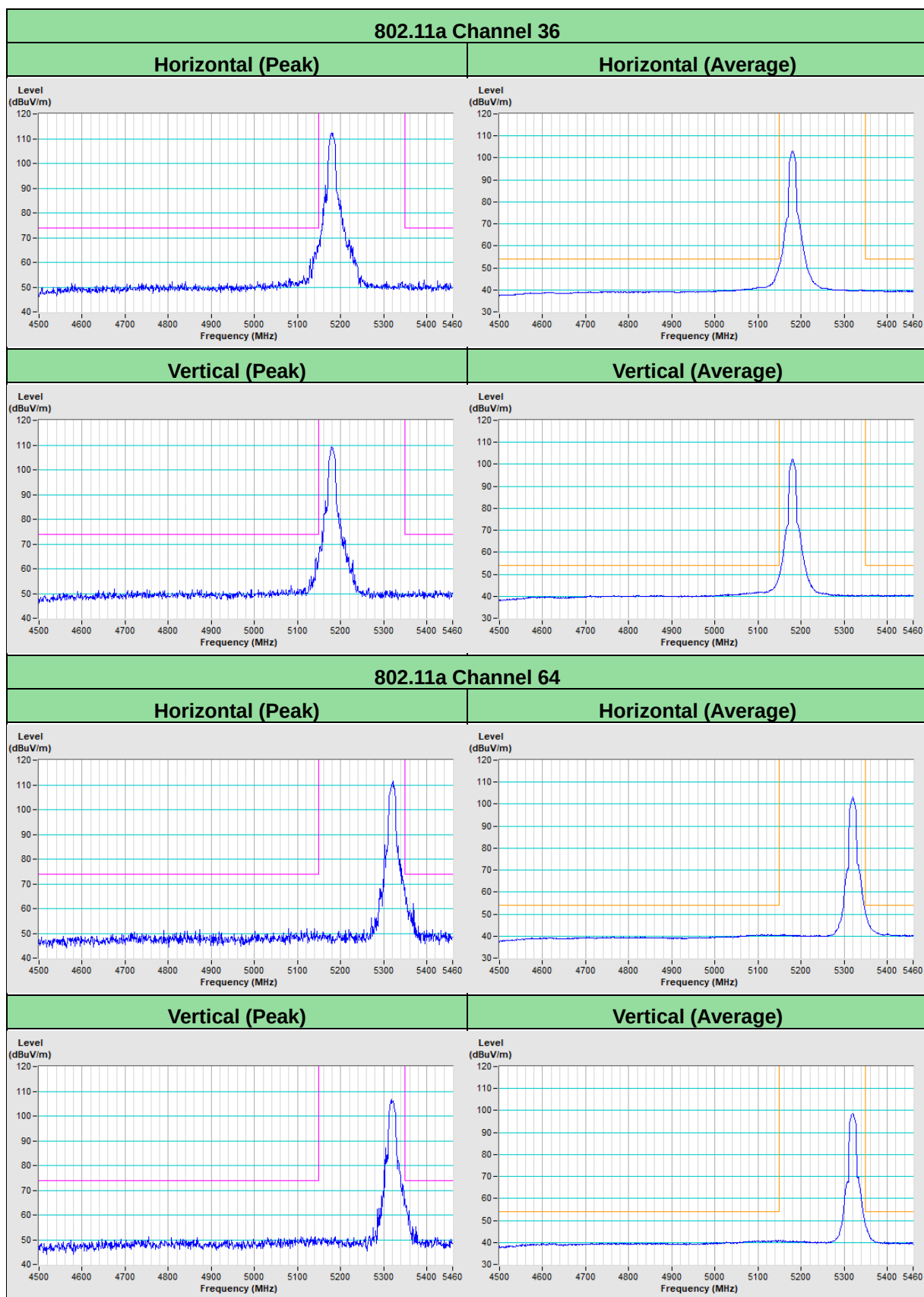
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.71	53.1 PK	68.2	-15.1	1.50 V	327	48.2	4.9
2	*5825.00	108.4 PK			1.50 V	327	103.1	5.3
3	*5825.00	99.3 AV			1.50 V	327	94.0	5.3
4	#6005.51	52.4 PK	68.2	-15.8	1.50 V	327	47.0	5.4
5	11650.00	48.5 PK	74.0	-25.5	2.63 V	325	33.5	15.0
6	11650.00	39.3 AV	54.0	-14.7	2.63 V	325	24.3	15.0
7	#17475.00	57.0 PK	68.2	-11.2	3.88 V	193	38.0	19.0

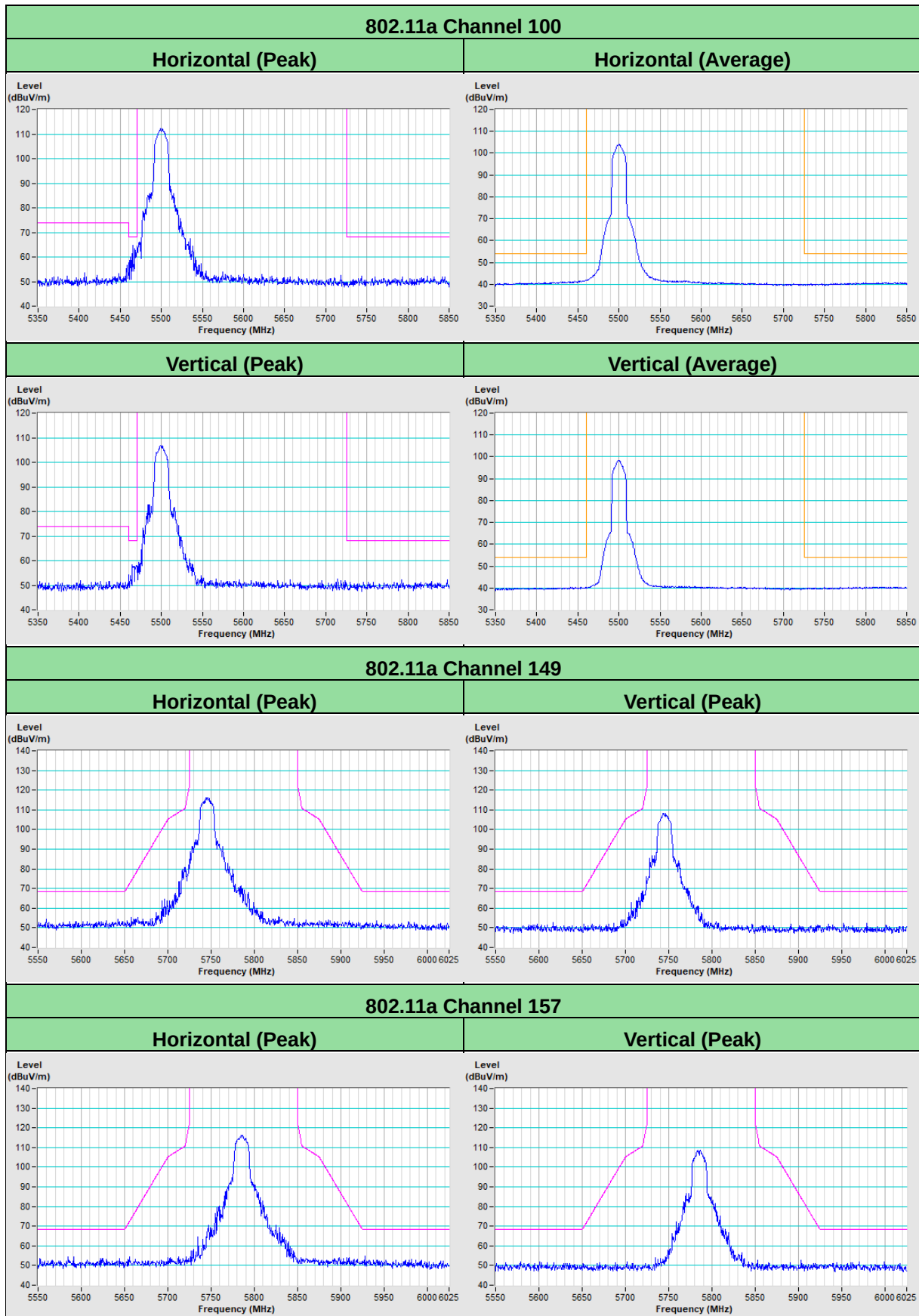
Remarks:

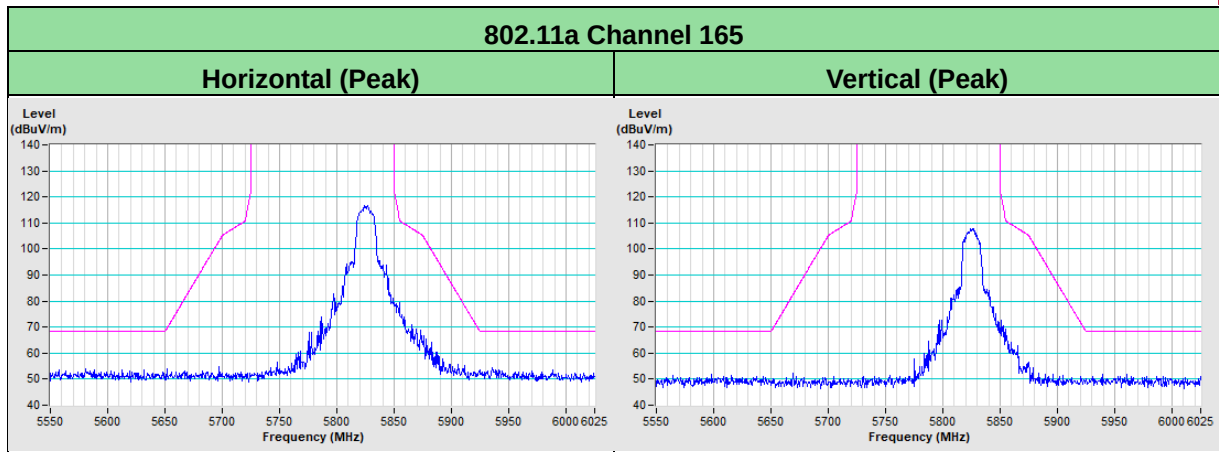
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency,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

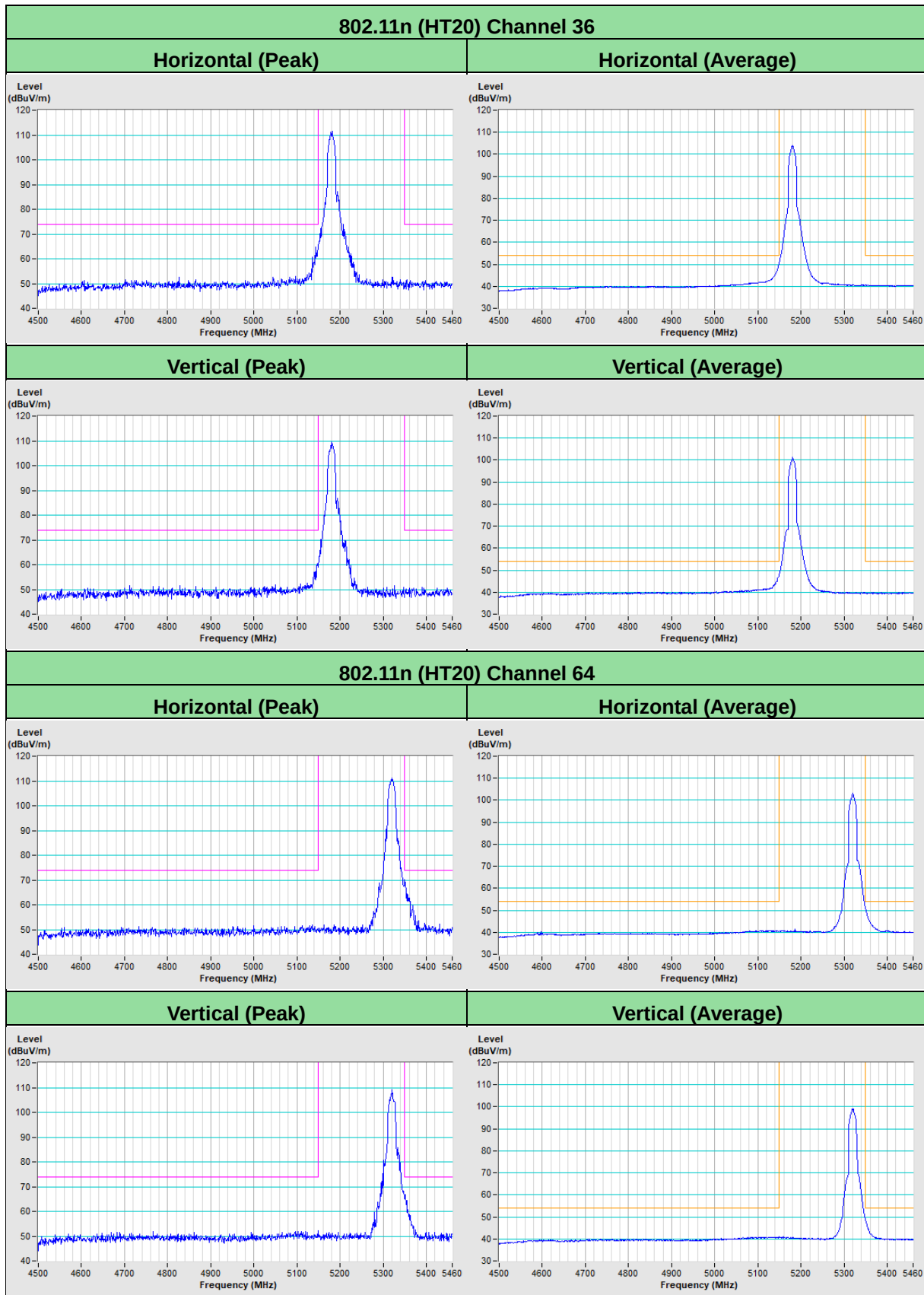


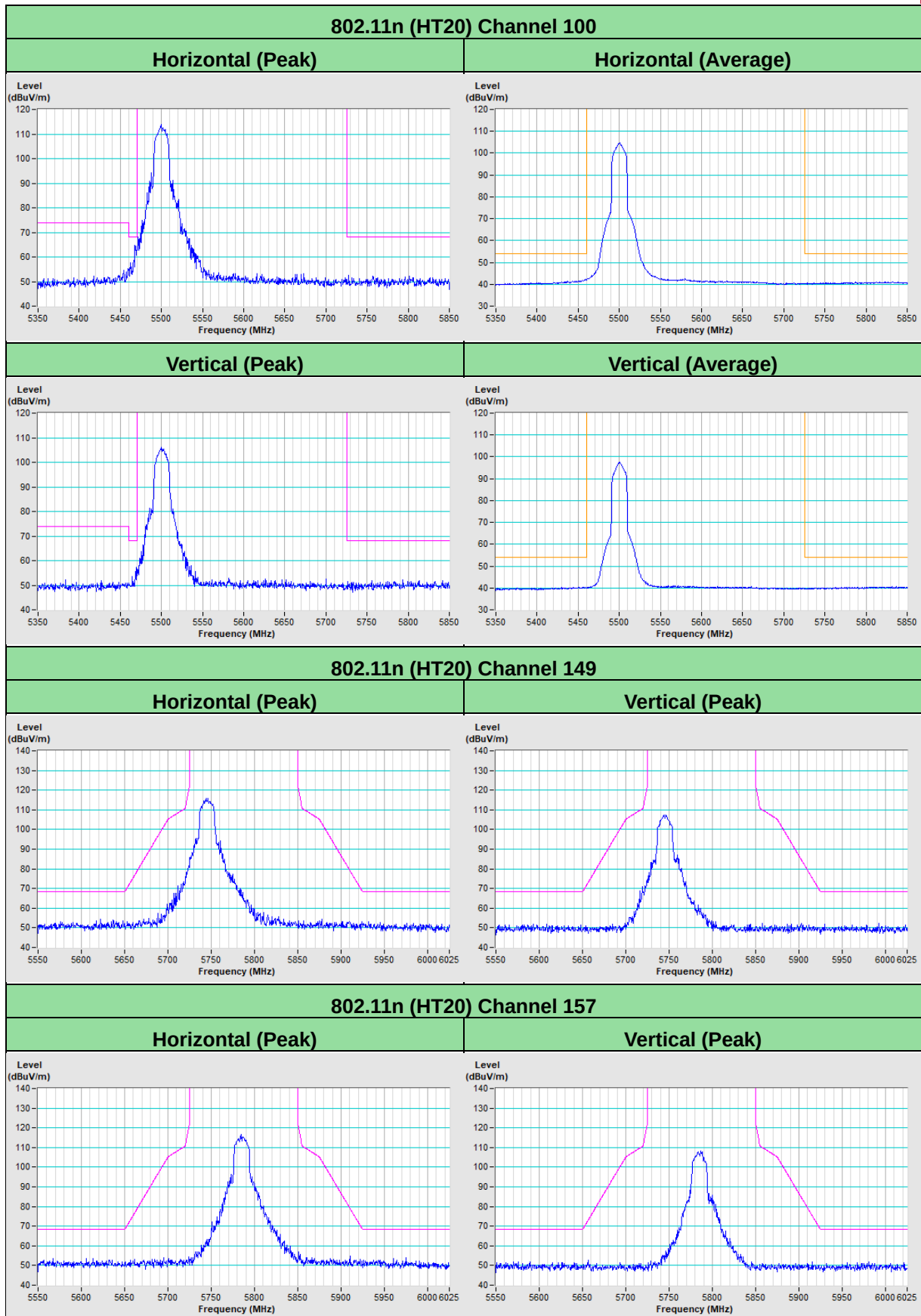
Plot of Band Edge

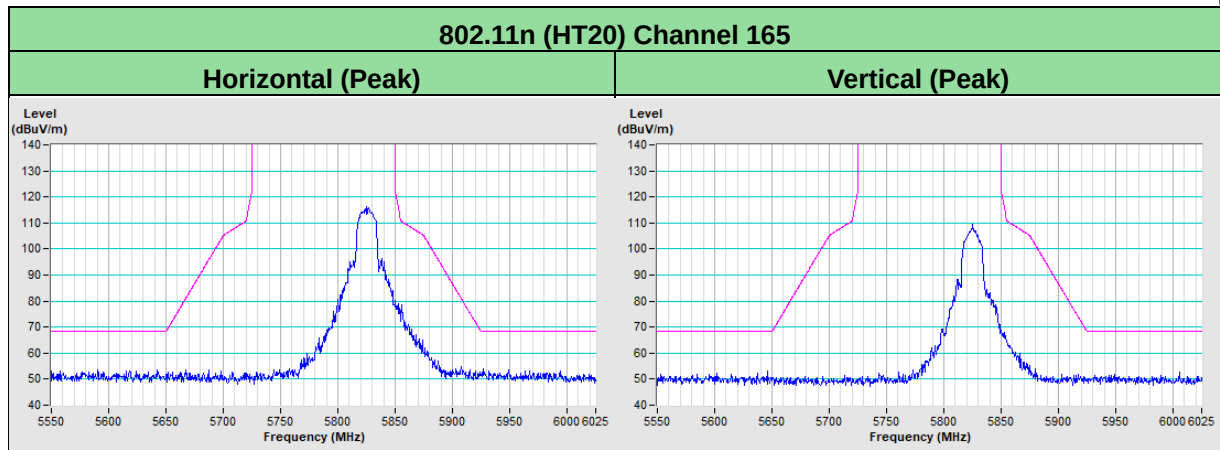












8 Pictures of Test Arrangements

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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