FCC Test Report

Report No.:	RFBBQZ-WTW-P21020623B
FCC ID:	PY321100520
Test Model:	WAX630
Received Date:	Mar. 05, 2021
Test Date:	Apr. 12 ~ May 18, 2021
Issued Date:	Jun. 04, 2021
Applicant and Manufacturer:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P21020623B	Original release	Jun. 04, 2021

1 Certificate of Conformity

Product:	NETGEAR® Insight Managed WiFi 6 AX6000 Tri-band Multi-Gig Access Point
Brand:	NETGEAR
Test Model:	WAX630
Sample Status:	Engineering sample
Applicant:	NETGEAR, Inc.
Test Date:	Apr. 12 ~ May 18, 2021
Standards:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

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.

Prepared by : Celine Chou , **Date:** Jun. 04, 2021

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Jun. 04, 2021

Bruce Chen / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.41dB at 19.09400MHz.
15.407(b) (1/2/3/4(i/ii)/8)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is-0.2dB at 5350.00MHz and 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

Note:

1. For U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
2. 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	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	NETGEAR® Insight Managed WiFi 6 AX6000 Tri-band Multi-Gig Access Point
Brand	NETGEAR
Test Model	WAX630
Sample Status	Engineering sample
Power Supply Rating	12Vdc from adapter 55.5Vdc for POE
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.3Mbps 802.11ax: up to 2402Mbps
Operating Frequency	5260 ~ 5320MHz, 5500 ~ 5720MHz
Number of Channel	5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6 802.11ac (VHT80), 802.11ax (HE80): 3
Output Power	CDD Mode: 5260 ~ 5320MHz: 234.064mW 5500 ~ 5720MHz: 239.036mW Beamforming Mode: 5260 ~ 5320MHz: 234.064mW 5500 ~ 5720MHz: 239.036mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	Adapter
Cable Supplied	N/A

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the original report (BV CPS report no.: RFBBQZ-WTW-P21020623-1) is adding 5.26GHz to 5.32GHz and 5.50GHz to 5.72GHz by software.

2. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	Beamforming Mode	TX Function
802.11a	Not Support	4TX
802.11n (HT20)	Support	4TX
802.11n (HT40)	Support	4TX
802.11ac (VHT20)	Support	4TX
802.11ac (VHT40)	Support	4TX
802.11ac (VHT80)	Support	4TX
802.11ax (HE20)	Support	4TX
802.11ax (HE40)	Support	4TX
802.11ax (HE80)	Support	4TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40/VHT80 on 802.11ac mode and HE20/HE40/HE80 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)
* For 802.11n and 802.11ac, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

3. The following RF Modules are for the EUT.

RF Module	Band	Antenna No.
Module 1	2.4G	2.4G Ant. 0, 1, 2, 3
	UNII-1/UNII-2A	5G-L Ant. 0, 1, 2, 3
Module 2	UNII-2C/UNII-3	5G-H Ant. 0, 1, 2, 3

4. The EUT consumes power from the following adapters.

Adapter 1	
Brand	NETGEAR
Model	AD2150F10
Input Power	100-120Vac, 50/60Hz, 1.0A
Output Power	+12Vdc, 3.5A
Power Line	1.8m cable without core attached on adapter

Adapter 2	
Brand	NETGEAR
Model	2ABN042F NA
Input Power	100-120Vac, 50/60Hz, 1.3A
Output Power	+12Vdc, 3.5A
Power Line	1.82m cable without core attached on adapter

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

POE injector (support unit only)	
Brand	BUFFALO
Model	BIJ-POE-1P/HG
Input Power	100-240Vac, 50-60Hz, 1.1A
Output Power	55.5Vdc, 0.63A

5. The following antennas were provided to the EUT.

Ant. Type	Dipole			
Connecter Type	i-pex(MHF)			
Directional Gain (dBi)				
2400-2500MHz	5180-5240MHz	5260-5320MHz	5500-5720MHz	5745-5825MHz
5.85	5.91	6.15	6.03	5.86

* For detailed antenna information, please refer to the Operational Description-Antenna Specification report.

3.2 Description of Test Modes

For 5260 ~ 5320MHz:

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
58	5290MHz

For 5500 ~ 5720MHz:

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	EUT with Adapter
B	-	√	√	-	EUT with POE

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement
RE<1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
APCM: Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.
2. Radiated emission test (below 1GHz) and power line conducted emission test items chosen the worst maximum power.

Radiated Emission Test (Above 1GHz):

☒ 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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0

Radiated Emission Test (Below 1GHz):

☒ 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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11ax (HE20)	5260-5320	52 to 64	140	OFDMA	MCS0
	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0

Power Line Conducted Emission Test:

☒ 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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11ax (HE20)	5260-5320	52 to 64	140	OFDMA	MCS0
	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0

Transmit Power Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ 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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	29.3
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	6.5
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	29.3
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0

Bandwidth, Peak Power Spectral Density and Frequency Stability Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ 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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0

Test Condition:

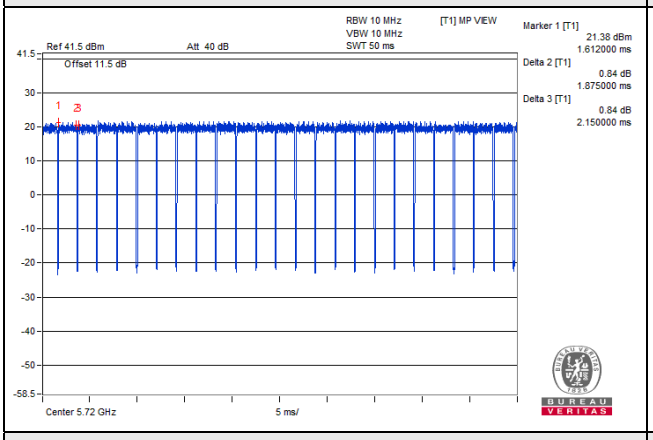
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 70% RH	120Vac, 60Hz	Han Wu
RE<1G	25 deg. C, 70% RH	120Vac, 60Hz 55.5Vdc	Han Wu
PLC	25 deg. C, 75% RH	120Vac, 60Hz 55.5Vdc	Noah Chang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Ivan Tseng

3.3 Duty Cycle of Test Signal

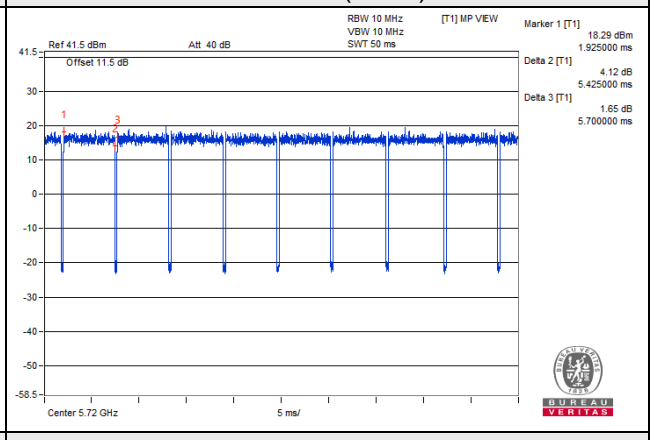
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = 1.875/2.150 = 0.872, Duty factor = 10 * log (1/0.872) = 0.59
802.11ax (HE20): Duty cycle = 5.425/5.700 = 0.952, Duty factor = 10 * log (1/0.952) = 0.21
802.11ax (HE40): Duty cycle = 5.363/6.050 = 0.886, Duty factor = 10 * log (1/0.886) = 0.52
802.11ax (HE80): Duty cycle = 5.387/5.725 = 0.941, Duty factor = 10 * log (1/0.941) = 0.26

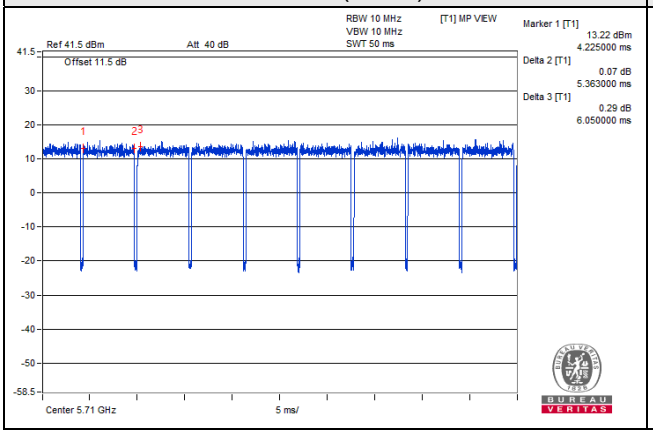
802.11a



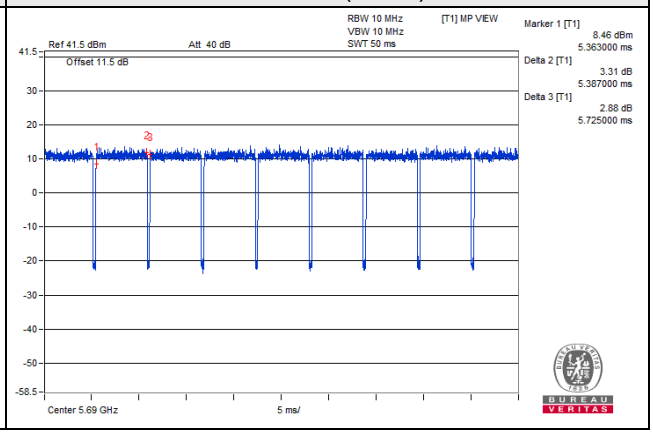
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	N/A	-
B.	Load	N/A	N/A	N/A	N/A	-
C.	POE	BUFFALO	BIJ-POE-1P/HG	N/A	N/A	Provided by Client

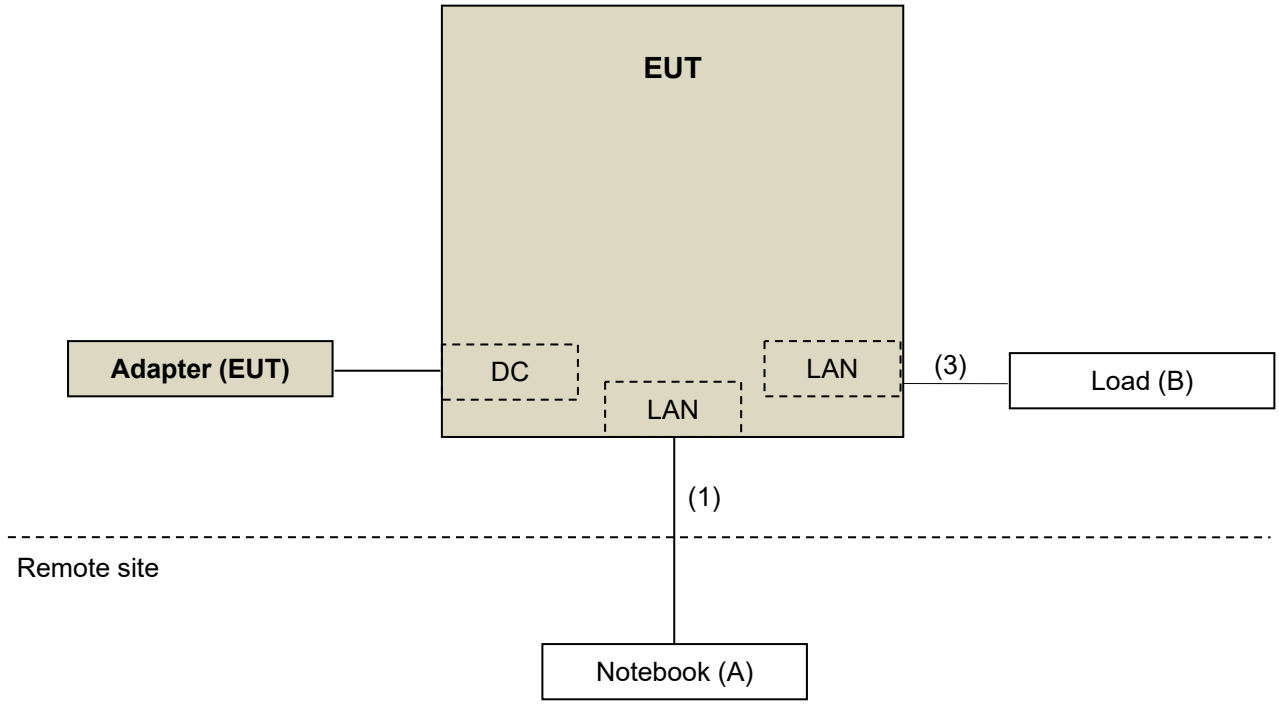
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

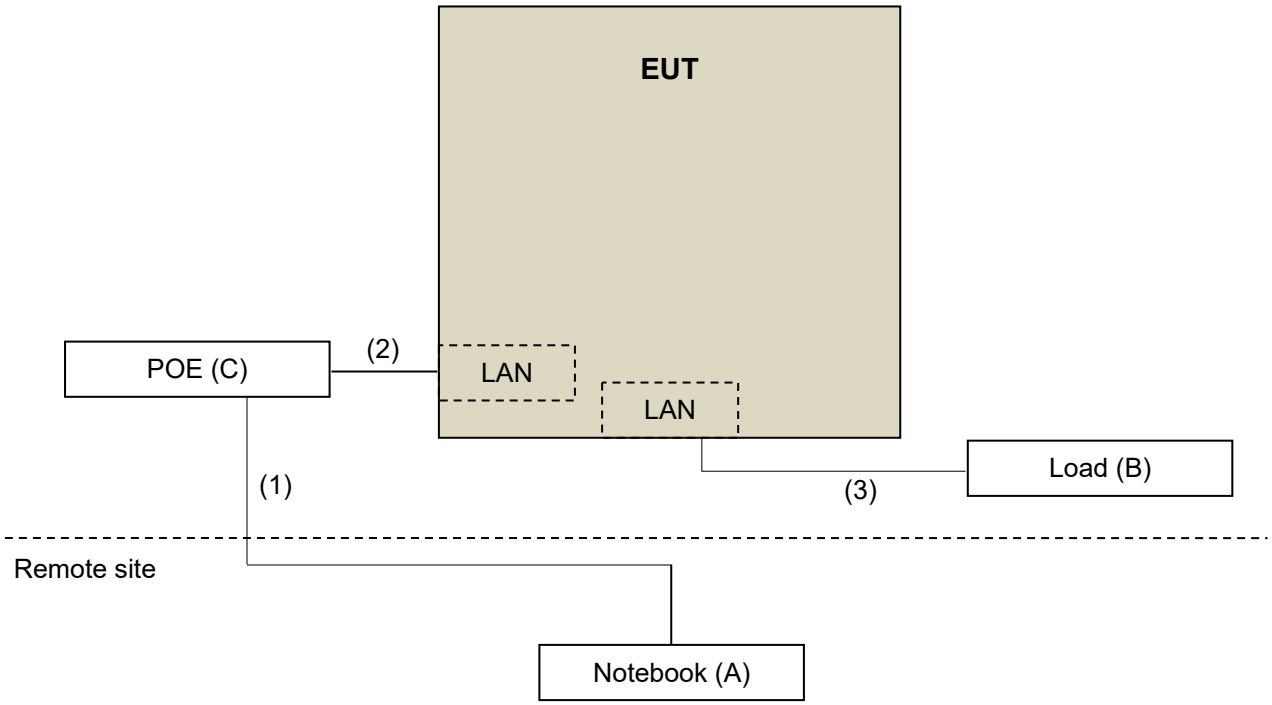
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN	1	6	N	0	RJ45, Cat5e
2.	LAN	1	1.5	N	0	RJ45, Cat5e
3.	LAN	1	6	N	0	RJ45, Cat5e

3.4.1 Configuration of System under Test

Test Mode A



Test Mode B



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test standard:
FCC Part 15, Subpart E (15.407)
ANSI C63.10:2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

Note:

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 1000MHz, 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 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

<table>
<tr><td colspan="2">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="2" rowspan="2">789033 D02 General UNII Test Procedure New Rules v02r01</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK: 74 (dBµV/m)</td><td>AV: 54 (dBµV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK: -27 (dBm/MHz)</td><td rowspan="3">PK: 68.2(dBµV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☒</td><td>15.407(b)(4)(i)</td><td>PK: -27 (dBm/MHz) *1
PK: 10 (dBm/MHz) *2
PK: 15.6 (dBm/MHz) *3
PK: 27 (dBm/MHz) *4</td><td>PK: 68.2(dBµV/m) *1
PK: 105.2 (dBµV/m) *2
PK: 110.8(dBµV/m) *3
PK: 122.2 (dBµV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="5">*1 beyond 75 MHz or more above of the band edge.
*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.
*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.
*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.</td></tr>
</table>

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Dec. 31, 2020	Dec. 30, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 16, 2020	Sep. 15, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 03, 2020	Nov. 02, 2021
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna TESEQ	HLA 6121	45745	Jul. 06, 2020	Jul. 05, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jun. 08, 2020	Jun. 07, 2021
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 08, 2020	Jun. 07, 2021
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH4-01	Aug. 16, 2020	Aug. 15, 2021
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Aug. 16, 2020	Aug. 15, 2021
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jun. 08, 2020	Jun. 07, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jun. 08, 2020	Jun. 07, 2021
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 04, 2020	Sep. 03, 2021
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004/MY55190007/MY55210005	Jul. 13, 2020	Jul. 12, 2021

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) 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.

f. The test-receiver system was set to peak and average detect 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz. (802.11a: RBW = 1MHz, VBW = 1kHz; 802.11ax (HE20): RBW = 1MHz, VBW = 1kHz; 802.11ax (HE40): RBW = 1MHz, VBW = 1kHz; 802.11ax (HE80): RBW = 1MHz, VBW = 1kHz)

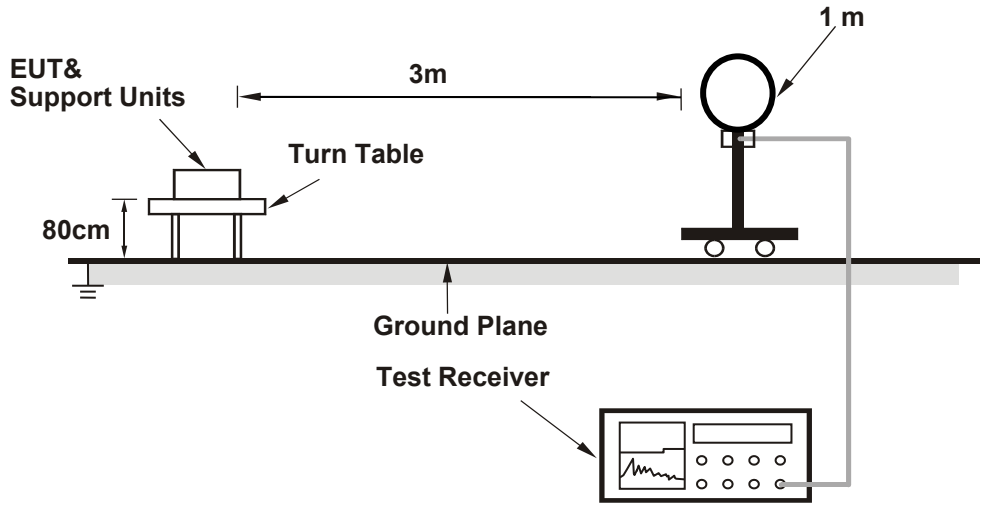
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

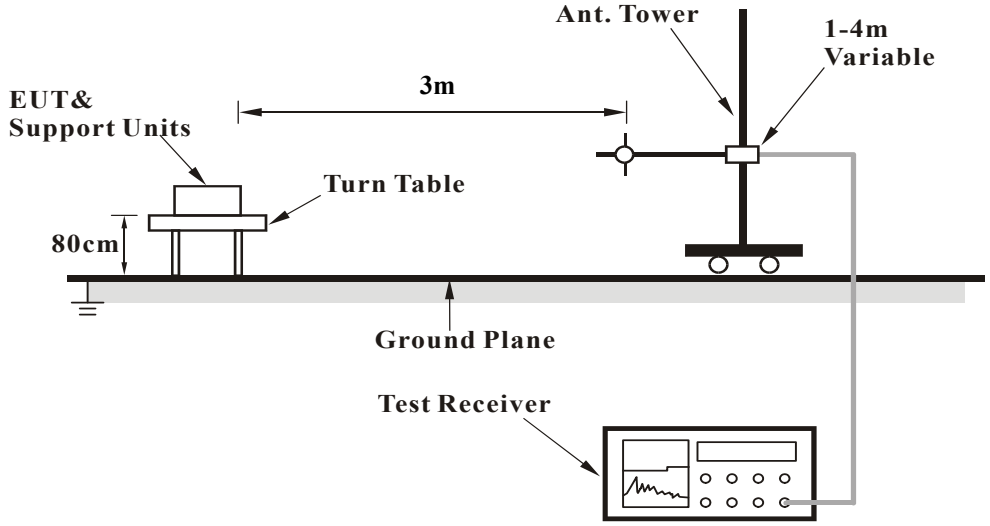
No deviation.

4.1.5 Test Setup

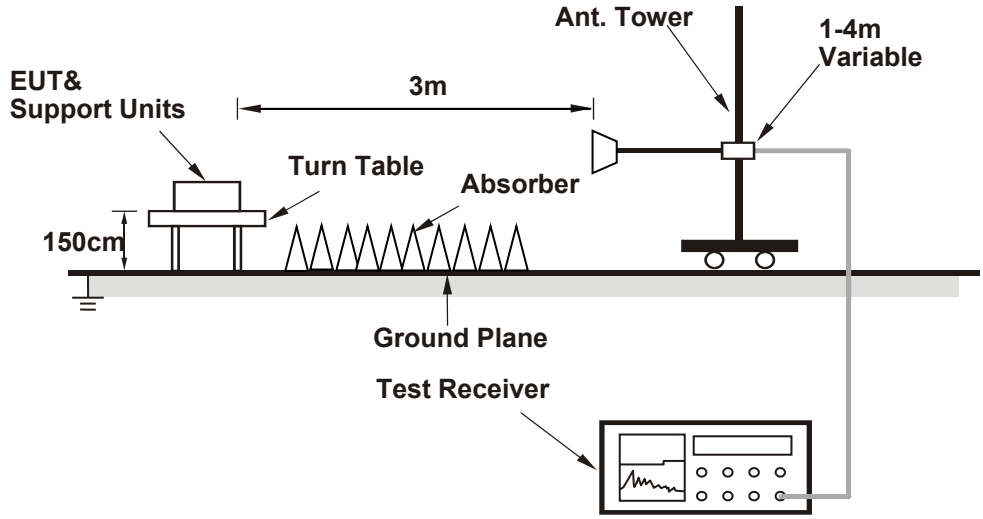
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz data:

RF Mode	TX 802.11a	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.3 PK	74.0	-15.7	1.46 H	314	47.7	10.6
2	5150.00	45.6 AV	54.0	-8.4	1.46 H	314	35.0	10.6
3	*5260.00	113.8 PK			1.46 H	314	74.2	39.6
4	*5260.00	105.7 AV			1.46 H	314	66.1	39.6
5	#10520.00	58.8 PK	68.2	-9.4	1.84 H	27	37.9	20.9
6	15780.00	61.4 PK	74.0	-12.6	1.52 H	123	38.3	23.1
7	15780.00	50.9 AV	54.0	-3.1	1.52 H	123	27.8	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.0 PK	74.0	-16.0	1.01 V	79	47.4	10.6
2	5150.00	47.0 AV	54.0	-7.0	1.01 V	79	36.4	10.6
3	*5260.00	118.1 PK			1.01 V	79	78.5	39.6
4	*5260.00	108.2 AV			1.01 V	79	68.6	39.6
5	#10520.00	61.1 PK	68.2	-7.1	2.22 V	166	40.2	20.9
6	15780.00	64.7 PK	74.0	-9.3	2.14 V	187	41.6	23.1
7	15780.00	52.0 AV	54.0	-2.0	2.14 V	187	28.9	23.1

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.7 PK			1.22 H	316	73.1	39.6
2	*5300.00	103.4 AV			1.22 H	316	63.8	39.6
3	10600.00	60.2 PK	74.0	-13.8	1.78 H	250	38.3	21.9
4	10600.00	49.8 AV	54.0	-4.2	1.78 H	250	27.9	21.9
5	15900.00	61.3 PK	74.0	-12.7	1.63 H	111	37.3	24.0
6	15900.00	51.5 AV	54.0	-2.5	1.63 H	111	27.5	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	115.4 PK			1.47 V	56	75.8	39.6
2	*5300.00	103.9 AV			1.47 V	56	64.3	39.6
3	10600.00	60.7 PK	74.0	-13.3	2.46 V	177	38.8	21.9
4	10600.00	50.1 AV	54.0	-3.9	2.46 V	177	28.2	21.9
5	15900.00	64.9 PK	74.0	-9.1	2.14 V	188	40.9	24.0
6	15900.00	52.3 AV	54.0	-1.7	2.14 V	188	28.3	24.0

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.

RF Mode	TX 802.11a	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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			1.08 H	8	71.7	39.7
2	*5320.00	104.0 AV			1.08 H	8	64.3	39.7
3	5350.00	56.6 PK	74.0	-17.4	1.08 H	8	46.4	10.2
4	5350.00	47.8 AV	54.0	-6.2	1.08 H	8	37.6	10.2
5	10640.00	61.2 PK	74.0	-12.8	2.46 H	174	39.2	22.0
6	10640.00	50.6 AV	54.0	-3.4	2.46 H	174	28.6	22.0
7	15960.00	62.6 PK	74.0	-11.4	1.33 H	62	38.8	23.8
8	15960.00	52.2 AV	54.0	-1.8	1.33 H	62	28.4	23.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	112.5 PK			1.16 V	57	72.8	39.7
2	*5320.00	104.2 AV			1.16 V	57	64.5	39.7
3	5350.00	66.4 PK	74.0	-7.6	1.16 V	57	56.2	10.2
4	**5350.00**	**53.8 AV**	**54.0**	**-0.2**	**1.16 V**	**57**	**43.6**	**10.2**
5	10640.00	61.8 PK	74.0	-12.2	2.26 V	159	39.8	22.0
6	10640.00	50.3 AV	54.0	-3.7	2.26 V	159	28.3	22.0
7	15960.00	63.4 PK	74.0	-10.6	2.47 V	183	39.6	23.8
8	15960.00	52.7 AV	54.0	-1.3	2.47 V	183	28.9	23.8

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.

RF Mode	TX 802.11a	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	62.9 PK	74.0	-11.1	1.47 H	354	52.3	10.6
2	5460.00	51.3 AV	54.0	-2.7	1.47 H	354	40.7	10.6
3	#5470.00	64.3 PK	68.2	-3.9	1.47 H	354	53.7	10.6
4	*5500.00	115.0 PK			1.47 H	354	74.8	40.2
5	*5500.00	106.9 AV			1.47 H	354	66.7	40.2
6	11000.00	62.4 PK	74.0	-11.6	1.92 H	253	39.6	22.8
7	11000.00	52.2 AV	54.0	-1.8	1.92 H	253	29.4	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.6 PK	74.0	-17.4	1.63 V	72	46.0	10.6
2	5460.00	45.9 AV	54.0	-8.1	1.63 V	72	35.3	10.6
3	#5470.00	63.0 PK	68.2	-5.2	1.63 V	72	52.4	10.6
4	*5500.00	116.9 PK			1.63 V	72	76.7	40.2
5	*5500.00	108.4 AV			1.63 V	72	68.2	40.2
6	11000.00	63.3 PK	74.0	-10.7	1.64 V	160	40.5	22.8
7	11000.00	53.0 AV	54.0	-1.0	1.64 V	160	30.2	22.8

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	115.7 PK			1.52 H	351	75.5	40.2
2	*5580.00	107.6 AV			1.52 H	351	67.4	40.2
3	11160.00	61.2 PK	74.0	-12.8	1.75 H	210	38.4	22.8
4	11160.00	51.0 AV	54.0	-3.0	1.75 H	210	28.2	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.5 PK			1.76 V	82	76.3	40.2
2	*5580.00	108.3 AV			1.76 V	82	68.1	40.2
3	11160.00	60.8 PK	74.0	-13.2	1.36 V	104	38.0	22.8
4	11160.00	50.4 AV	54.0	-3.6	1.36 V	104	27.6	22.8

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.

RF Mode	TX 802.11a	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	115.1 PK			1.40 H	346	74.6	40.5
2	*5700.00	107.0 AV			1.40 H	346	66.5	40.5
3	#5725.00	64.9 PK	68.2	-3.3	1.40 H	346	54.0	10.9
4	11400.00	62.1 PK	74.0	-11.9	2.93 H	300	38.5	23.6
5	11400.00	51.3 AV	54.0	-2.7	2.93 H	300	27.7	23.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	115.5 PK			1.63 V	77	75.0	40.5
2	*5700.00	107.2 AV			1.63 V	77	66.7	40.5
3	#5725.00	63.0 PK	68.2	-5.2	1.63 V	77	52.1	10.9
4	11400.00	62.4 PK	74.0	-11.6	1.88 V	152	38.8	23.6
5	11400.00	51.7 AV	54.0	-2.3	1.88 V	152	28.1	23.6

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	*5720.00	115.5 PK			1.33 H	351	74.9	40.6
2	*5720.00	107.0 AV			1.33 H	351	66.4	40.6
3	#5850.00	56.3 PK	68.2	-11.9	1.33 H	351	44.9	11.4
4	11440.00	61.8 PK	74.0	-12.2	1.68 H	2	38.3	23.5
5	11440.00	52.1 AV	54.0	-1.9	1.68 H	2	28.6	23.5
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	*5720.00	116.0 PK			1.79 V	77	75.4	40.6
2	*5720.00	107.5 AV			1.79 V	77	66.9	40.6
3	#5850.00	57.9 PK	68.2	-10.3	1.79 V	77	46.5	11.4
4	11440.00	62.0 PK	74.0	-12.0	1.91 V	262	38.5	23.5
5	11440.00	51.9 AV	54.0	-2.1	1.91 V	262	28.4	23.5

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.05 H	336	46.5	10.6
2	5150.00	45.5 AV	54.0	-8.5	1.05 H	336	34.9	10.6
3	*5260.00	114.2 PK			1.05 H	336	74.6	39.6
4	*5260.00	103.6 AV			1.05 H	336	64.0	39.6
5	#10520.00	58.9 PK	68.2	-9.3	1.94 H	62	38.0	20.9
6	15780.00	61.4 PK	74.0	-12.6	1.39 H	17	38.3	23.1
7	15780.00	50.9 AV	54.0	-3.1	1.39 H	17	27.8	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.8 PK	74.0	-15.2	1.00 V	76	48.2	10.6
2	5150.00	47.2 AV	54.0	-6.8	1.00 V	76	36.6	10.6
3	*5260.00	117.1 PK			1.00 V	76	77.5	39.6
4	*5260.00	105.1 AV			1.00 V	76	65.5	39.6
5	#10520.00	60.8 PK	68.2	-7.4	2.19 V	172	39.9	20.9
6	15780.00	64.0 PK	74.0	-10.0	2.19 V	188	40.9	23.1
7	15780.00	51.7 AV	54.0	-2.3	2.19 V	188	28.6	23.1

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	114.7 PK			1.46 H	331	75.1	39.6
2	*5300.00	103.0 AV			1.46 H	331	63.4	39.6
3	10600.00	60.3 PK	74.0	-13.7	2.77 H	352	38.4	21.9
4	10600.00	50.2 AV	54.0	-3.8	2.77 H	352	28.3	21.9
5	15900.00	62.7 PK	74.0	-11.3	1.00 H	224	38.7	24.0
6	15900.00	52.5 AV	54.0	-1.5	1.00 H	224	28.5	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	114.9 PK			1.51 V	12	75.3	39.6
2	*5300.00	103.2 AV			1.51 V	12	63.6	39.6
3	10600.00	60.5 PK	74.0	-13.5	2.32 V	176	38.6	21.9
4	10600.00	50.0 AV	54.0	-4.0	2.32 V	176	28.1	21.9
5	15900.00	64.6 PK	74.0	-9.4	2.11 V	185	40.6	24.0
6	15900.00	52.1 AV	54.0	-1.9	2.11 V	185	28.1	24.0

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	115.2 PK			1.42 H	345	75.5	39.7
2	*5320.00	102.5 AV			1.42 H	345	62.8	39.7
3	5350.00	61.2 PK	74.0	-12.8	1.42 H	345	51.0	10.2
4	5350.00	49.5 AV	54.0	-4.5	1.42 H	345	39.3	10.2
5	10640.00	61.0 PK	74.0	-13.0	1.45 H	306	39.0	22.0
6	10640.00	50.6 AV	54.0	-3.4	1.45 H	306	28.6	22.0
7	15960.00	62.1 PK	74.0	-11.9	2.13 H	289	38.3	23.8
8	15960.00	51.8 AV	54.0	-2.2	2.13 H	289	28.0	23.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	115.4 PK			1.00 V	32	75.7	39.7
2	*5320.00	102.7 AV			1.00 V	32	63.0	39.7
3	5350.00	65.5 PK	74.0	-8.5	1.55 V	32	55.3	10.2
4	**5350.00**	**53.8 AV**	**54.0**	**-0.2**	**1.55 V**	**32**	**43.6**	**10.2**
5	10640.00	61.6 PK	74.0	-12.4	2.16 V	162	39.6	22.0
6	10640.00	50.1 AV	54.0	-3.9	2.16 V	162	28.1	22.0
7	15960.00	63.2 PK	74.0	-10.8	2.44 V	179	39.4	23.8
8	15960.00	52.5 AV	54.0	-1.5	2.44 V	179	28.7	23.8

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.6 PK	74.0	-18.4	1.31 H	328	45.0	10.6
2	5460.00	45.6 AV	54.0	-8.4	1.31 H	328	35.0	10.6
3	#5470.00	63.8 PK	68.2	-4.4	1.31 H	328	53.2	10.6
4	*5500.00	116.9 PK			1.31 H	328	76.7	40.2
5	*5500.00	106.0 AV			1.31 H	328	65.8	40.2
6	11000.00	61.2 PK	74.0	-12.8	2.00 H	61	38.4	22.8
7	11000.00	51.3 AV	54.0	-2.7	2.00 H	61	28.5	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.3 PK	74.0	-15.7	1.10 V	86	47.7	10.6
2	5460.00	47.2 AV	54.0	-6.8	1.10 V	86	36.6	10.6
3	**#5470.00**	**68.0 PK**	**68.2**	**-0.2**	**1.10 V**	**86**	**57.4**	**10.6**
4	*5500.00	117.4 PK			1.10 V	86	77.2	40.2
5	*5500.00	106.3 AV			1.10 V	86	66.1	40.2
6	11000.00	61.7 PK	74.0	-12.3	1.50 V	178	38.9	22.8
7	11000.00	51.8 AV	54.0	-2.2	1.50 V	178	29.0	22.8

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	116.0 PK			1.28 H	348	75.8	40.2
2	*5580.00	105.9 AV			1.28 H	348	65.7	40.2
3	11160.00	61.4 PK	74.0	-12.6	1.92 H	19	38.6	22.8
4	11160.00	51.6 AV	54.0	-2.4	1.92 H	19	28.8	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.5 PK			1.09 V	87	76.3	40.2
2	*5580.00	106.1 AV			1.09 V	87	65.9	40.2
3	11160.00	61.6 PK	74.0	-12.4	1.53 V	184	38.8	22.8
4	11160.00	52.1 AV	54.0	-1.9	1.53 V	184	29.3	22.8

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	116.2 PK			1.33 H	347	75.7	40.5
2	*5700.00	106.3 AV			1.33 H	347	65.8	40.5
3	#5725.00	64.7 PK	68.2	-3.5	1.33 H	347	53.8	10.9
4	11400.00	62.3 PK	74.0	-11.7	2.76 H	108	38.7	23.6
5	11400.00	52.4 AV	54.0	-1.6	2.76 H	108	28.8	23.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	117.2 PK			1.08 V	84	76.7	40.5
2	*5700.00	106.6 AV			1.08 V	84	66.1	40.5
3	#5725.00	65.8 PK	68.2	-2.4	1.08 V	84	54.9	10.9
4	11400.00	62.9 PK	74.0	-11.1	1.52 V	166	39.3	23.6
5	11400.00	52.7 AV	54.0	-1.3	1.52 V	166	29.1	23.6

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	*5720.00	115.1 PK			1.23 H	347	74.5	40.6
2	*5720.00	106.0 AV			1.23 H	347	65.4	40.6
3	#5850.00	57.2 PK	68.2	-11.0	1.23 H	347	45.8	11.4
4	11440.00	61.7 PK	74.0	-12.3	2.73 H	109	38.2	23.5
5	11440.00	51.4 AV	54.0	-2.6	2.73 H	109	27.9	23.5
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	*5720.00	118.1 PK			1.77 V	81	77.5	40.6
2	*5720.00	107.4 AV			1.77 V	81	66.8	40.6
3	#5850.00	57.6 PK	68.2	-10.6	1.77 V	81	46.2	11.4
4	11440.00	61.9 PK	74.0	-12.1	1.49 V	175	38.4	23.5
5	11440.00	52.2 AV	54.0	-1.8	1.49 V	175	28.7	23.5

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 54：5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	5100.00	56.3 PK	74.0	-17.7	1.43 H	348	45.6	10.7
2	5100.00	46.7 AV	54.0	-7.3	1.43 H	348	36.0	10.7
3	*5270.00	110.6 PK			1.43 H	348	71.0	39.6
4	*5270.00	101.7 AV			1.43 H	348	62.1	39.6
5	#10540.00	60.0 PK	68.2	-8.2	1.64 H	217	38.9	21.1
6	15810.00	62.6 PK	74.0	-11.4	1.52 H	279	39.4	23.2
7	15810.00	51.6 AV	54.0	-2.4	1.52 H	279	28.4	23.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.2 PK	74.0	-16.8	1.10 V	62	46.6	10.6
2	5150.00	46.8 AV	54.0	-7.2	1.10 V	62	36.2	10.6
3	*5270.00	113.0 PK			1.10 V	62	73.4	39.6
4	*5270.00	101.9 AV			1.10 V	62	62.3	39.6
5	#10540.00	60.8 PK	68.2	-7.4	2.31 V	169	39.7	21.1
6	15810.00	63.9 PK	74.0	-10.1	2.25 V	190	40.7	23.2
7	15810.00	51.4 AV	54.0	-2.6	2.25 V	190	28.2	23.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 62：5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	111.2 PK			1.47 H	343	71.6	39.6
2	*5310.00	100.9 AV			1.47 H	343	61.3	39.6
3	5350.00	62.5 PK	74.0	-11.5	1.47 H	343	52.3	10.2
4	5350.00	53.6 AV	54.0	-0.4	1.47 H	343	43.4	10.2
5	10620.00	60.3 PK	74.0	-13.7	1.84 H	331	38.3	22.0
6	10620.00	50.1 AV	54.0	-3.9	1.84 H	331	28.1	22.0
7	15930.00	63.1 PK	74.0	-10.9	1.56 H	233	39.1	24.0
8	15930.00	52.6 AV	54.0	-1.4	1.56 H	233	28.6	24.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	111.5 PK			1.87 V	9	71.9	39.6
2	*5310.00	101.1 AV			1.87 V	9	61.5	39.6
3	5350.00	63.8 PK	74.0	-10.2	1.87 V	9	53.6	10.2
4	5350.00	53.7 AV	54.0	-0.3	1.87 V	9	43.5	10.2
5	10620.00	60.6 PK	74.0	-13.4	2.16 V	168	38.6	22.0
6	10620.00	50.0 AV	54.0	-4.0	2.16 V	168	28.0	22.0
7	15930.00	64.7 PK	74.0	-9.3	2.26 V	198	40.7	24.0
8	15930.00	52.1 AV	54.0	-1.9	2.26 V	198	28.1	24.0

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 102：5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.4 PK	74.0	-14.6	1.17 H	332	48.8	10.6
2	5460.00	46.9 AV	54.0	-7.1	1.17 H	332	36.3	10.6
3	#5470.00	62.9 PK	68.2	-5.3	1.17 H	332	52.3	10.6
4	*5510.00	112.4 PK			1.17 H	332	72.2	40.2
5	*5510.00	72.4 AV			1.17 H	332	32.2	40.2
6	11020.00	61.3 PK	74.0	-12.7	2.03 H	112	38.5	22.8
7	11020.00	51.0 AV	54.0	-3.0	2.03 H	112	28.2	22.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	59.6 PK	74.0	-14.4	1.07 V	85	49.0	10.6
2	5460.00	47.2 AV	54.0	-6.8	1.07 V	85	36.6	10.6
3	**#5470.00**	**68.0 PK**	**68.2**	**-0.2**	**1.07 V**	**85**	**57.4**	**10.6**
4	*5510.00	113.7 PK			1.07 V	85	73.5	40.2
5	*5510.00	102.8 AV			1.07 V	85	62.6	40.2
6	11020.00	61.4 PK	74.0	-12.6	1.46 V	174	38.6	22.8
7	11020.00	51.1 AV	54.0	-2.9	1.46 V	174	28.3	22.8

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 110：5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	111.9 PK			1.19 H	326	71.7	40.2
2	*5550.00	103.5 AV			1.19 H	326	63.3	40.2
3	11100.00	60.9 PK	74.0	-13.1	2.63 H	179	38.2	22.7
4	11100.00	50.5 AV	54.0	-3.5	2.63 H	179	27.8	22.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	112.3 PK			1.74 V	71	72.1	40.2
2	*5550.00	103.6 AV			1.74 V	71	63.4	40.2
3	11100.00	61.1 PK	74.0	-12.9	1.50 V	178	38.4	22.7
4	11100.00	50.6 AV	54.0	-3.4	1.50 V	178	27.9	22.7

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 134：5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	113.3 PK			1.36 H	345	73.0	40.3
2	*5670.00	104.1 AV			1.36 H	345	63.8	40.3
3	#5725.00	61.7 PK	68.2	-6.5	1.36 H	345	50.8	10.9
4	11340.00	61.6 PK	74.0	-12.4	1.79 H	88	38.5	23.1
5	11340.00	51.9 AV	54.0	-2.1	1.79 H	88	28.8	23.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	113.5 PK			1.57 V	67	73.2	40.3
2	*5670.00	104.3 AV			1.57 V	67	64.0	40.3
3	#5725.00	62.4 PK	68.2	-5.8	1.57 V	67	51.5	10.9
4	11340.00	61.7 PK	74.0	-12.3	1.55 V	173	38.6	23.1
5	11340.00	51.8 AV	54.0	-2.2	1.55 V	173	28.7	23.1

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 142：5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	*5710.00	113.1 PK			1.34 H	341	72.6	40.5
2	*5710.00	104.2 AV			1.34 H	341	63.7	40.5
3	#5850.00	57.5 PK	68.2	-10.7	1.34 H	341	46.1	11.4
4	11420.00	61.4 PK	74.0	-12.6	2.16 H	152	37.8	23.6
5	11420.00	51.6 AV	54.0	-2.4	2.16 H	152	28.0	23.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5710.00	113.5 PK			1.55 V	71	73.0	40.5
2	*5710.00	104.8 AV			1.55 V	71	64.3	40.5
3	#5850.00	57.9 PK	68.2	-10.3	1.55 V	71	46.5	11.4
4	11420.00	61.8 PK	74.0	-12.2	1.43 V	177	38.2	23.6
5	11420.00	52.0 AV	54.0	-2.0	1.43 V	177	28.4	23.6

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.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 58：5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.2 PK	74.0	-16.8	1.48 H	307	46.6	10.6
2	5150.00	46.9 AV	54.0	-7.1	1.48 H	307	36.3	10.6
3	*5290.00	108.3 PK			1.48 H	307	68.7	39.6
4	*5290.00	99.1 AV			1.48 H	307	59.5	39.6
5	5353.00	64.4 PK	74.0	-9.6	1.48 H	307	54.2	10.2
6	5353.00	53.6 AV	54.0	-0.4	1.48 H	307	43.4	10.2
7	#10580.00	60.4 PK	68.2	-7.8	1.51 H	273	38.7	21.7
8	15870.00	63.1 PK	74.0	-10.9	2.61 H	175	39.4	23.7
9	15870.00	52.6 AV	54.0	-1.4	2.61 H	175	28.9	23.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.1 PK	74.0	-10.9	1.08 V	60	52.5	10.6
2	5150.00	50.9 AV	54.0	-3.1	1.08 V	60	40.3	10.6
3	*5290.00	109.1 PK			1.08 V	60	69.5	39.6
4	*5290.00	99.2 AV			1.08 V	60	59.6	39.6
5	5350.00	64.8 PK	74.0	-9.2	1.08 V	60	54.6	10.2
6	5350.00	53.7 AV	54.0	-0.3	1.08 V	60	43.5	10.2
7	#10580.00	60.4 PK	68.2	-7.8	2.11 V	186	38.7	21.7
8	15870.00	64.4 PK	74.0	-9.6	1.96 V	170	40.7	23.7
9	15870.00	51.6 AV	54.0	-2.4	1.96 V	170	27.9	23.7

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 106：5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5457.00	65.1 PK	74.0	-8.9	1.53 H	351	54.6	10.5
2	5457.00	52.5 AV	54.0	-1.5	1.53 H	351	42.0	10.5
3	#5470.00	65.8 PK	68.2	-2.4	1.53 H	351	55.2	10.6
4	*5530.00	109.0 PK			1.53 H	351	68.9	40.1
5	*5530.00	100.2 AV			1.53 H	351	60.1	40.1
6	11060.00	60.3 PK	74.0	-13.7	1.20 H	286	37.6	22.7
7	11060.00	50.7 AV	54.0	-3.3	1.20 H	286	28.0	22.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.5 PK	74.0	-8.5	1.85 V	76	54.9	10.6
2	5460.00	53.1 AV	54.0	-0.9	1.85 V	76	42.5	10.6
3	**#5470.00**	**68.0 PK**	**68.2**	**-0.2**	**1.85 V**	**76**	**57.4**	**10.6**
4	*5530.00	110.3 PK			1.85 V	76	70.2	40.1
5	*5530.00	100.3 AV			1.85 V	76	60.2	40.1
6	11060.00	61.2 PK	74.0	-12.8	2.26 V	196	38.5	22.7
7	11060.00	50.8 AV	54.0	-3.2	2.26 V	196	28.1	22.7

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 122：5610 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.2 PK	74.0	-18.8	1.61 H	352	44.6	10.6
2	5460.00	46.1 AV	54.0	-7.9	1.61 H	352	35.5	10.6
3	#5470.00	59.6 PK	68.2	-8.6	1.61 H	352	49.0	10.6
4	*5610.00	108.4 PK			1.61 H	352	68.2	40.2
5	*5610.00	100.6 AV			1.61 H	352	60.4	40.2
6	#5725.00	59.9 PK	68.2	-8.3	1.61 H	352	49.0	10.9
7	11220.00	62.1 PK	74.0	-11.9	2.52 H	186	39.4	22.7
8	11220.00	50.9 AV	54.0	-3.1	2.52 H	186	28.2	22.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.9 PK	74.0	-17.1	1.51 V	67	46.3	10.6
2	5460.00	46.1 AV	54.0	-7.9	1.51 V	67	35.5	10.6
3	#5470.00	59.8 PK	68.2	-8.4	1.51 V	67	49.2	10.6
4	*5610.00	110.0 PK			1.51 V	67	69.8	40.2
5	*5610.00	100.8 AV			1.51 V	67	60.6	40.2
6	#5725.00	62.3 PK	68.2	-5.9	1.51 V	67	51.4	10.9
7	11220.00	62.5 PK	74.0	-11.5	2.36 V	198	39.8	22.7
8	11220.00	50.6 AV	54.0	-3.4	2.36 V	198	27.9	22.7

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 138：5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	55.2 PK	74.0	-18.8	1.47 H	353	44.6	10.6
2	5460.00	45.4 AV	54.0	-8.6	1.47 H	353	34.8	10.6
3	#5470.00	56.5 PK	68.2	-11.7	1.47 H	353	45.9	10.6
4	*5690.00	108.9 PK			1.47 H	353	68.5	40.4
5	*5690.00	101.1 AV			1.47 H	353	60.7	40.4
6	#5850.00	58.2 PK	68.2	-10.0	1.47 H	353	46.8	11.4
7	11380.00	62.0 PK	74.0	-12.0	1.92 H	48	38.6	23.4
8	11380.00	51.4 AV	54.0	-2.6	1.92 H	48	28.0	23.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.0 PK	74.0	-17.0	1.42 V	72	46.4	10.6
2	5460.00	45.6 AV	54.0	-8.4	1.42 V	72	35.0	10.6
3	#5470.00	58.2 PK	68.2	-10.0	1.42 V	72	47.6	10.6
4	*5690.00	110.7 PK			1.42 V	72	70.3	40.4
5	*5690.00	101.2 AV			1.42 V	72	60.8	40.4
6	#5850.00	59.7 PK	68.2	-8.5	1.42 V	72	48.3	11.4
7	11380.00	62.2 PK	74.0	-11.8	2.16 V	179	38.8	23.4
8	11380.00	51.2 AV	54.0	-2.8	2.16 V	179	27.8	23.4

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.
6. " # ": The radiated frequency is out of the restricted band.

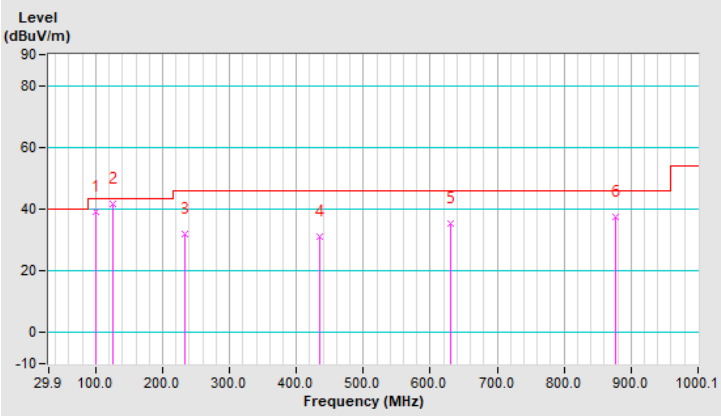
Below 1GHz Worst-Case Data:

RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	A		

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	99.75	39.3 QP	43.5	-4.2	1.99 H	183	52.7	-13.4
2	124.98	41.5 QP	43.5	-2.0	1.00 H	291	52.2	-10.7
3	232.67	32.0 QP	46.0	-14.0	1.00 H	291	43.0	-11.0
4	435.44	31.1 QP	46.0	-14.9	1.50 H	236	36.1	-5.0
5	629.48	35.4 QP	46.0	-10.6	1.00 H	116	35.8	-0.4
6	875.91	37.4 QP	46.0	-8.6	1.50 H	152	31.9	5.5

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

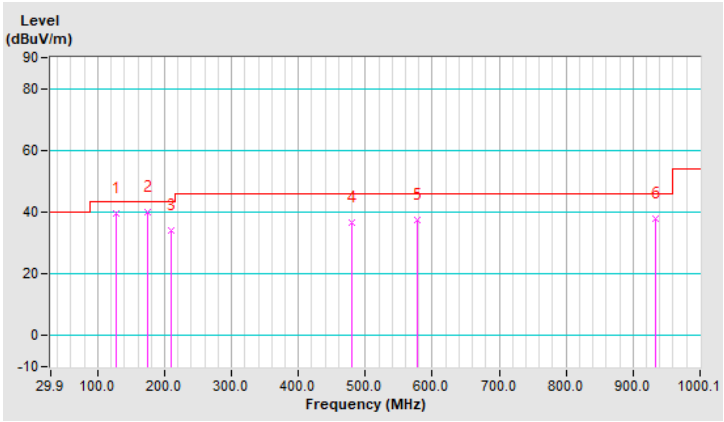


RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	A		

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	127.89	39.7 QP	43.5	-3.8	1.01 V	333	50.1	-10.4
2	174.46	40.1 QP	43.5	-3.4	1.50 V	297	49.7	-9.6
3	209.39	34.1 QP	43.5	-9.4	2.00 V	318	45.8	-11.7
4	480.07	36.7 QP	46.0	-9.3	1.01 V	4	41.0	-4.3
5	578.06	37.6 QP	46.0	-8.4	1.01 V	232	39.6	-2.0
6	933.16	37.7 QP	46.0	-8.3	2.00 V	186	30.8	6.9

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

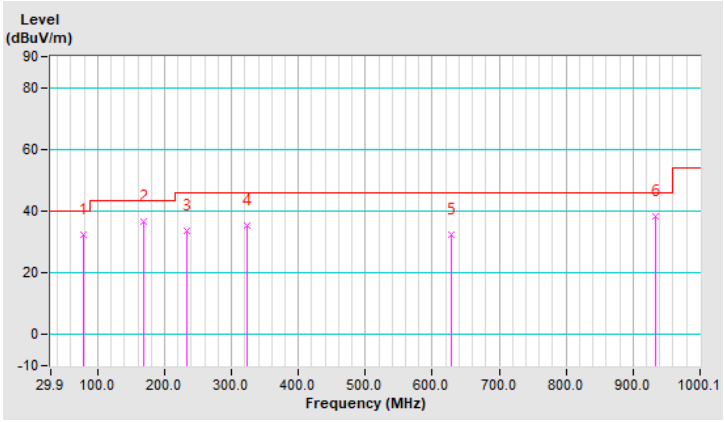


RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	B		

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	79.11	32.4 QP	40.0	-7.6	1.00 H	281	45.4	-13.0
2	169.10	36.5 QP	43.5	-7.0	1.00 H	340	45.6	-9.1
3	232.38	33.6 QP	46.0	-12.4	2.00 H	198	44.6	-11.0
4	322.37	35.3 QP	46.0	-10.7	1.50 H	187	42.4	-7.1
5	628.89	32.2 QP	46.0	-13.8	1.50 H	137	32.6	-0.4
6	934.01	38.2 QP	46.0	-7.8	1.00 H	179	31.3	6.9

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

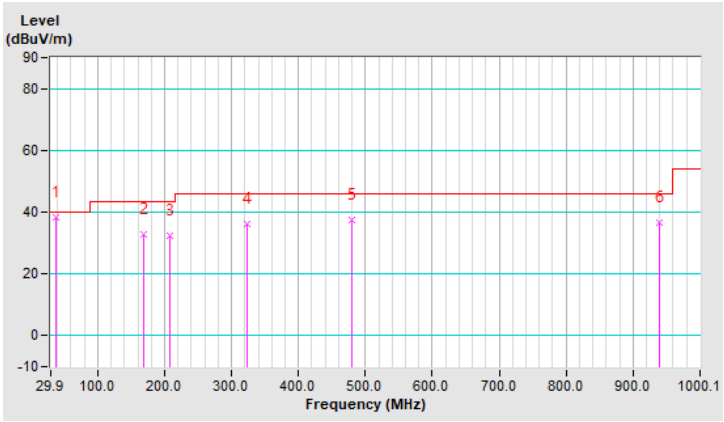


RF Mode	TX 802.11ax (HE20)	Channel	CH 140：5700 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	B		

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	38.34	38.5 QP	40.0	-1.5	1.49 V	73	48.2	-9.7
2	169.10	32.7 QP	43.5	-10.8	1.00 V	88	41.8	-9.1
3	208.47	32.4 QP	43.5	-11.1	1.00 V	0	44.1	-11.7
4	322.37	36.0 QP	46.0	-10.0	1.49 V	6	43.1	-7.1
5	479.85	37.6 QP	46.0	-8.4	1.00 V	316	41.9	-4.3
6	939.64	36.5 QP	46.0	-9.5	1.49 V	129	29.7	6.8

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 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 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 04, 2020	Dec. 03, 2021
RF signal cable Woken	5D-FB	Cable-cond1-01	Jan. 16, 2021	Jan. 15, 2022
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 25, 2021	Feb. 24, 2022
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 28, 2020	Aug. 27, 2021
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 1 (Conduction 1).
3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

a. The EUT was 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/ 50uH of coupling impedance for the measuring instrument.

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

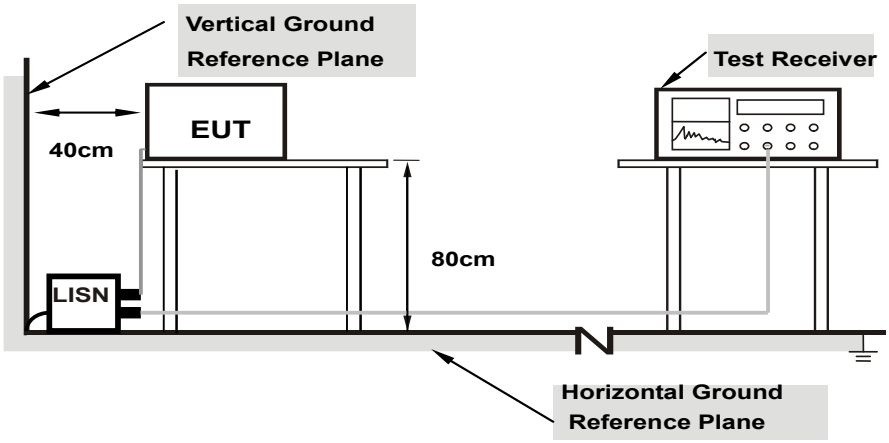
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 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).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data:

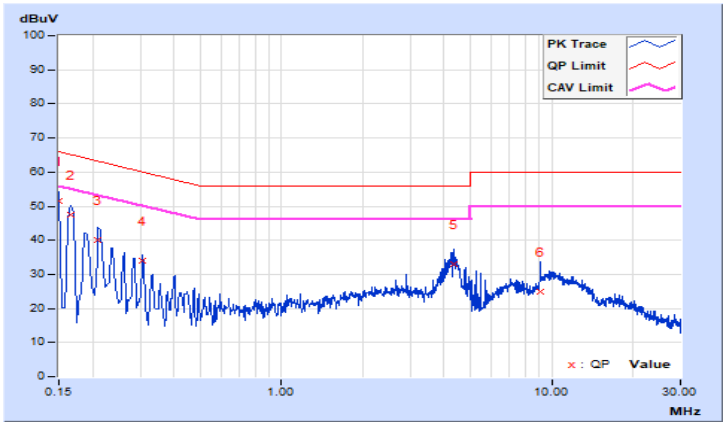
802.11ax (HE20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.67	41.69	23.54	51.36	33.21	66.00	56.00	-14.64	-22.79
2	0.16579	9.67	37.94	19.20	47.61	28.87	65.17	55.17	-17.56	-26.30
3	0.21000	9.67	30.52	16.66	40.19	26.33	63.21	53.21	-23.02	-26.88
4	0.30600	9.68	24.45	14.41	34.13	24.09	60.08	50.08	-25.95	-25.99
5	4.35000	9.75	23.38	10.29	33.13	20.04	56.00	46.00	-22.87	-25.96
6	9.10200	9.80	15.10	8.42	24.90	18.22	60.00	50.00	-35.10	-31.78

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.

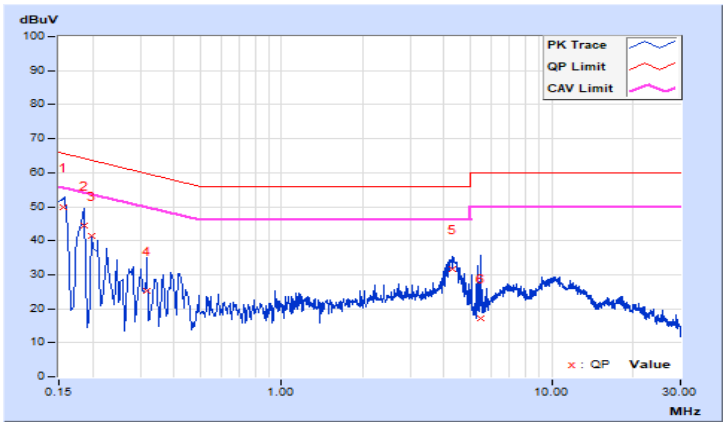


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15604	9.74	40.10	22.27	49.84	32.01	65.67	55.67	-15.83	-23.66
2	0.18600	9.74	34.76	16.83	44.50	26.57	64.21	54.21	-19.71	-27.64
3	0.19800	9.74	31.54	12.44	41.28	22.18	63.69	53.69	-22.41	-31.51
4	0.31800	9.75	15.64	0.59	25.39	10.34	59.76	49.76	-34.37	-39.42
5	4.27400	9.82	21.70	9.13	31.52	18.95	56.00	46.00	-24.48	-27.05
6	5.43800	9.84	7.24	1.13	17.08	10.97	60.00	50.00	-42.92	-39.03

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.

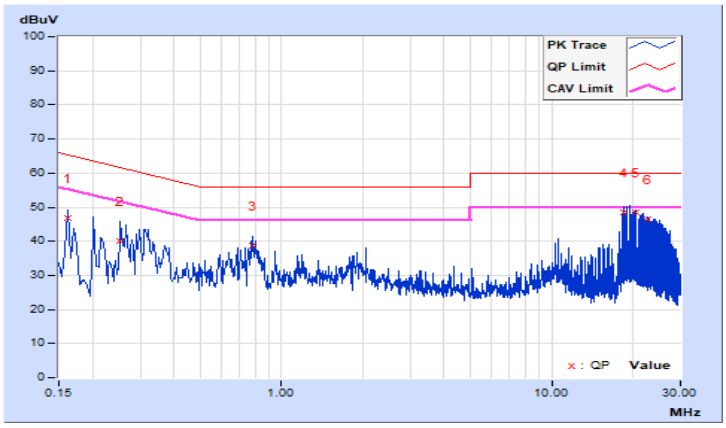


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	9.67	36.99	24.10	46.66	33.77	65.36	55.36	-18.70	-21.59
2	0.25400	9.68	30.52	16.97	40.20	26.65	61.63	51.63	-21.43	-24.98
3	0.78600	9.71	28.95	17.82	38.66	27.53	56.00	46.00	-17.34	-18.47
4	18.48600	9.76	38.86	36.13	48.62	45.89	60.00	50.00	-11.38	-4.11
5	20.61000	9.76	38.75	36.33	48.51	46.09	60.00	50.00	-11.49	-3.91
6	22.73000	9.74	36.72	36.61	46.46	46.35	60.00	50.00	-13.54	-3.65

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.

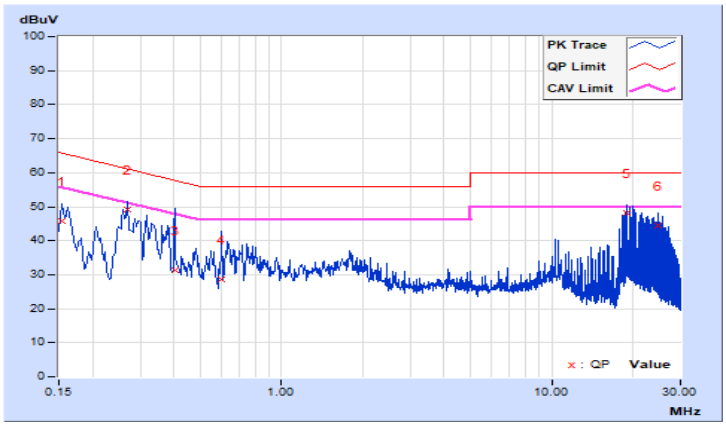


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	9.74	35.99	19.45	45.73	29.19	65.78	55.78	-20.05	-26.59
2	0.26992	9.75	39.53	30.14	49.28	39.89	61.12	51.12	-11.84	-11.23
3	0.40200	9.76	21.71	12.60	31.47	22.36	57.81	47.81	-26.34	-25.45
4	0.60200	9.77	18.87	7.87	28.64	17.64	56.00	46.00	-27.36	-28.36
5	**19.09400**	**9.93**	**38.13**	**36.66**	**48.06**	**46.59**	**60.00**	**50.00**	**-11.94**	**-3.41**
6	24.85400	9.92	34.67	33.10	44.59	43.02	60.00	50.00	-15.41	-6.98

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.



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

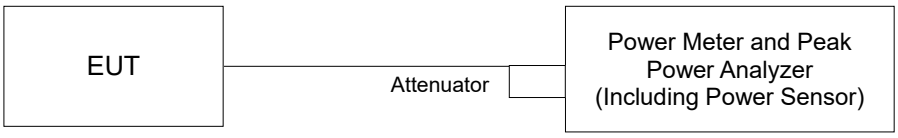
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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

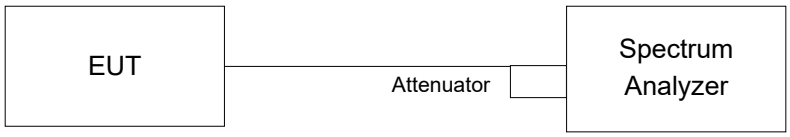
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

For Power Output



For 26dB Bandwidth and power output of transmission above 5.725 GHz where the EBW crosses 5.725 GHz



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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

For transmission above 5.725 GHz where the EBW crosses 5.725 GHz
For channel aggregation (channel 138, 142, 144) measurement refer to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II E 2 b) method SA-1.

For 26dB Bandwidth

a. Set RBW = approximately 1% of the emission bandwidth.

b. Set the VBW > RBW.

c. Detector = Peak.

d. Trace mode = max hold.

e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

Power Output:

CDD Mode

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.31	17.68	17.17	17.80	224.816	23.52	23.88	Pass
60	5300	17.41	17.62	17.41	18.19	233.889	23.69	23.86	Pass
64	5320	17.87	17.11	17.62	18.00	233.545	23.68	23.87	Pass
100	5500	17.61	17.32	17.69	17.78	230.356	23.62	23.87	Pass
116	5580	16.63	18.16	17.70	17.68	228.987	23.60	23.85	Pass
140	5700	17.53	18.07	17.57	17.78	237.872	23.76	23.86	Pass
144	5720 (For U-NII-2C)	15.82	16.73	16.61	16.60	176.815	22.48	22.71	Pass
144	5720 (For U-NII-3)	9.50	9.92	9.82	9.33	36.894	15.67	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (19.52) = 23.90 < 24dBm
2. 11dBm + 10log (19.45) = 23.88 < 24dBm
3. 11dBm + 10log (19.63) = 23.92 < 24dBm
4. 11dBm + 10log (19.55) = 23.91 < 24dBm
5. 11dBm + 10log (19.28) = 23.85 < 24dBm
6. 11dBm + 10log (19.36) = 23.86 < 24dBm
7. 11dBm + 10log (5725.00 - 5710.15) = 22.71 < 24dBm

Chain 1

1. 11dBm + 10log (19.46) = 23.89 < 24dBm
2. 11dBm + 10log (19.34) = 23.86 < 24dBm
3. 11dBm + 10log (19.46) = 23.89 < 24dBm
4. 11dBm + 10log (19.40) = 23.87 < 24dBm
5. 11dBm + 10log (19.32) = 23.86 < 24dBm
6. 11dBm + 10log (19.37) = 23.87 < 24dBm
7. 11dBm + 10log (5725.00 - 5710.07) = 22.74 < 24dBm

Chain 2

1. 11dBm + 10log (19.45) = 23.88 < 24dBm
2. 11dBm + 10log (19.53) = 23.90 < 24dBm
3. 11dBm + 10log (19.37) = 23.87 < 24dBm
4. 11dBm + 10log (19.40) = 23.87 < 24dBm
5. 11dBm + 10log (19.78) = 23.96 < 24dBm
6. 11dBm + 10log (19.52) = 23.90 < 24dBm
7. 11dBm + 10log (5725.00 - 5710.05) = 22.74 < 24dBm

Chain 3

1. 11dBm + 10log (19.41) = 23.88 < 24dBm
2. 11dBm + 10log (19.47) = 23.89 < 24dBm
3. 11dBm + 10log (19.58) = 23.91 < 24dBm
4. 11dBm + 10log (19.56) = 23.91 < 24dBm
5. 11dBm + 10log (19.33) = 23.86 < 24dBm
6. 11dBm + 10log (19.35) = 23.86 < 24dBm
7. 11dBm + 10log (5725.00 - 5710.11) = 22.72 < 24dBm

802.11ac (VHT20)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.29	17.97	17.16	17.91	230.042	23.62	24.00	Pass
60	5300	17.46	17.67	17.50	17.85	231.385	23.64	24.00	Pass
64	5320	17.69	16.90	17.53	17.76	224.054	23.50	24.00	Pass
100	5500	17.62	17.27	17.57	17.80	228.547	23.59	24.00	Pass
116	5580	16.70	17.86	17.72	17.56	224.04	23.50	24.00	Pass
140	5700	17.44	18.01	17.87	17.47	235.786	23.73	24.00	Pass
144	5720 (For U-NII-2C)	16.16	16.12	16.35	16.27	167.747	22.25	22.89	Pass
144	5720 (For U-NII-3)	9.90	9.32	9.24	9.48	35.589	15.51	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (21.55) = 24.33 > 24dBm
2. 11dBm + 10log (21.09) = 24.24 > 24dBm
3. 11dBm + 10log (21.47) = 24.31 > 24dBm
4. 11dBm + 10log (21.35) = 24.29 > 24dBm
5. 11dBm + 10log (21.19) = 24.26 > 24dBm
6. 11dBm + 10log (21.08) = 24.23 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.53) = 22.89 < 24dBm

Chain 1

1. 11dBm + 10log (21.29) = 24.28 > 24dBm
2. 11dBm + 10log (21.16) = 24.25 > 24dBm
3. 11dBm + 10log (21.05) = 24.23 > 24dBm
4. 11dBm + 10log (21.18) = 24.25 > 24dBm
5. 11dBm + 10log (21.26) = 24.27 > 24dBm
6. 11dBm + 10log (21.02) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.45) = 22.91 < 24dBm

Chain 2

1. 11dBm + 10log (20.99) = 24.22 > 24dBm
2. 11dBm + 10log (21.14) = 24.25 > 24dBm
3. 11dBm + 10log (21.06) = 24.23 > 24dBm
4. 11dBm + 10log (21.25) = 24.27 > 24dBm
5. 11dBm + 10log (21.06) = 24.23 > 24dBm
6. 11dBm + 10log (21.29) = 24.28 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.26) = 22.97 < 24dBm

Chain 3

1. 11dBm + 10log (21.08) = 24.23 > 24dBm
2. 11dBm + 10log (21.00) = 24.22 > 24dBm
3. 11dBm + 10log (21.43) = 24.31 > 24dBm
4. 11dBm + 10log (21.10) = 24.24 > 24dBm
5. 11dBm + 10log (21.21) = 24.26 > 24dBm
6. 11dBm + 10log (21.00) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.34) = 22.94 < 24dBm

802.11ac (VHT40)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.67	17.74	17.29	17.87	232.723	23.67	24.00	Pass
62	5310	17.49	16.95	17.73	17.91	226.744	23.56	24.00	Pass
102	5510	17.54	17.14	17.57	17.73	224.956	23.52	24.00	Pass
110	5550	16.84	17.65	17.57	17.87	224.899	23.52	24.00	Pass
134	5670	17.00	17.86	17.71	17.46	225.952	23.54	24.00	Pass
142	5710 (For U-NII-2C)	16.25	16.99	16.51	16.01	176.847	22.48	24.00	Pass
142	5710 (For U-NII-3)	5.25	5.90	5.76	5.01	14.177	11.52	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (42.17) = 27.25 > 24dBm
2. 11dBm + 10log (42.42) = 27.27 > 24dBm
3. 11dBm + 10log (41.92) = 27.22 > 24dBm
4. 11dBm + 10log (41.86) = 27.21 > 24dBm
5. 11dBm + 10log (42.00) = 27.23 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.05) = 26.55 > 24dBm

Chain 1

1. 11dBm + 10log (41.94) = 27.22 > 24dBm
2. 11dBm + 10log (42.29) = 27.26 > 24dBm
3. 11dBm + 10log (42.28) = 27.26 > 24dBm
4. 11dBm + 10log (41.88) = 27.22 > 24dBm
5. 11dBm + 10log (41.84) = 27.21 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.08) = 26.55 > 24dBm

Chain 2

1. 11dBm + 10log (42.12) = 27.24 > 24dBm
2. 11dBm + 10log (42.09) = 27.24 > 24dBm
3. 11dBm + 10log (42.20) = 27.25 > 24dBm
4. 11dBm + 10log (41.89) = 27.22 > 24dBm
5. 11dBm + 10log (41.89) = 27.22 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.16) = 26.54 > 24dBm

Chain 3

1. 11dBm + 10log (42.35) = 27.26 > 24dBm
2. 11dBm + 10log (42.23) = 27.25 > 24dBm
3. 11dBm + 10log (42.31) = 27.26 > 24dBm
4. 11dBm + 10log (41.84) = 27.21 > 24dBm
5. 11dBm + 10log (42.10) = 27.24 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.00) = 26.56 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.56	17.19	17.21	17.92	223.922	23.50	24.00	Pass
106	5530	16.99	17.75	17.64	17.85	228.600	23.59	24.00	Pass
122	5610	16.86	18.05	17.32	17.34	220.506	23.43	24.00	Pass
138	5690 (For U-NII-2C)	16.07	16.25	16.08	15.99	162.897	22.12	24.00	Pass
138	5690 (For U-NII-3)	2.35	2.58	1.86	1.87	6.602	8.20	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (82.69) = 30.17 > 24dBm
2. 11dBm + 10log (82.79) = 30.17 > 24dBm
3. 11dBm + 10log (82.04) = 30.14 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.52) = 29.84 > 24dBm

Chain 1

1. 11dBm + 10log (82.62) = 30.17 > 24dBm
2. 11dBm + 10log (82.88) = 30.18 > 24dBm
3. 11dBm + 10log (82.28) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.66) = 29.83 > 24dBm

Chain 2

1. 11dBm + 10log (82.52) = 30.16 > 24dBm
2. 11dBm + 10log (82.92) = 30.18 > 24dBm
3. 11dBm + 10log (82.63) = 30.17 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.78) = 29.82 > 24dBm

Chain 3

1. 11dBm + 10log (82.40) = 30.15 > 24dBm
2. 11dBm + 10log (82.14) = 30.14 > 24dBm
3. 11dBm + 10log (82.35) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.70) = 29.83 > 24dBm

802.11ax (HE20)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.37	18.00	17.24	17.97	233.299	23.68	24.00	Pass
60	5300	17.49	17.73	17.58	17.87	233.912	23.69	24.00	Pass
64	5320	17.78	17.00	17.60	17.82	228.176	23.58	24.00	Pass
100	5500	17.71	17.30	17.68	17.91	233.139	23.68	24.00	Pass
116	5580	16.82	17.97	17.80	17.63	228.944	23.60	24.00	Pass
140	5700	17.48	18.07	17.90	17.58	**239.036**	23.78	24.00	Pass
144	5720 (For U-NII-2C)	16.19	16.21	16.44	16.28	169.892	22.30	22.89	Pass
144	5720 (For U-NII-3)	9.93	9.41	9.33	9.49	36.032	15.57	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (21.55) = 24.33 > 24dBm
2. 11dBm + 10log (21.09) = 24.24 > 24dBm
3. 11dBm + 10log (21.47) = 24.31 > 24dBm
4. 11dBm + 10log (21.35) = 24.29 > 24dBm
5. 11dBm + 10log (21.19) = 24.26 > 24dBm
6. 11dBm + 10log (21.08) = 24.23 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.53) = 22.89 < 24dBm

Chain 1

1. 11dBm + 10log (21.29) = 24.28 > 24dBm
2. 11dBm + 10log (21.16) = 24.25 > 24dBm
3. 11dBm + 10log (21.05) = 24.23 > 24dBm
4. 11dBm + 10log (21.18) = 24.25 > 24dBm
5. 11dBm + 10log (21.26) = 24.27 > 24dBm
6. 11dBm + 10log (21.02) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.45) = 22.91 < 24dBm

Chain 2

1. 11dBm + 10log (20.99) = 24.22 > 24dBm
2. 11dBm + 10log (21.14) = 24.25 > 24dBm
3. 11dBm + 10log (21.06) = 24.23 > 24dBm
4. 11dBm + 10log (21.25) = 24.27 > 24dBm
5. 11dBm + 10log (21.06) = 24.23 > 24dBm
6. 11dBm + 10log (21.29) = 24.28 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.26) = 22.97 < 24dBm

Chain 3

1. 11dBm + 10log (21.08) = 24.23 > 24dBm
2. 11dBm + 10log (21.00) = 24.22 > 24dBm
3. 11dBm + 10log (21.43) = 24.31 > 24dBm
4. 11dBm + 10log (21.10) = 24.24 > 24dBm
5. 11dBm + 10log (21.21) = 24.26 > 24dBm
6. 11dBm + 10log (21.00) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.34) = 22.94 < 24dBm

802.11ax (HE40)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.71	17.77	17.31	17.88	**234.064**	23.69	24.00	Pass
62	5310	17.52	17.05	17.77	18.02	230.421	23.63	24.00	Pass
102	5510	17.61	17.26	17.63	17.76	228.534	23.59	24.00	Pass
110	5550	16.92	17.76	17.61	17.88	227.960	23.58	24.00	Pass
134	5670	17.11	17.95	17.79	17.57	231.043	23.64	24.00	Pass
142	5710 (For U-NII-2C)	16.32	17.02	16.55	16.13	179.411	22.54	24.00	Pass
142	5710 (For U-NII-3)	5.32	5.93	5.80	5.13	14.382	11.58	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (42.17) = 27.25 > 24dBm
2. 11dBm + 10log (42.42) = 27.27 > 24dBm
3. 11dBm + 10log (41.92) = 27.22 > 24dBm
4. 11dBm + 10log (41.86) = 27.21 > 24dBm
5. 11dBm + 10log (42.00) = 27.23 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.05) = 26.55 > 24dBm

Chain 1

1. 11dBm + 10log (41.94) = 27.22 > 24dBm
2. 11dBm + 10log (42.29) = 27.26 > 24dBm
3. 11dBm + 10log (42.28) = 27.26 > 24dBm
4. 11dBm + 10log (41.88) = 27.22 > 24dBm
5. 11dBm + 10log (41.84) = 27.21 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.08) = 26.55 > 24dBm

Chain 2

1. 11dBm + 10log (42.12) = 27.24 > 24dBm
2. 11dBm + 10log (42.09) = 27.24 > 24dBm
3. 11dBm + 10log (42.20) = 27.25 > 24dBm
4. 11dBm + 10log (41.89) = 27.22 > 24dBm
5. 11dBm + 10log (41.89) = 27.22 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.16) = 26.54 > 24dBm

Chain 3

1. 11dBm + 10log (42.35) = 27.26 > 24dBm
2. 11dBm + 10log (42.23) = 27.25 > 24dBm
3. 11dBm + 10log (42.31) = 27.26 > 24dBm
4. 11dBm + 10log (41.84) = 27.21 > 24dBm
5. 11dBm + 10log (42.10) = 27.24 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.00) = 26.56 > 24dBm

802.11ax (HE80)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.66	17.16	17.32	17.97	226.957	23.56	24.00	Pass
106	5530	17.03	17.79	17.70	17.90	231.127	23.64	24.00	Pass
122	5610	16.93	18.12	17.38	17.45	224.473	23.51	24.00	Pass
138	5690 (For U-NII-2C)	16.11	16.36	16.14	16.01	165.101	22.18	24.00	Pass
138	5690 (For U-NII-3)	2.39	2.69	1.92	1.89	6.693	8.26	30.00	Pass

Note:

Chain 0

1. 11dBm + 10log (82.69) = 30.17 > 24dBm
2. 11dBm + 10log (82.79) = 30.17 > 24dBm
3. 11dBm + 10log (82.04) = 30.14 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.52) = 29.84 > 24dBm

Chain 1

1. 11dBm + 10log (82.62) = 30.17 > 24dBm
2. 11dBm + 10log (82.88) = 30.18 > 24dBm
3. 11dBm + 10log (82.28) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.66) = 29.83 > 24dBm

Chain 2

1. 11dBm + 10log (82.52) = 30.16 > 24dBm
2. 11dBm + 10log (82.92) = 30.18 > 24dBm
3. 11dBm + 10log (82.63) = 30.17 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.78) = 29.82 > 24dBm

Chain 3

1. 11dBm + 10log (82.40) = 30.15 > 24dBm
2. 11dBm + 10log (82.14) = 30.14 > 24dBm
3. 11dBm + 10log (82.35) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.70) = 29.83 > 24dBm

Beamforming Mode

802.11ac (VHT20)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.29	17.97	17.16	17.91	230.042	23.62	23.85	Pass
60	5300	17.46	17.67	17.50	17.85	231.385	23.64	23.85	Pass
64	5320	17.69	16.90	17.53	17.76	224.054	23.50	23.85	Pass
100	5500	17.62	17.27	17.57	17.80	228.547	23.59	23.97	Pass
116	5580	16.70	17.86	17.72	17.56	224.040	23.50	23.97	Pass
140	5700	17.44	18.01	17.87	17.47	235.786	23.73	23.97	Pass
144	5720 (For U-NII-2C)	16.16	16.12	16.35	16.27	167.747	22.25	22.86	Pass
144	5720 (For U-NII-3)	9.90	9.32	9.24	9.48	35.589	15.51	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5700MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 22.89 - (6.03 - 6) = 22.86dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (21.55) = 24.33 > 24dBm
2. 11dBm + 10log (21.09) = 24.24 > 24dBm
3. 11dBm + 10log (21.47) = 24.31 > 24dBm
4. 11dBm + 10log (21.35) = 24.29 > 24dBm
5. 11dBm + 10log (21.19) = 24.26 > 24dBm
6. 11dBm + 10log (21.08) = 24.23 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.53) = 22.89 < 24dBm

Chain 1

1. 11dBm + 10log (21.29) = 24.28 > 24dBm
2. 11dBm + 10log (21.16) = 24.25 > 24dBm
3. 11dBm + 10log (21.05) = 24.23 > 24dBm
4. 11dBm + 10log (21.18) = 24.25 > 24dBm
5. 11dBm + 10log (21.26) = 24.27 > 24dBm
6. 11dBm + 10log (21.02) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.45) = 22.91 < 24dBm

Chain 2

1. 11dBm + 10log (20.99) = 24.22 > 24dBm
2. 11dBm + 10log (21.14) = 24.25 > 24dBm
3. 11dBm + 10log (21.06) = 24.23 > 24dBm
4. 11dBm + 10log (21.25) = 24.27 > 24dBm
5. 11dBm + 10log (21.06) = 24.23 > 24dBm
6. 11dBm + 10log (21.29) = 24.28 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.26) = 22.97 < 24dBm

Chain 3

1. 11dBm + 10log (21.08) = 24.23 > 24dBm
2. 11dBm + 10log (21.00) = 24.22 > 24dBm
3. 11dBm + 10log (21.43) = 24.31 > 24dBm
4. 11dBm + 10log (21.10) = 24.24 > 24dBm
5. 11dBm + 10log (21.21) = 24.26 > 24dBm
6. 11dBm + 10log (21.00) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.34) = 22.94 < 24dBm

802.11ac (VHT40)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.67	17.74	17.29	17.87	232.723	23.67	23.85	Pass
62	5310	17.49	16.95	17.73	17.91	226.744	23.56	23.85	Pass
102	5510	17.54	17.14	17.57	17.73	224.956	23.52	23.97	Pass
110	5550	16.84	17.65	17.57	17.87	224.899	23.52	23.97	Pass
134	5670	17.00	17.86	17.71	17.46	225.952	23.54	23.97	Pass
142	5710 (For U-NII-2C)	16.25	16.99	16.51	16.01	142.132	21.53	23.97	Pass
142	5710 (For U-NII-3)	5.25	5.90	5.76	5.01	30.312	14.82	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (42.17) = 27.25 > 24dBm
2. 11dBm + 10log (42.42) = 27.27 > 24dBm
3. 11dBm + 10log (41.92) = 27.22 > 24dBm
4. 11dBm + 10log (41.86) = 27.21 > 24dBm
5. 11dBm + 10log (42.00) = 27.23 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.05) = 26.55 > 24dBm

Chain 1

1. 11dBm + 10log (41.94) = 27.22 > 24dBm
2. 11dBm + 10log (42.29) = 27.26 > 24dBm
3. 11dBm + 10log (42.28) = 27.26 > 24dBm
4. 11dBm + 10log (41.88) = 27.22 > 24dBm
5. 11dBm + 10log (41.84) = 27.21 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.08) = 26.55 > 24dBm

Chain 2

1. 11dBm + 10log (42.12) = 27.24 > 24dBm
2. 11dBm + 10log (42.09) = 27.24 > 24dBm
3. 11dBm + 10log (42.20) = 27.25 > 24dBm
4. 11dBm + 10log (41.89) = 27.22 > 24dBm
5. 11dBm + 10log (41.89) = 27.22 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.16) = 26.54 > 24dBm

Chain 3

1. 11dBm + 10log (42.35) = 27.26 > 24dBm
2. 11dBm + 10log (42.23) = 27.25 > 24dBm
3. 11dBm + 10log (42.31) = 27.26 > 24dBm
4. 11dBm + 10log (41.84) = 27.21 > 24dBm
5. 11dBm + 10log (42.10) = 27.24 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.00) = 26.56 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.56	17.19	17.21	17.92	223.922	23.50	23.85	Pass
106	5530	16.99	17.75	17.64	17.85	228.600	23.59	23.97	Pass
122	5610	16.86	18.05	17.32	17.34	220.506	23.43	23.97	Pass
138	5690 (For U-NII-2C)	16.07	16.25	16.08	15.99	142.132	21.53	23.97	Pass
138	5690 (For U-NII-3)	2.35	2.58	1.86	1.87	30.312	14.82	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (82.69) = 30.17 > 24dBm
2. 11dBm + 10log (82.79) = 30.17 > 24dBm
3. 11dBm + 10log (82.04) = 30.14 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.52) = 29.84 > 24dBm

Chain 1

1. 11dBm + 10log (82.62) = 30.17 > 24dBm
2. 11dBm + 10log (82.88) = 30.18 > 24dBm
3. 11dBm + 10log (82.28) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.66) = 29.83 > 24dBm

Chain 2

1. 11dBm + 10log (82.52) = 30.16 > 24dBm
2. 11dBm + 10log (82.92) = 30.18 > 24dBm
3. 11dBm + 10log (82.63) = 30.17 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.78) = 29.82 > 24dBm

Chain 3

1. 11dBm + 10log (82.40) = 30.15 > 24dBm
2. 11dBm + 10log (82.14) = 30.14 > 24dBm
3. 11dBm + 10log (82.35) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.70) = 29.83 > 24dBm

802.11ax (HE20)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	17.37	18.00	17.24	17.97	233.299	23.68	23.85	Pass
60	5300	17.49	17.73	17.58	17.87	233.912	23.69	23.85	Pass
64	5320	17.78	17.00	17.60	17.82	228.176	23.58	23.85	Pass
100	5500	17.71	17.30	17.68	17.91	233.139	23.68	23.97	Pass
116	5580	16.82	17.97	17.80	17.63	228.944	23.60	23.97	Pass
140	5700	17.48	18.07	17.90	17.58	**239.036**	23.78	23.97	Pass
144	5720 (For U-NII-2C)	16.19	16.21	16.44	16.28	169.892	22.30	22.86	Pass
144	5720 (For U-NII-3)	9.93	9.41	9.33	9.49	36.032	15.57	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5700MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 22.89 - (6.03 - 6) = 22.86dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (21.55) = 24.33 > 24dBm
2. 11dBm + 10log (21.09) = 24.24 > 24dBm
3. 11dBm + 10log (21.47) = 24.31 > 24dBm
4. 11dBm + 10log (21.35) = 24.29 > 24dBm
5. 11dBm + 10log (21.19) = 24.26 > 24dBm
6. 11dBm + 10log (21.08) = 24.23 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.53) = 22.89 < 24dBm

Chain 1

1. 11dBm + 10log (21.29) = 24.28 > 24dBm
2. 11dBm + 10log (21.16) = 24.25 > 24dBm
3. 11dBm + 10log (21.05) = 24.23 > 24dBm
4. 11dBm + 10log (21.18) = 24.25 > 24dBm
5. 11dBm + 10log (21.26) = 24.27 > 24dBm
6. 11dBm + 10log (21.02) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.45) = 22.91 < 24dBm

Chain 2

1. 11dBm + 10log (20.99) = 24.22 > 24dBm
2. 11dBm + 10log (21.14) = 24.25 > 24dBm
3. 11dBm + 10log (21.06) = 24.23 > 24dBm
4. 11dBm + 10log (21.25) = 24.27 > 24dBm
5. 11dBm + 10log (21.06) = 24.23 > 24dBm
6. 11dBm + 10log (21.29) = 24.28 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.26) = 22.97 < 24dBm

Chain 3

1. 11dBm + 10log (21.08) = 24.23 > 24dBm
2. 11dBm + 10log (21.00) = 24.22 > 24dBm
3. 11dBm + 10log (21.43) = 24.31 > 24dBm
4. 11dBm + 10log (21.10) = 24.24 > 24dBm
5. 11dBm + 10log (21.21) = 24.26 > 24dBm
6. 11dBm + 10log (21.00) = 24.22 > 24dBm
7. 11dBm + 10log (5725.00 - 5709.34) = 22.94 < 24dBm

802.11ax (HE40)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.71	17.77	17.31	17.88	**234.064**	23.69	23.85	Pass
62	5310	17.52	17.05	17.77	18.02	230.421	23.63	23.85	Pass
102	5510	17.61	17.26	17.63	17.76	228.534	23.59	23.97	Pass
110	5550	16.92	17.76	17.61	17.88	227.960	23.58	23.97	Pass
134	5670	17.11	17.95	17.79	17.57	231.043	23.64	23.97	Pass
142	5710 (For U-NII-2C)	16.32	17.02	16.55	16.13	179.411	22.54	23.97	Pass
142	5710 (For U-NII-3)	5.32	5.93	5.80	5.13	14.382	11.58	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (42.17) = 27.25 > 24dBm
2. 11dBm + 10log (42.42) = 27.27 > 24dBm
3. 11dBm + 10log (41.92) = 27.22 > 24dBm
4. 11dBm + 10log (41.86) = 27.21 > 24dBm
5. 11dBm + 10log (42.00) = 27.23 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.05) = 26.55 > 24dBm

Chain 1

1. 11dBm + 10log (41.94) = 27.22 > 24dBm
2. 11dBm + 10log (42.29) = 27.26 > 24dBm
3. 11dBm + 10log (42.28) = 27.26 > 24dBm
4. 11dBm + 10log (41.88) = 27.22 > 24dBm
5. 11dBm + 10log (41.84) = 27.21 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.08) = 26.55 > 24dBm

Chain 2

1. 11dBm + 10log (42.12) = 27.24 > 24dBm
2. 11dBm + 10log (42.09) = 27.24 > 24dBm
3. 11dBm + 10log (42.20) = 27.25 > 24dBm
4. 11dBm + 10log (41.89) = 27.22 > 24dBm
5. 11dBm + 10log (41.89) = 27.22 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.16) = 26.54 > 24dBm

Chain 3

1. 11dBm + 10log (42.35) = 27.26 > 24dBm
2. 11dBm + 10log (42.23) = 27.25 > 24dBm
3. 11dBm + 10log (42.31) = 27.26 > 24dBm
4. 11dBm + 10log (41.84) = 27.21 > 24dBm
5. 11dBm + 10log (42.10) = 27.24 > 24dBm
6. 11dBm + 10log (5725.00 - 5689.00) = 26.56 > 24dBm

802.11ax (HE80)

Chan.	Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.66	17.16	17.32	17.97	226.957	23.56	23.85	Pass
106	5530	17.03	17.79	17.70	17.90	231.127	23.64	23.97	Pass
122	5610	16.93	18.12	17.38	17.45	224.473	23.51	23.97	Pass
138	5690 (For U-NII-2C)	16.11	16.36	16.14	16.01	165.101	22.18	23.97	Pass
138	5690 (For U-NII-3)	2.39	2.69	1.92	1.89	6.693	8.26	30.00	Pass

Note:

1. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power limit shall be reduced to 24 - (6.15 - 6) = 23.85dBi.
2. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power limit shall be reduced to 24 - (6.03 - 6) = 23.97dBi.
3. 5745-5825MHz: Directional gain = 5.86dBi < 6dBi, so the power limit not need to reduced.

Chain 0

1. 11dBm + 10log (82.69) = 30.17 > 24dBm
2. 11dBm + 10log (82.79) = 30.17 > 24dBm
3. 11dBm + 10log (82.04) = 30.14 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.52) = 29.84 > 24dBm

Chain 1

1. 11dBm + 10log (82.62) = 30.17 > 24dBm
2. 11dBm + 10log (82.88) = 30.18 > 24dBm
3. 11dBm + 10log (82.28) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.66) = 29.83 > 24dBm

Chain 2

1. 11dBm + 10log (82.52) = 30.16 > 24dBm
2. 11dBm + 10log (82.92) = 30.18 > 24dBm
3. 11dBm + 10log (82.63) = 30.17 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.78) = 29.82 > 24dBm

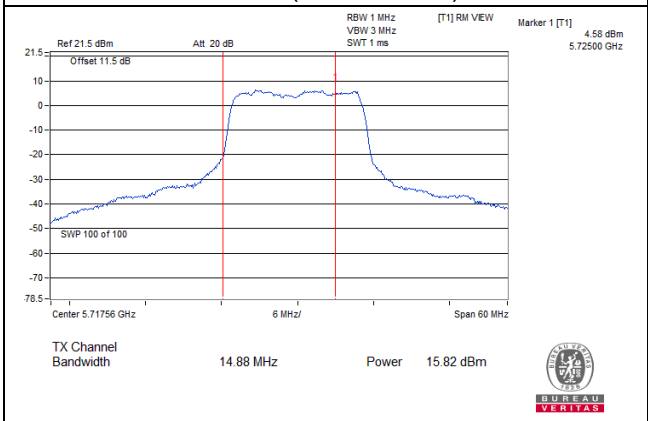
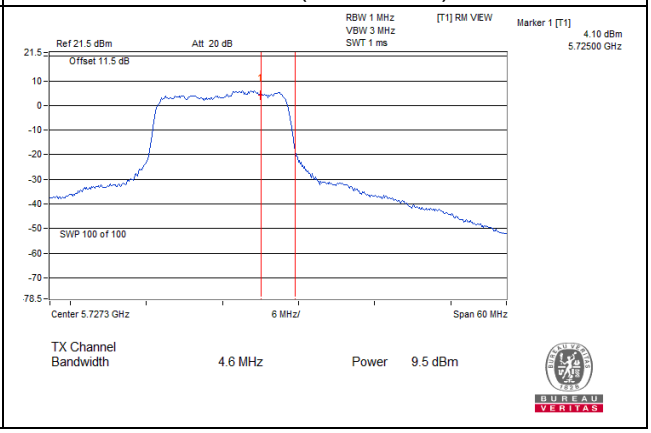
Chain 3

1. 11dBm + 10log (82.40) = 30.15 > 24dBm
2. 11dBm + 10log (82.14) = 30.14 > 24dBm
3. 11dBm + 10log (82.35) = 30.15 > 24dBm
4. 11dBm + 10log (5725.00 - 5648.70) = 29.83 > 24dBm

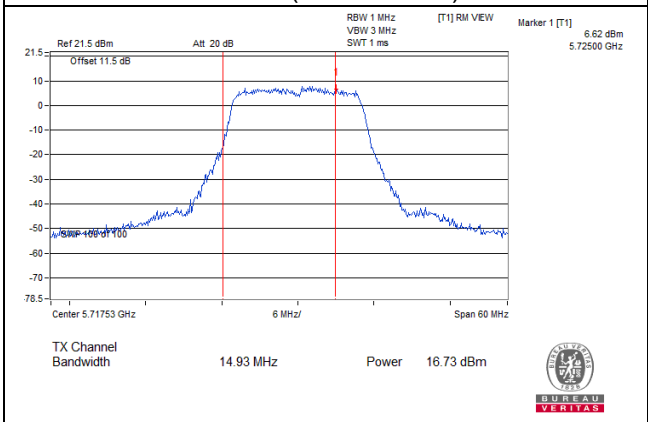
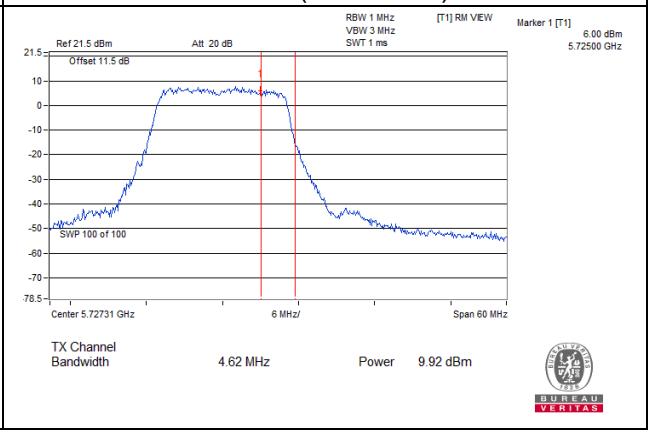
Straddle channel power plots:

802.11a

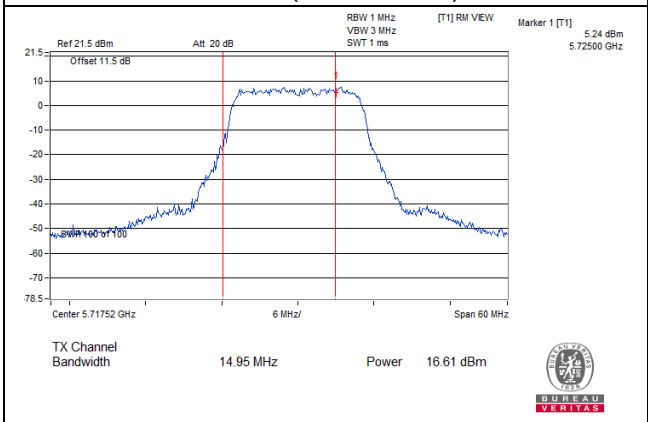
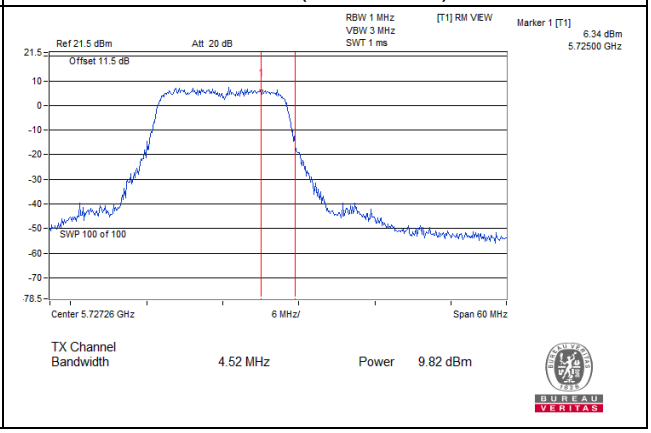
Chain 0

CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	
TX Channel Bandwidth 14.88 MHz Power 15.82 dBm	TX Channel Bandwidth 4.6 MHz Power 9.5 dBm

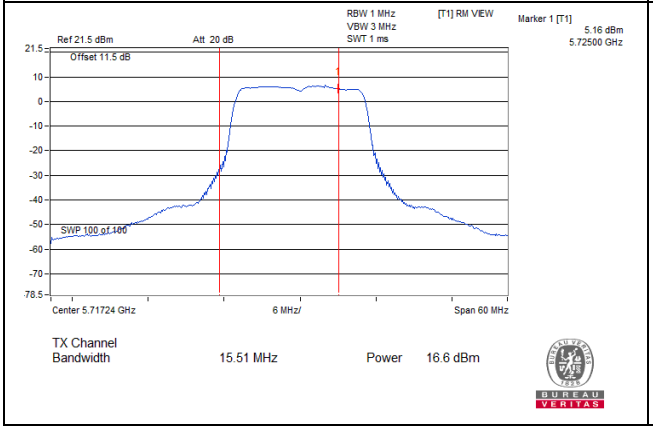
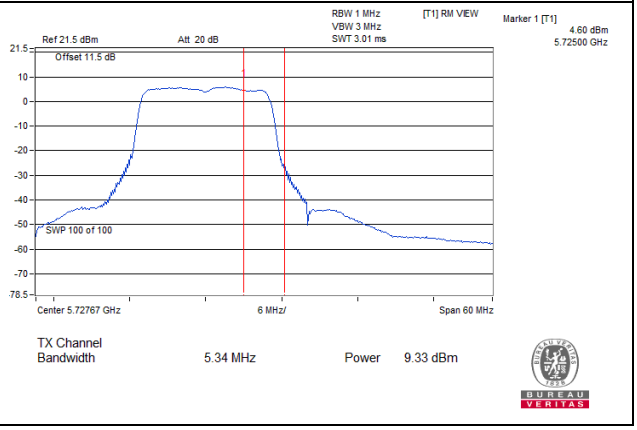
Chain 1

CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	
TX Channel Bandwidth 14.93 MHz Power 16.73 dBm	TX Channel Bandwidth 4.62 MHz Power 9.92 dBm

Chain 2

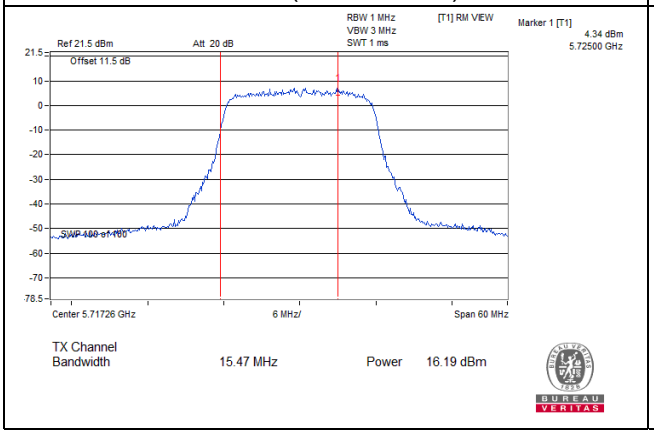
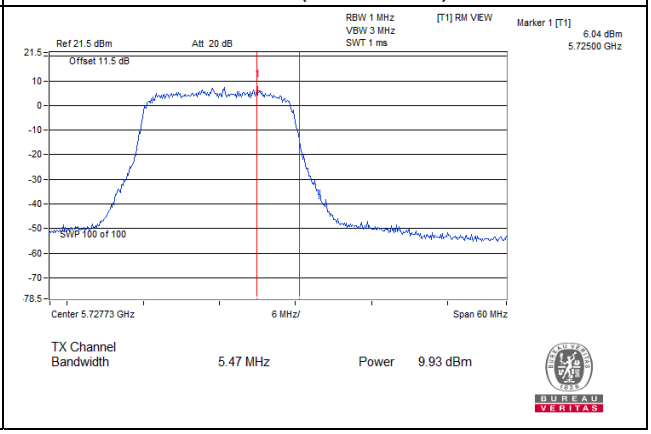
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	
TX Channel Bandwidth 14.95 MHz Power 16.61 dBm	TX Channel Bandwidth 4.52 MHz Power 9.82 dBm

Chain 3

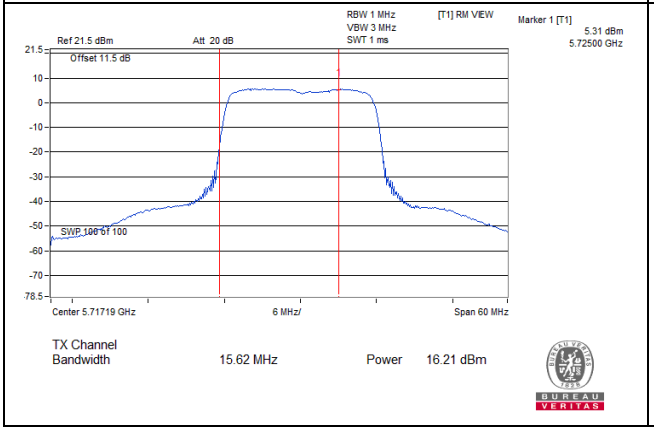
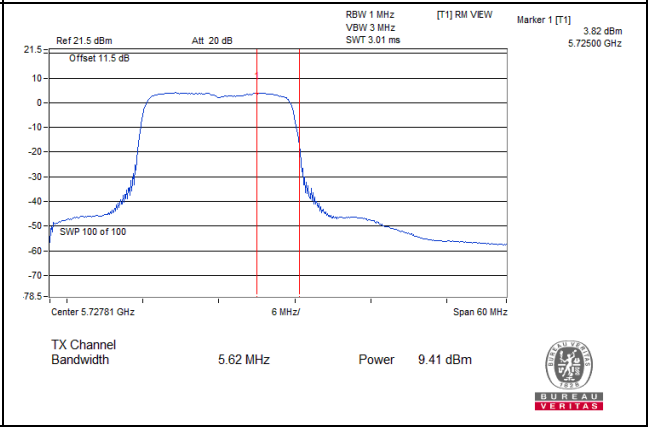
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

802.11ax (HE20)

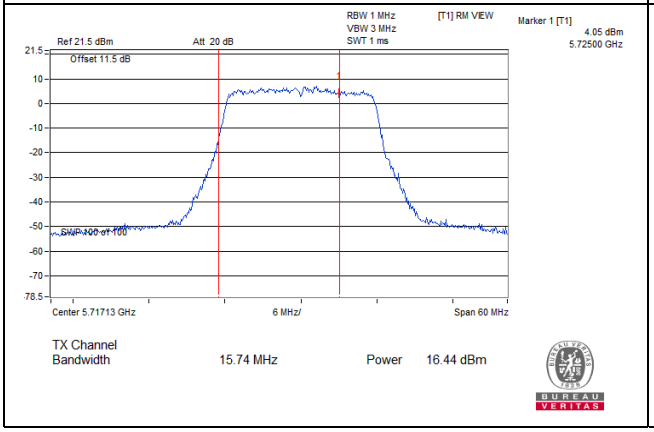
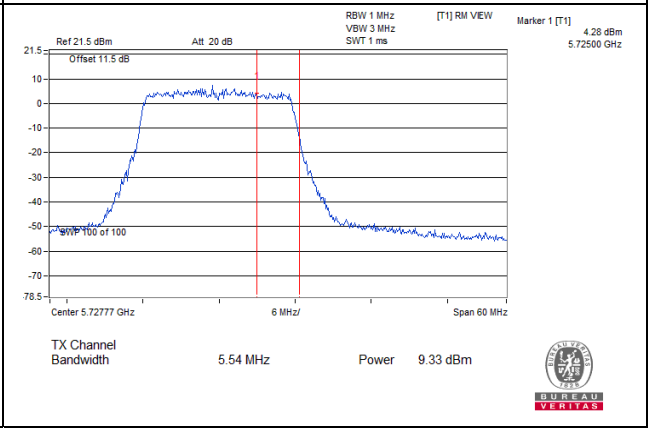
Chain 0

CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

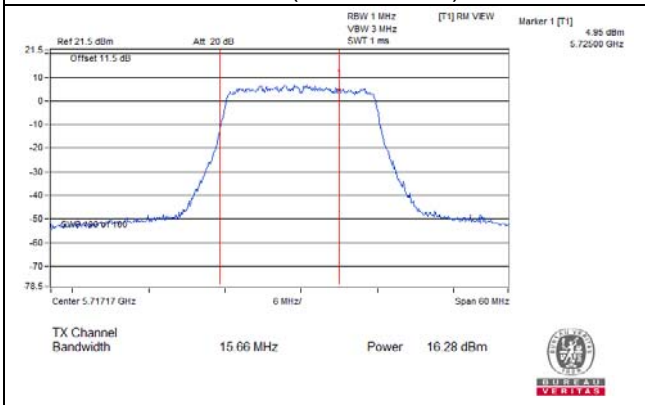
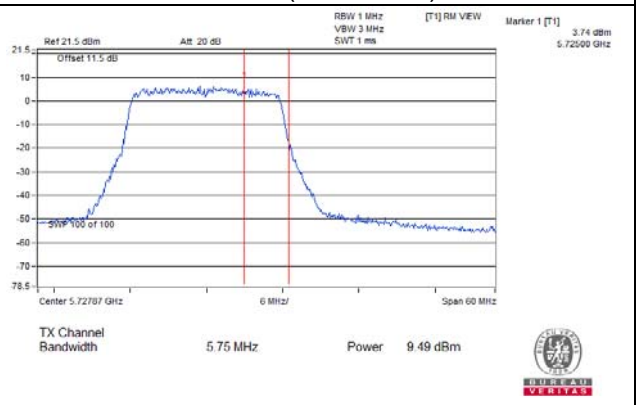
Chain 1

CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

Chain 2

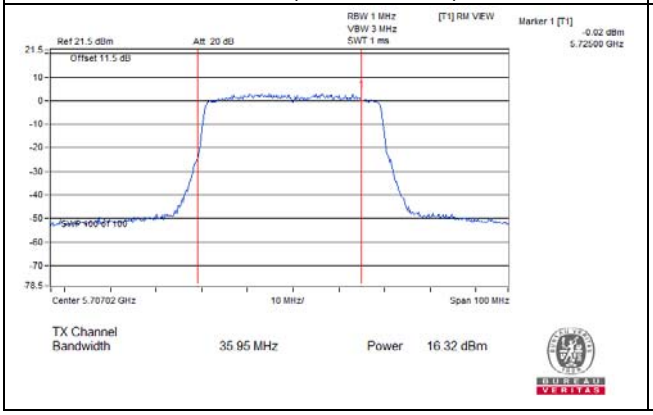
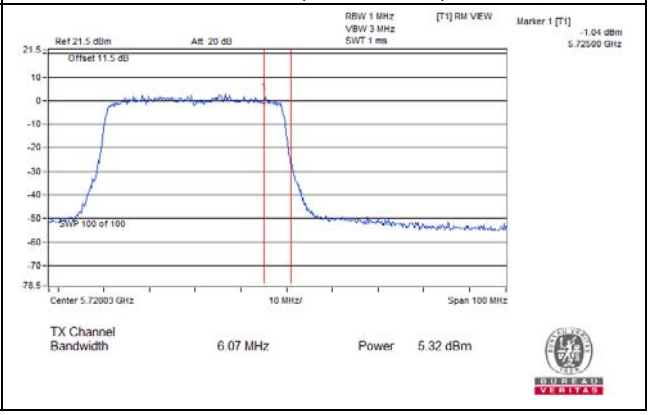
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

Chain 3

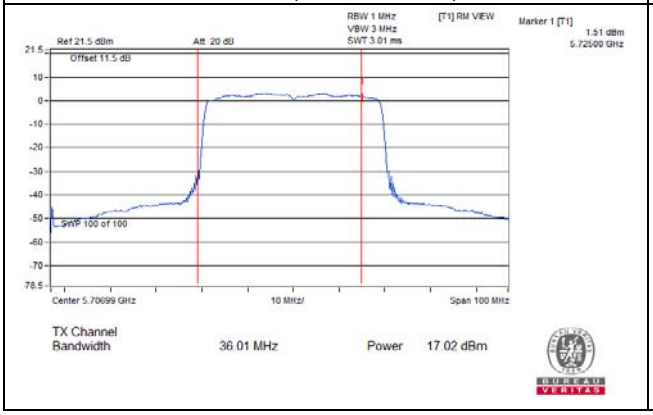
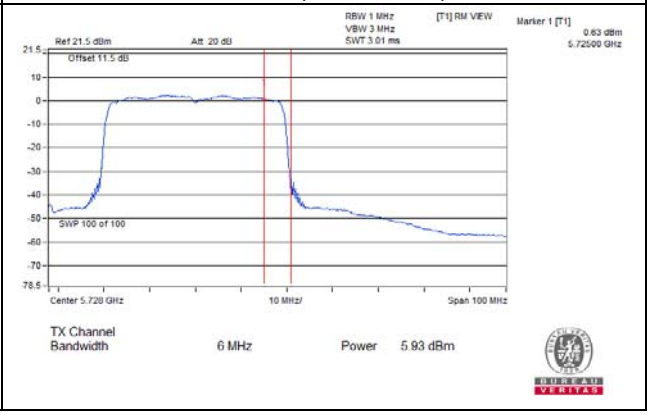
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

802.11ax (HE40)

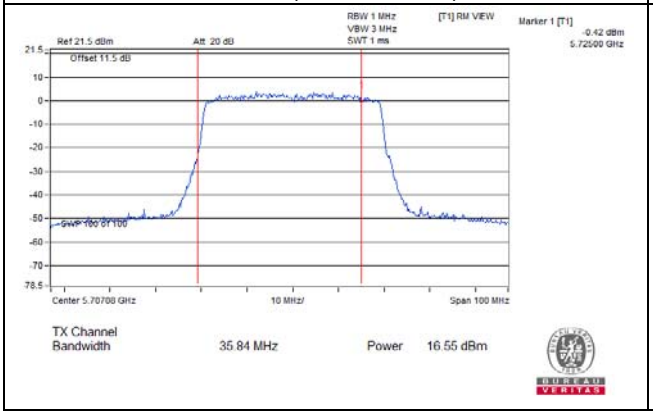
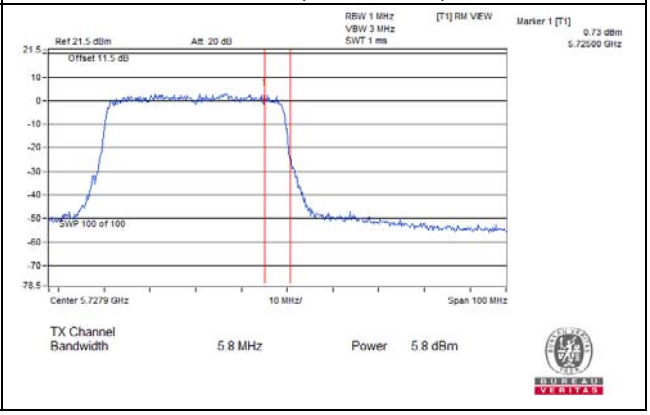
Chain 0

CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

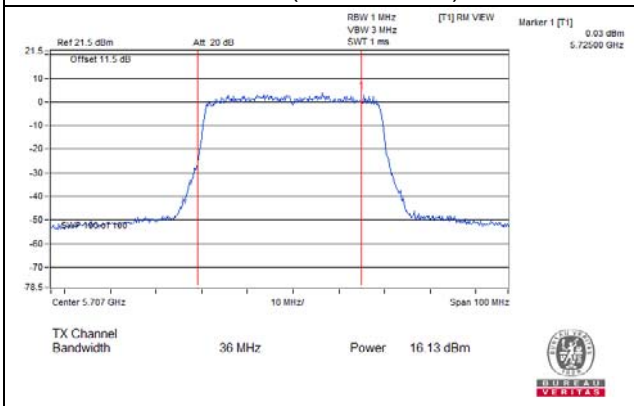
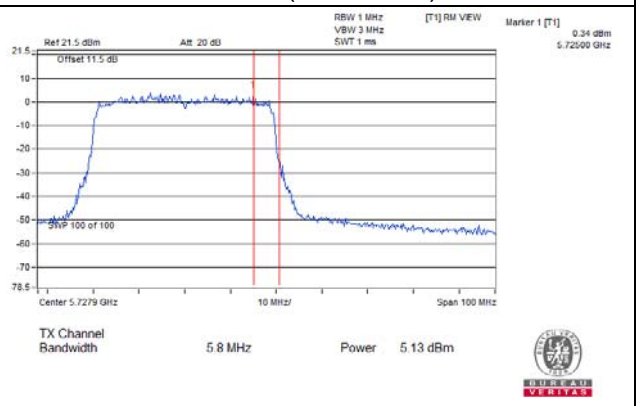
Chain 1

CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

Chain 2

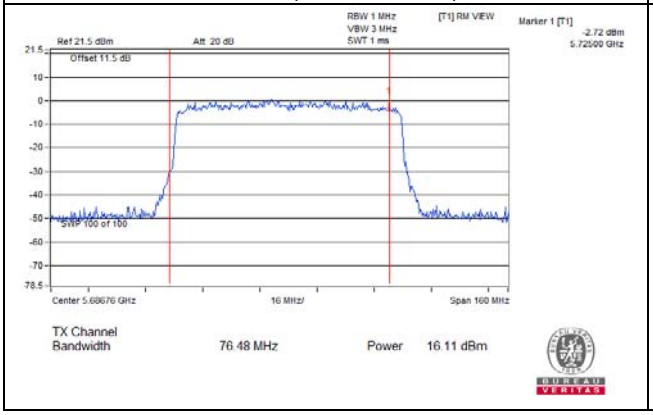
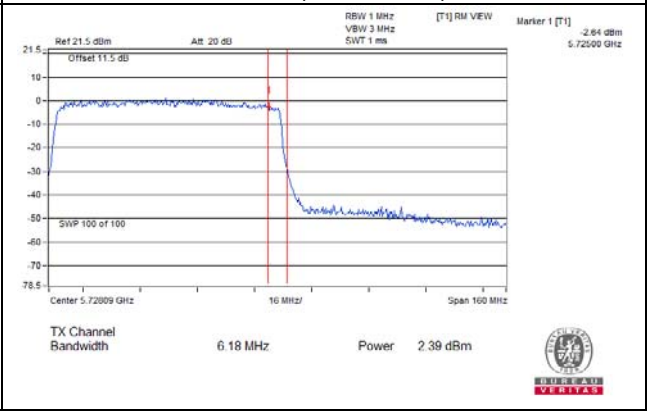
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

Chain 3

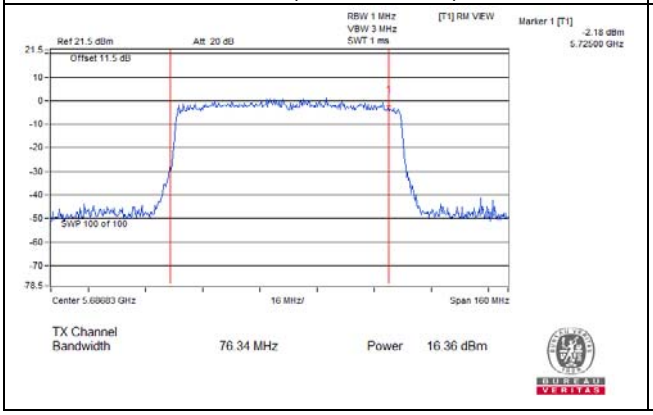
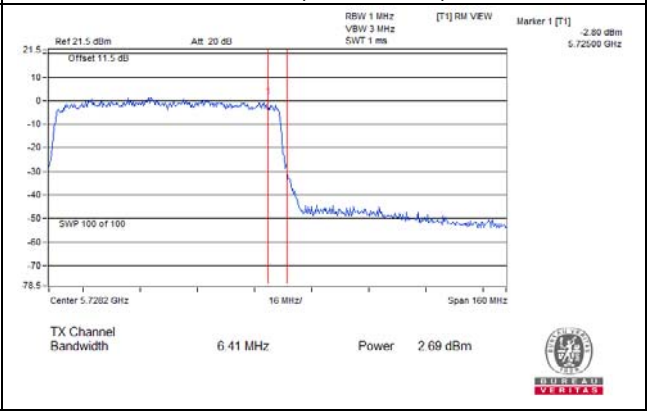
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

802.11ax (HE80)

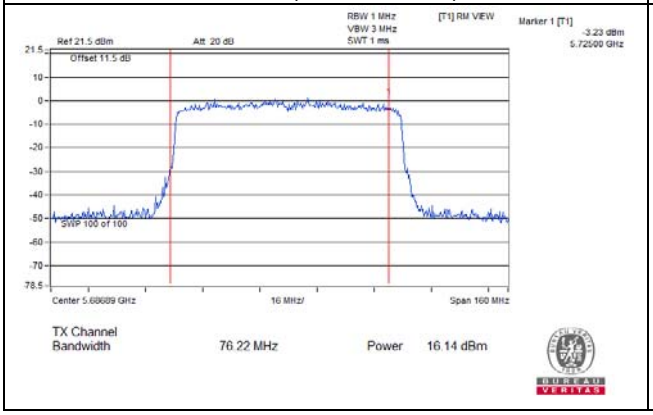
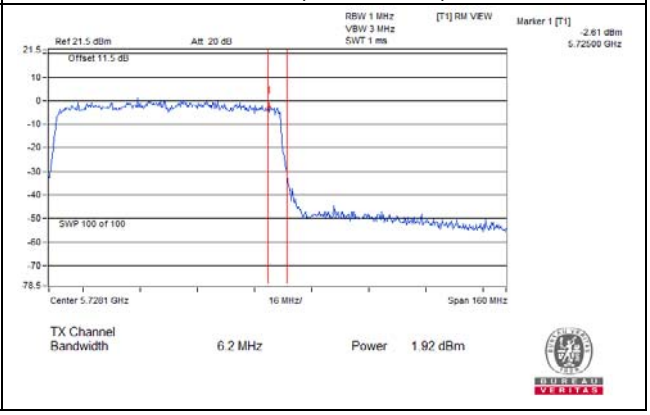
Chain 0

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

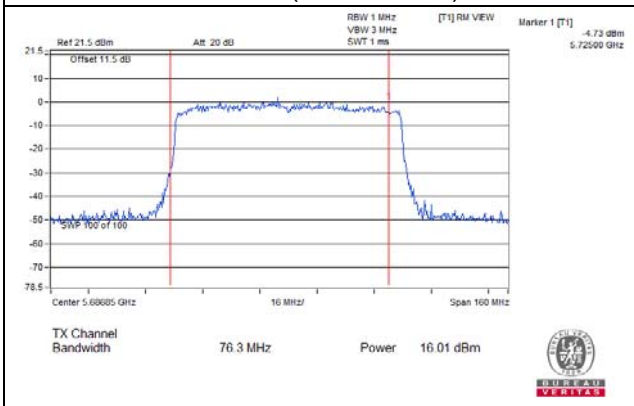
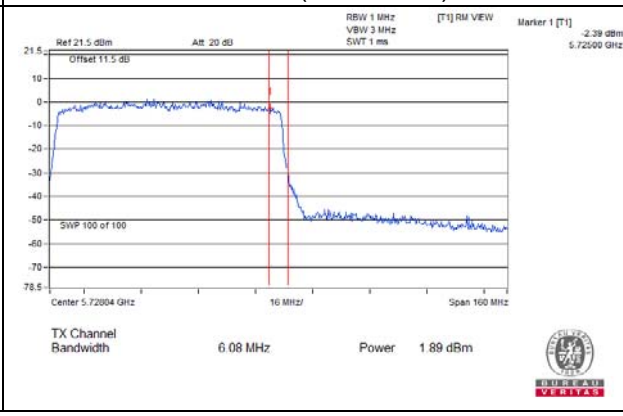
Chain 1

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

Chain 2

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

Chain 3

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	19.52	19.46	19.45	19.41
60	5300	19.45	19.34	19.53	19.47
64	5320	19.63	19.46	19.37	19.58
100	5500	19.55	19.40	19.40	19.56
116	5580	19.28	19.32	19.78	19.33
140	5700	19.36	19.37	19.52	19.35
144	5720 (For U-NII-2C)	14.85	14.93	14.95	14.89
144	5720 (For U-NII-3)	4.54	4.62	4.52	4.56

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

For CH144 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.55	21.29	20.99	21.08
60	5300	21.09	21.16	21.14	21.00
64	5320	21.47	21.05	21.06	21.43
100	5500	21.35	21.18	21.25	21.10
116	5580	21.19	21.26	21.06	21.21
140	5700	21.08	21.02	21.29	21.00
144	5720 (For U-NII-2C)	15.47	15.55	15.74	15.66
144	5720 (For U-NII-3)	5.47	5.40	5.54	5.75

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

For CH144 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	42.17	41.94	42.12	42.35
62	5310	42.42	42.29	42.09	42.23
102	5510	41.92	42.28	42.20	42.31
110	5550	41.86	41.88	41.89	41.84
134	5670	42.00	41.84	41.89	42.10
142	5710 (For U-NII-2C)	35.95	35.92	35.84	36.00
142	5710 (For U-NII-3)	6.07	5.95	5.80	5.80

For CH142 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

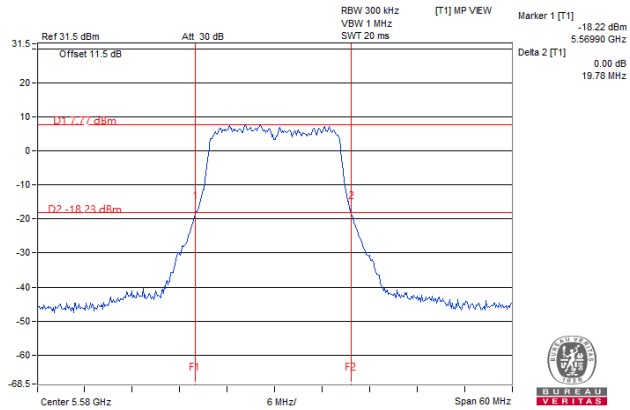
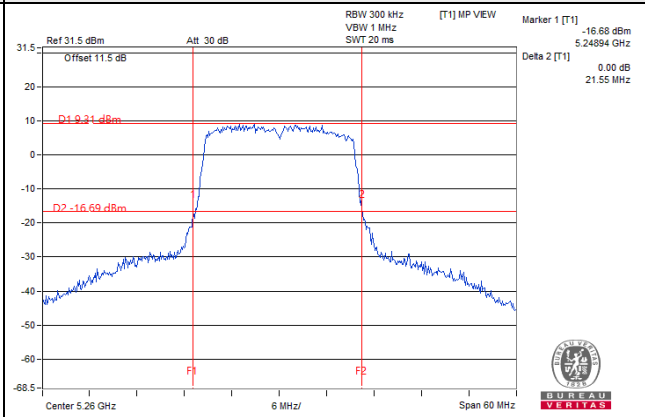
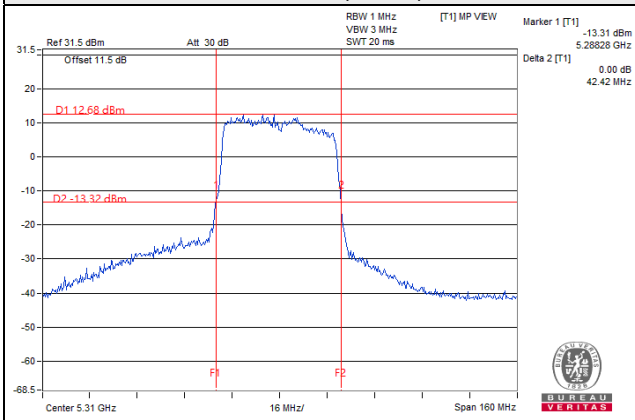
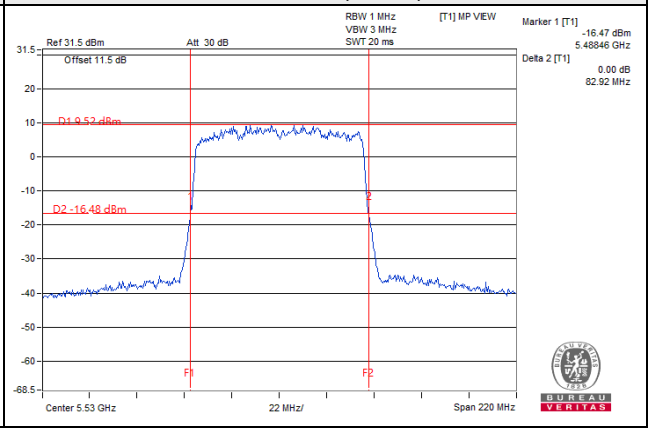
For CH142 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.69	82.62	82.52	82.40
106	5530	82.79	82.88	82.92	82.14
122	5610	82.04	82.28	82.63	82.35
138	5690 (For U-NII-2C)	76.48	76.34	76.22	76.30
138	5690 (For U-NII-3)	6.18	6.41	6.20	6.08

For CH138 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

For CH138 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value	
802.11a	802.11ax (HE20)
	
802.11ax (HE40)	802.11ax (HE80)
	

EUT Average Power

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	233.889
5470~5725	23.76	237.872

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	233.912
5470~5725	23.78	239.036

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	234.064
5470~5725	23.64	231.043

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.56	226.957
5470~5725	23.64	231.127

Beamforming Mode

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	233.912
5470~5725	23.78	239.036

802.11ax (HE40)

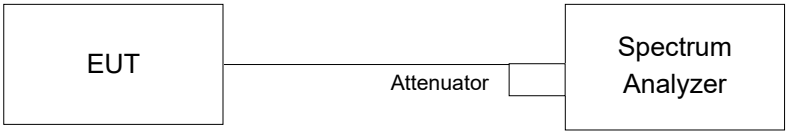
Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	234.064
5470~5725	23.64	231.043

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.56	226.957
5470~5725	23.64	231.127

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 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.

4.4.4 Test Result

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	16.44	16.32	16.32	16.44
60	5300	16.44	16.32	16.44	16.44
64	5320	16.56	16.44	16.32	16.44
100	5500	16.44	16.44	16.44	16.56
116	5580	16.44	16.44	16.44	16.32
140	5700	16.44	16.44	16.44	16.32
144	5720 (For U-NII-2C)	13.28	13.40	13.40	13.28
144	5720 (For U-NII-3)	3.16	3.16	3.16	3.16

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Marker 1

For CH144 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	18.96	18.96	18.96	18.96
60	5300	18.96	18.96	18.96	18.96
64	5320	19.08	18.96	18.96	18.96
100	5500	18.96	18.84	18.96	18.84
116	5580	18.96	18.84	18.84	18.96
140	5700	18.96	18.96	18.96	18.96
144	5720 (For U-NII-2C)	14.60	14.60	14.60	14.60
144	5720 (For U-NII-3)	4.36	4.36	4.48	4.36

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Marker 1

For CH144 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	38.04	37.92	37.92	37.92
62	5310	37.92	37.92	37.92	38.04
102	5510	38.04	38.16	38.16	38.16
110	5550	37.92	37.80	38.04	37.92
134	5670	38.04	37.92	37.92	37.92
142	5710 (For U-NII-2C)	34.08	33.96	34.08	34.20
142	5710 (For U-NII-3)	3.84	3.84	3.96	3.96

For CH142 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Marker 1

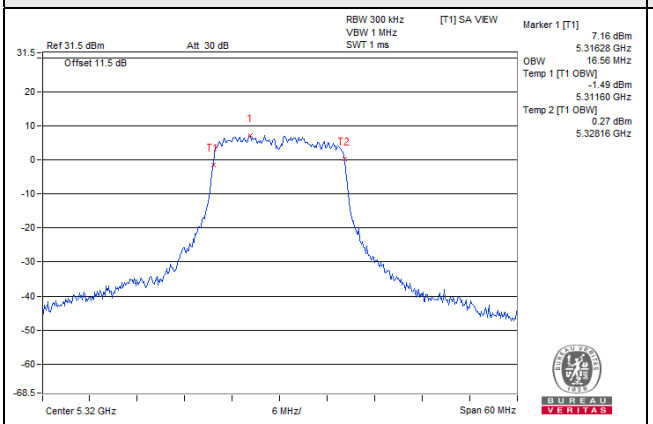
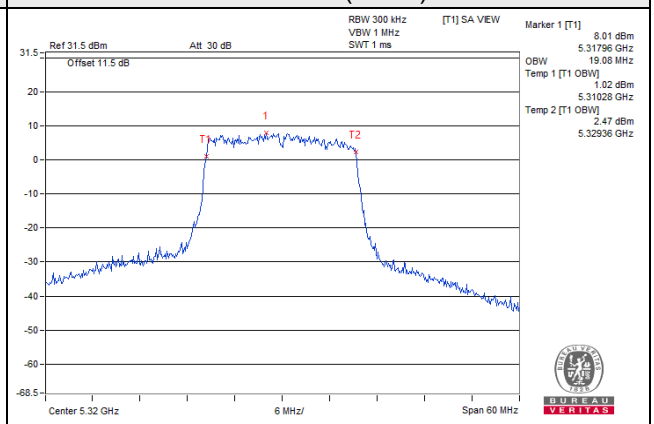
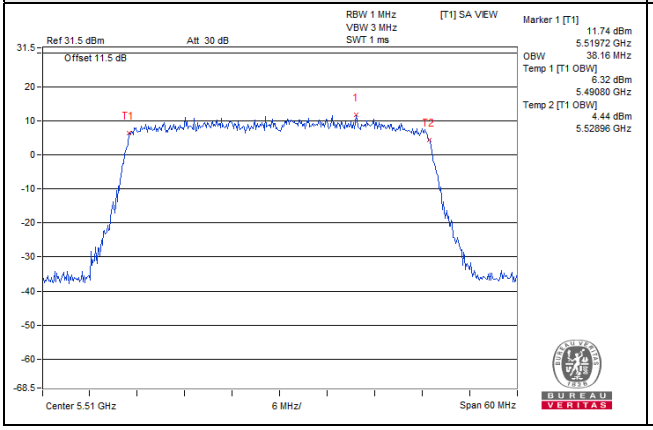
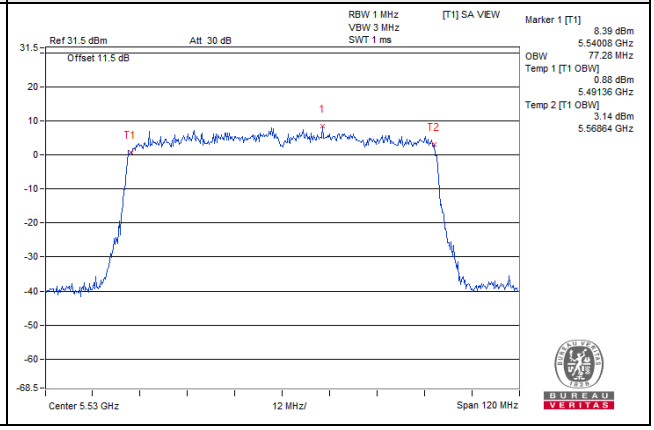
For CH142 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	77.04	77.04	77.04	77.04
106	5530	77.28	77.04	77.28	77.04
122	5610	77.04	77.04	77.04	77.04
138	5690 (For U-NII-2C)	73.88	73.64	73.88	73.88
138	5690 (For U-NII-3)	3.40	3.40	3.40	3.40

For CH138 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Marker 1

For CH138 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

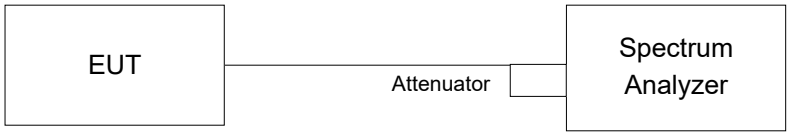
Spectrum Plot of Worst Value	
802.11a	802.11ax (HE20)
	
802.11ax (HE40)	802.11ax (HE80)
	

4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
		Mobile and Portable client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-2A and U-NII-2C band:

Duty cycle of test signal is < 98%

Using method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.

b. Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS

c. Set Channel power measure = 1MHz

d. Sweep time = auto, trigger set to “free run”.

e. Trace average at least 100 traces in power averaging mode.

f. Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:

Duty cycle of test signal is < 98%

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.

b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS

c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.

d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 kHz)

e. Sweep time = auto, trigger set to “free run”.

f. Trace average at least 100 traces in power averaging mode.

g. Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

For U-NII-2A and U-NII-2C band:

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	3.80	3.85	3.60	4.55	0.59	10.58	10.85	Pass
60	5300	3.28	3.72	2.81	3.77	0.59	10.03	10.85	Pass
64	5320	4.27	2.89	4.05	3.65	0.59	10.36	10.85	Pass
100	5500	3.68	2.98	3.23	4.23	0.59	10.17	10.97	Pass
116	5580	3.06	4.50	4.12	2.77	0.59	10.29	10.97	Pass
140	5700	3.91	4.49	2.98	4.19	0.59	10.54	10.97	Pass
144	5720 (For U-NII-2C)	3.58	4.27	3.39	3.68	0.59	10.36	10.97	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.15 - 6) = 10.85dBi.
3. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.03 - 6) = 10.97dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	3.19	3.93	3.24	3.36	0.21	9.68	10.85	Pass
60	5300	3.39	2.98	2.36	3.55	0.21	9.33	10.85	Pass
64	5320	2.86	2.25	2.65	3.75	0.21	9.15	10.85	Pass
100	5500	2.88	2.53	4.37	2.54	0.21	9.39	10.97	Pass
116	5580	3.06	2.93	2.99	3.16	0.21	9.27	10.97	Pass
140	5700	3.54	3.02	3.82	3.64	0.21	9.75	10.97	Pass
144	5720 (For U-NII-2C)	3.50	4.32	2.92	2.96	0.21	9.70	10.97	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.15 - 6) = 10.85dBi.
3. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.03 - 6) = 10.97dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

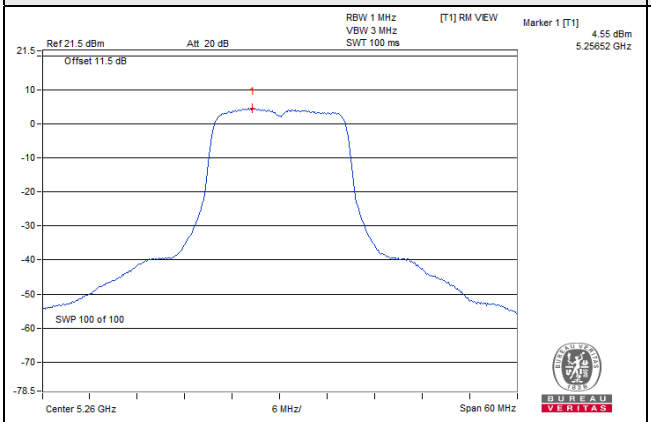
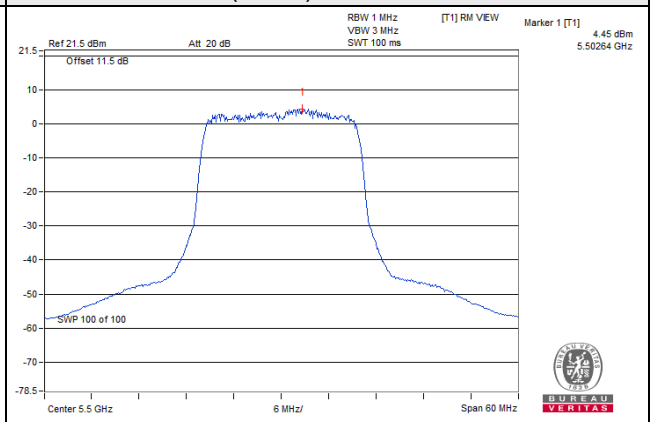
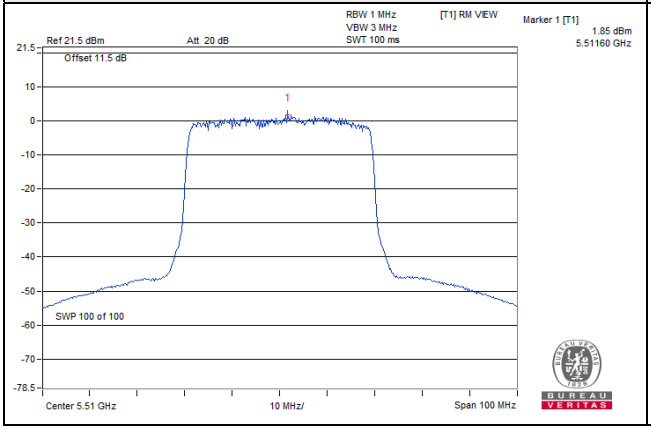
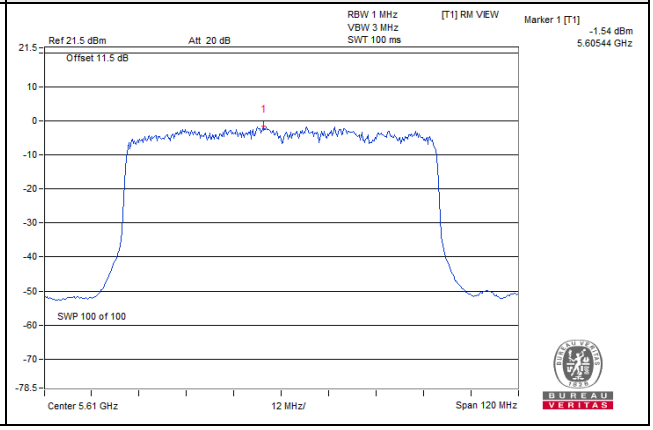
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	0.69	-0.05	0.98	0.81	0.52	7.17	10.85	Pass
62	5310	-0.91	0.71	0.94	1.37	0.52	7.15	10.85	Pass
102	5510	1.32	0.44	1.64	1.85	0.52	7.89	10.97	Pass
110	5550	-0.70	0.53	1.01	1.04	0.52	7.07	10.97	Pass
134	5670	0.82	1.44	1.46	0.16	0.52	7.55	10.97	Pass
142	5710 (For U-NII-2C)	-0.68	0.78	1.16	0.69	0.52	7.08	10.97	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.15 - 6) = 10.85dBi.
3. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.03 - 6) = 10.97dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-2.53	-1.58	-2.34	-1.61	0.26	4.29	10.85	Pass
106	5530	-2.40	-2.36	-1.86	-2.13	0.26	4.10	10.97	Pass
122	5610	-2.23	-1.59	-1.54	-1.56	0.26	4.56	10.97	Pass
138	5690 (For U-NII-2C)	-1.86	-1.68	-1.74	-2.44	0.26	4.37	10.97	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 6.15dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.15 - 6) = 10.85dBi.
3. 5500-5720MHz: Directional gain = 6.03dBi > 6dBi, so the power density limit shall be reduced to 11 - (6.03 - 6) = 10.97dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a / Chain 3 / CH 52	802.11ax (HE20) / Chain 1 / CH 100
	
802.11ax (HE40) / Chain 3 / CH 102	802.11ax (HE80) / Chain 2 / CH 122
	

For U-NII-3 band:

802.11a

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500 kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	144	5720 (For U-NII-3)	-2.62	-0.40	6.02	0.59	6.21	30.00	Pass
1	144	5720 (For U-NII-3)	-1.99	0.23	6.02	0.59	6.84	30.00	Pass
2	144	5720 (For U-NII-3)	-1.58	0.64	6.02	0.59	7.25	30.00	Pass
3	144	5720 (For U-NII-3)	-2.53	-0.31	6.02	0.59	6.30	30.00	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
2. Directional gain = 5.86dBi < 6dBi, so the power density limit not need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500 kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	144	5720 (For U-NII-3)	-2.61	-0.39	6.02	0.21	5.84	30.00	Pass
1	144	5720 (For U-NII-3)	-2.44	-0.22	6.02	0.21	6.01	30.00	Pass
2	144	5720 (For U-NII-3)	-2.37	-0.15	6.02	0.21	6.08	30.00	Pass
3	144	5720 (For U-NII-3)	-2.57	-0.35	6.02	0.21	5.88	30.00	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
2. Directional gain = 5.86dBi < 6dBi, so the power density limit not need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500 kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	142	5710 (For U-NII-3)	-6.11	-3.89	6.02	0.52	2.65	30.00	Pass
1	142	5710 (For U-NII-3)	-5.64	-3.42	6.02	0.52	3.12	30.00	Pass
2	142	5710 (For U-NII-3)	-5.44	-3.22	6.02	0.52	3.32	30.00	Pass
3	142	5710 (For U-NII-3)	-6.15	-3.93	6.02	0.52	2.61	30.00	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
2. Directional gain = 5.86dBi < 6dBi, so the power density limit not need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

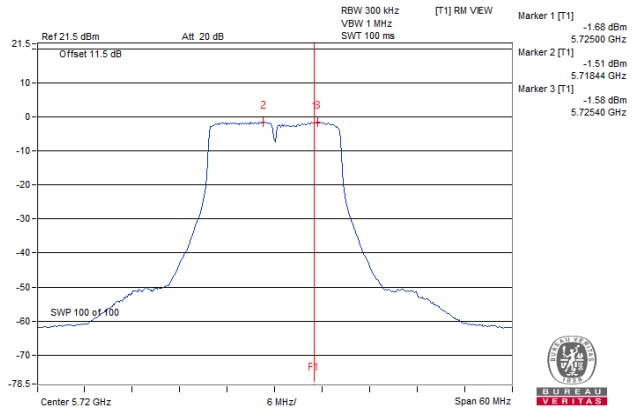
802.11ax (HE80)

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500 kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	138	5690 (For U-NII-3)	-9.63	-7.41	6.02	0.26	-1.13	30.00	Pass
1	138	5690 (For U-NII-3)	-9.17	-6.95	6.02	0.26	-0.67	30.00	Pass
2	138	5690 (For U-NII-3)	-8.93	-6.71	6.02	0.26	-0.43	30.00	Pass
3	138	5690 (For U-NII-3)	-9.39	-7.17	6.02	0.26	-0.89	30.00	Pass

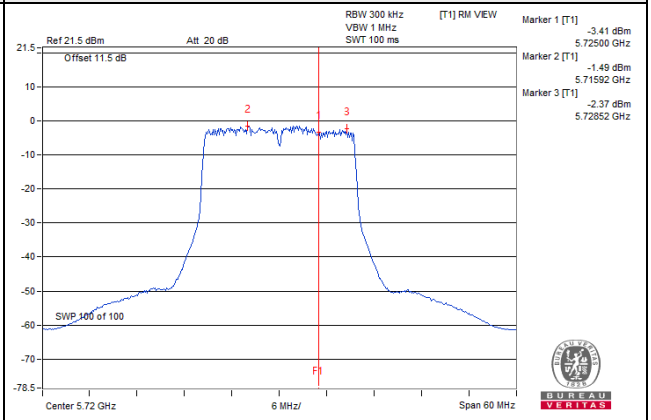
Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
2. Directional gain = 5.86dBi < 6dBi, so the power density limit not need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

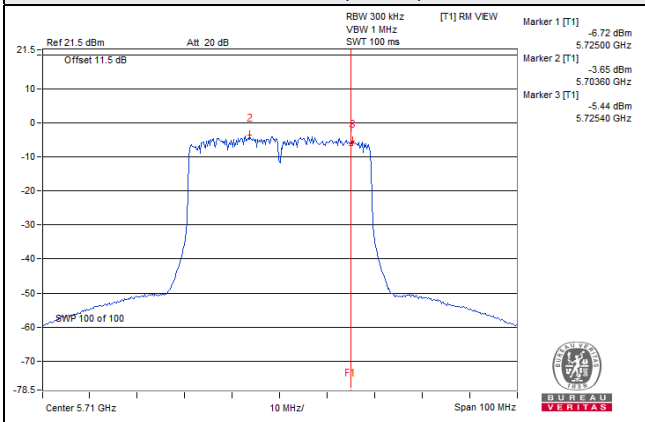
802.11a



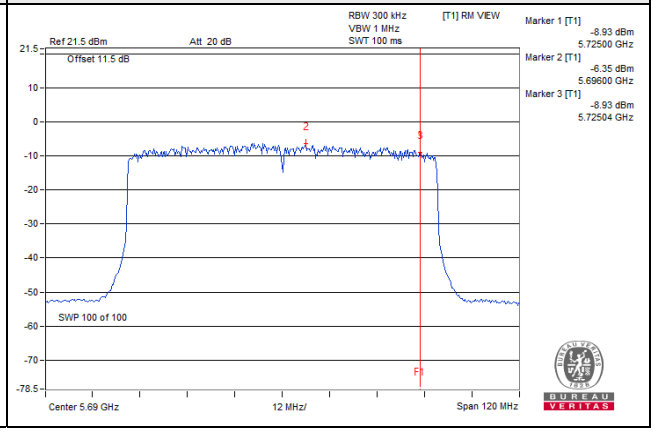
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

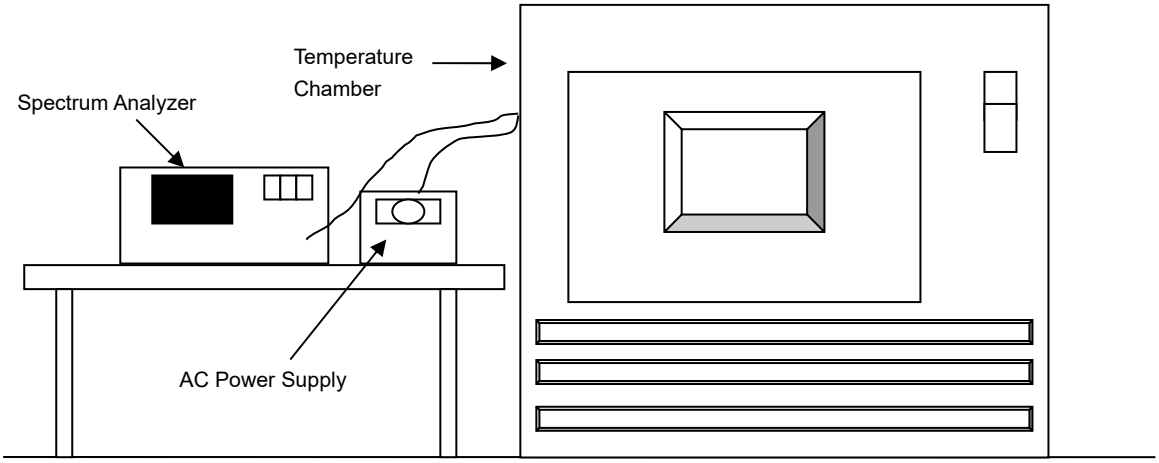


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 16, 2020	Sep. 15, 2021
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2020	May 31, 2021
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2020	Jun. 22, 2021
AC Power Supply Extech	CFW-105	E000603	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.4 Test Procedure

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

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. 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.

e. Repeat step d with every 10 degrees reduction until the lowest temperature achieved.

f. 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.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
40	120	5259.9777	Pass	5259.9784	Pass	5259.9759	Pass	5259.9778	Pass
30	120	5260.0092	Pass	5260.0082	Pass	5260.0063	Pass	5260.01	Pass
20	120	5260.0252	Pass	5260.0254	Pass	5260.0239	Pass	5260.0217	Pass
10	120	5260.0095	Pass	5260.0089	Pass	5260.0096	Pass	5260.0134	Pass
0	120	5259.9745	Pass	5259.9755	Pass	5259.975	Pass	5259.9781	Pass

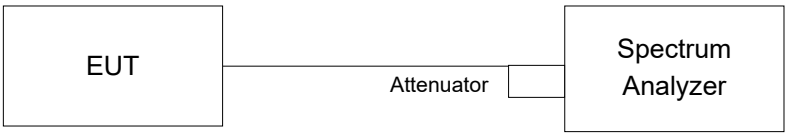
Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5260.0262	Pass	5260.0244	Pass	5260.0242	Pass	5260.0217	Pass
	120	5260.0252	Pass	5260.0254	Pass	5260.0239	Pass	5260.0217	Pass
	102	5260.0252	Pass	5260.0264	Pass	5260.024	Pass	5260.021	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.7.7 Test Results

802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 (For U-NII-3)	3.16	3.15	3.15	3.15	0.50	Pass

For CH144 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11n (HT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 (For U-NII-3)	4.41	4.41	4.46	4.49	0.50	Pass

For CH144 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11n (HT40)

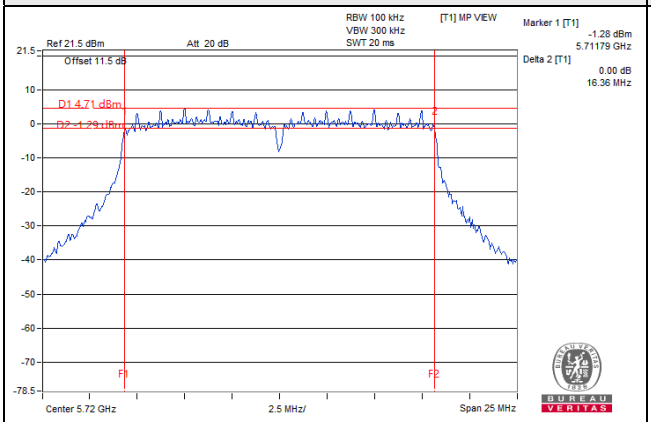
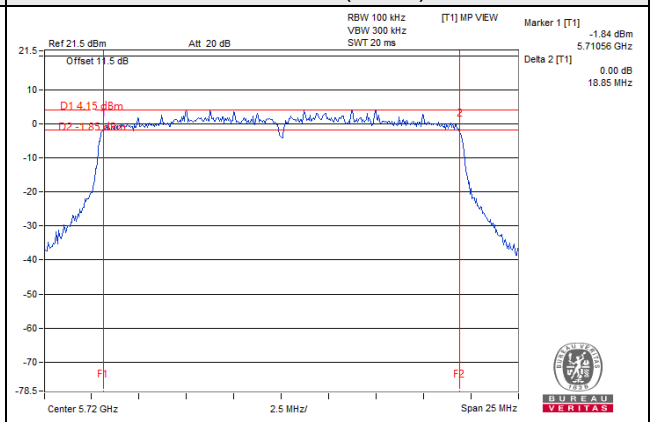
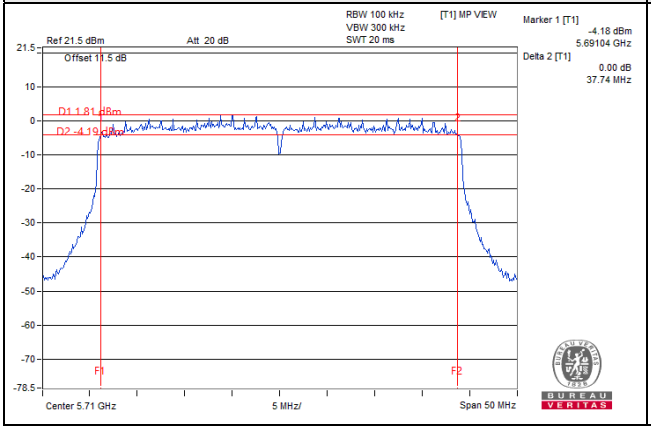
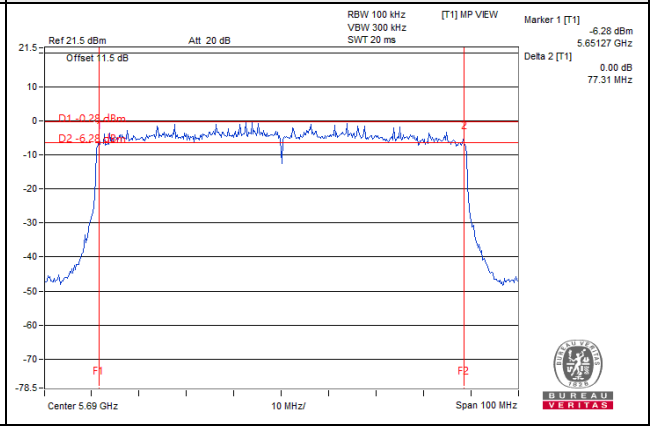
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
142	5710 (For U-NII-3)	3.92	3.88	3.82	3.78	0.50	Pass

For CH142 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ac (VHT80)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690 (For U-NII-3)	3.59	3.58	3.71	3.67	0.50	Pass

For CH138 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value	
802.11a	802.11ax (HE20)
	
802.11ax (HE40)	802.11ax (HE80)
	

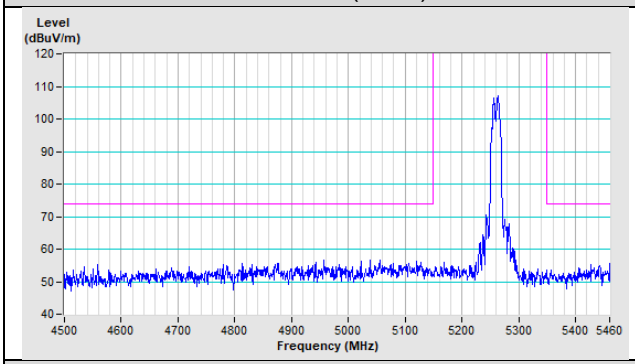
5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

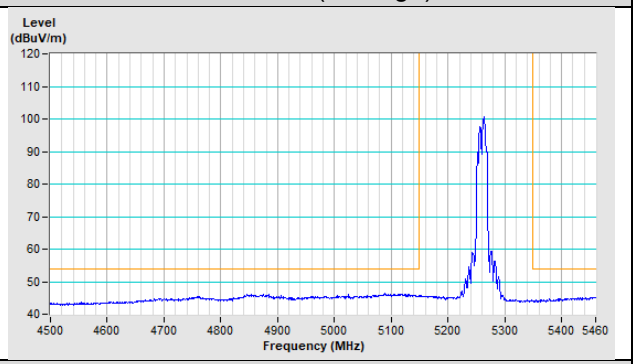
Annex A - Band Edge Measurement

802.11a Channel 52

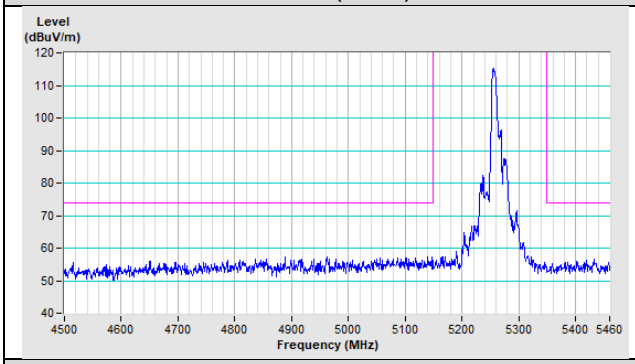
Horizontal (Peak)



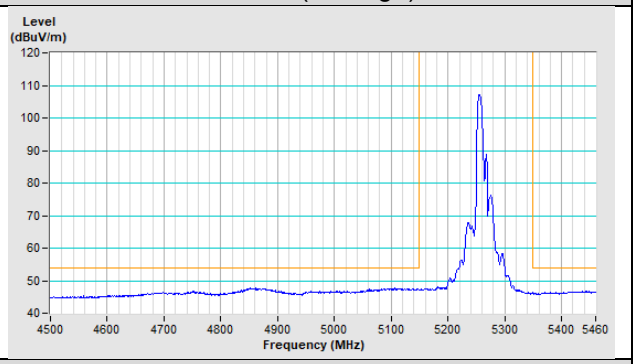
Horizontal (Average)



Vertical (Peak)

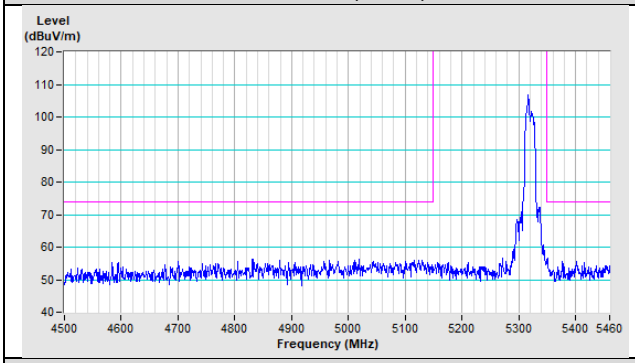


Vertical (Average)

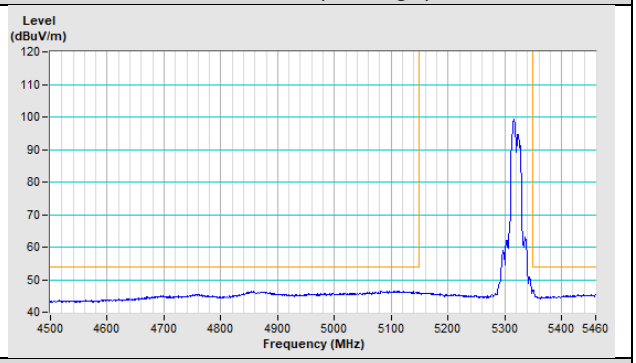


802.11a Channel 64

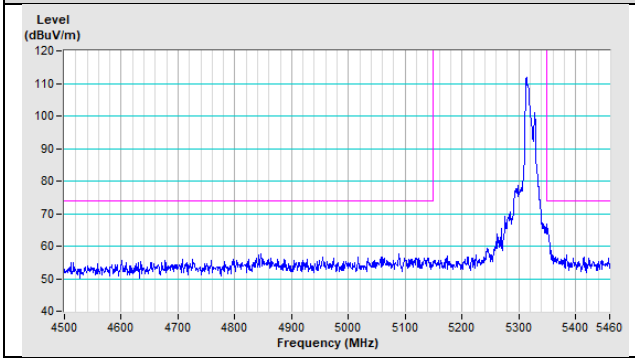
Horizontal (Peak)



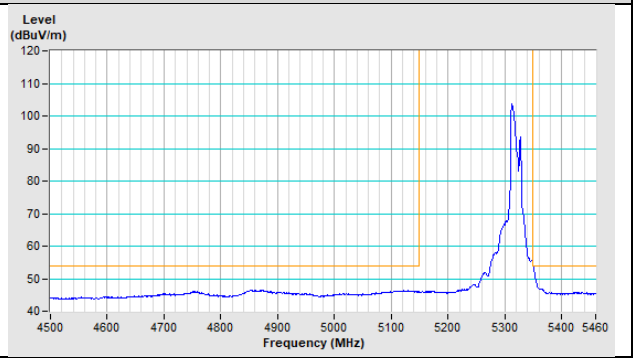
Horizontal (Average)

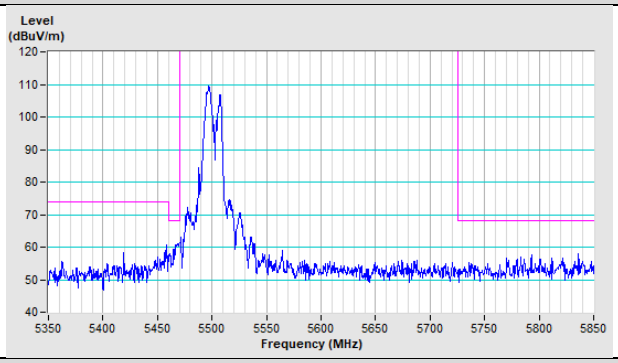
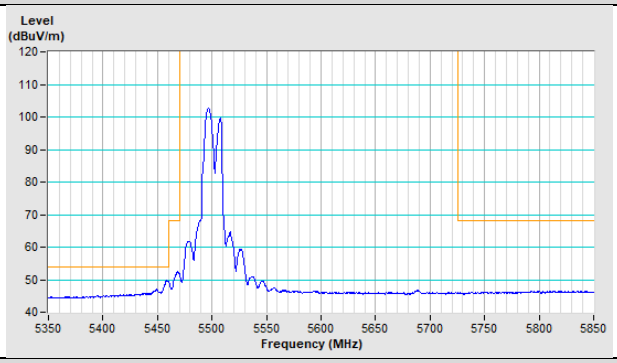
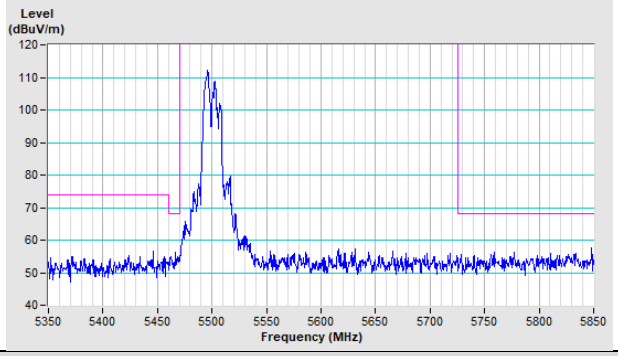
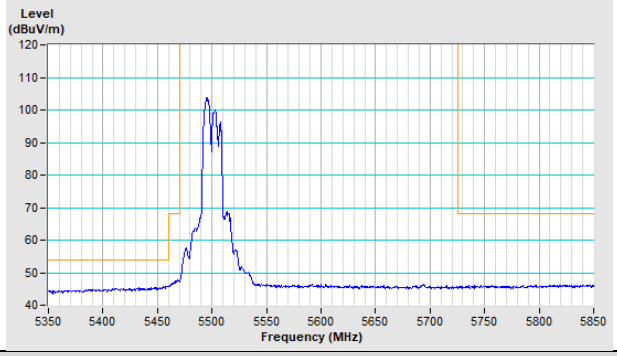
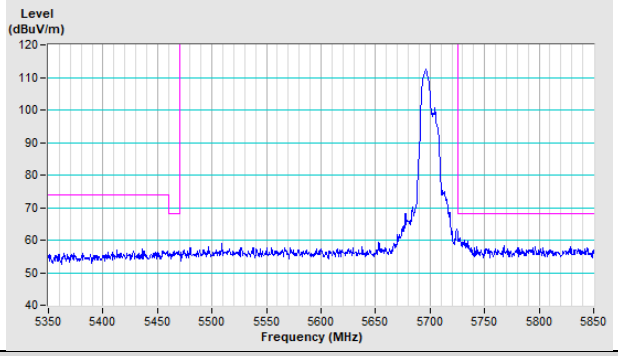
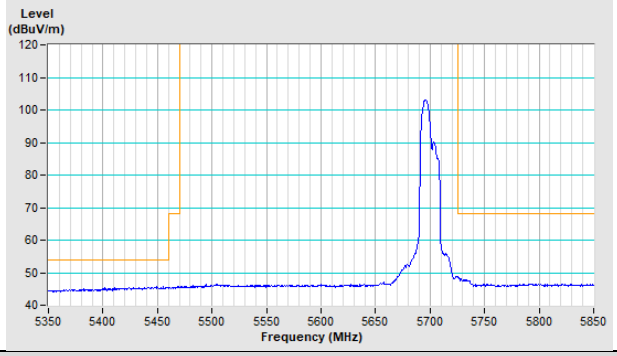
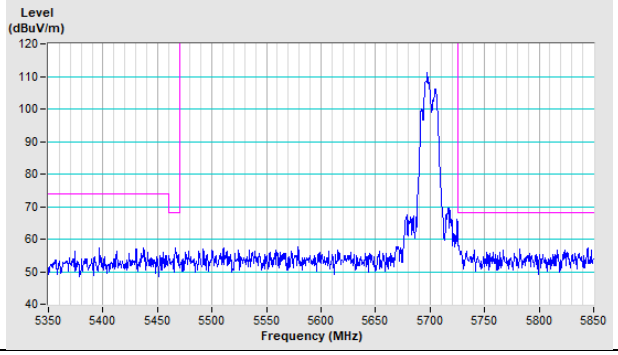
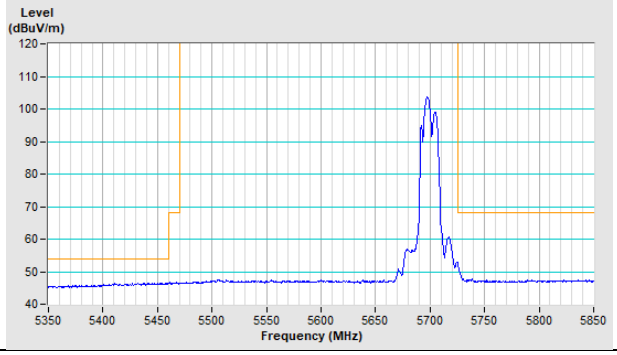


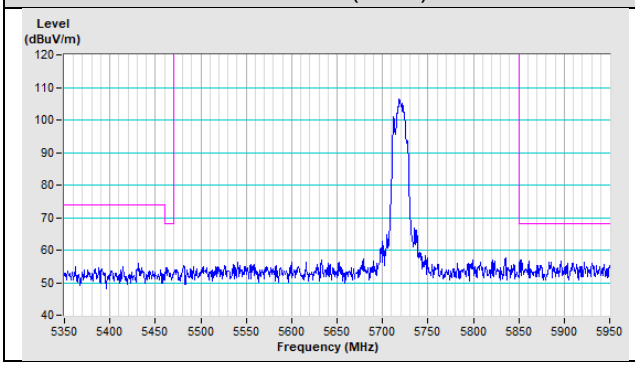
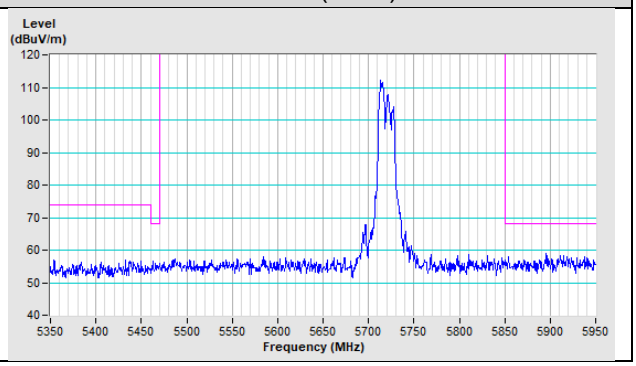
Vertical (Peak)

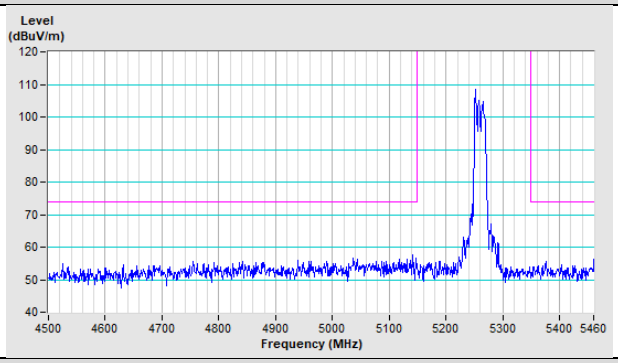
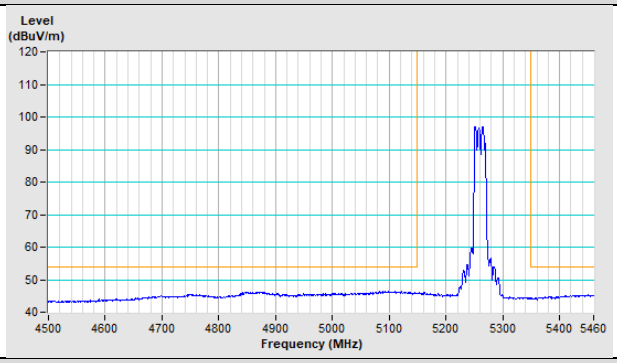
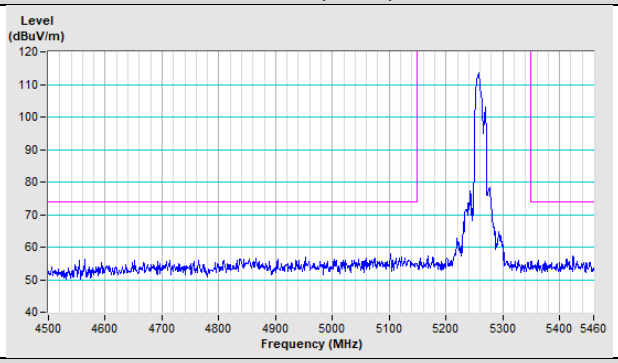
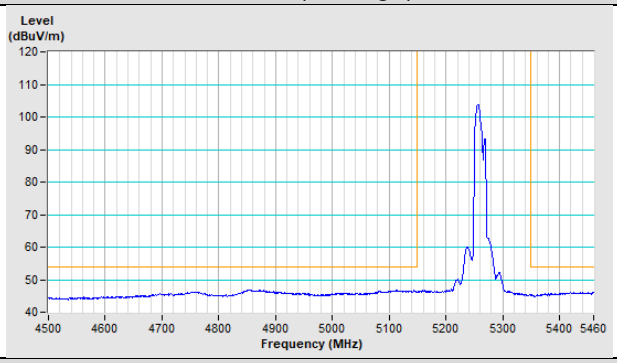
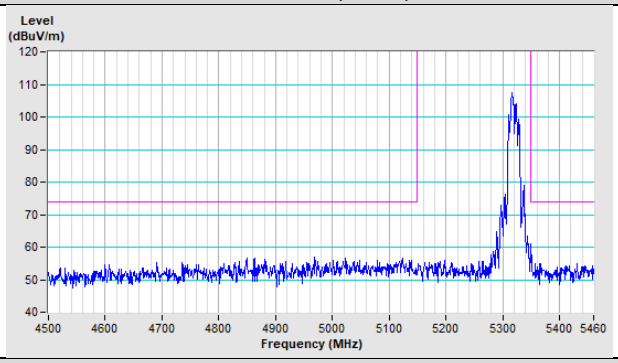
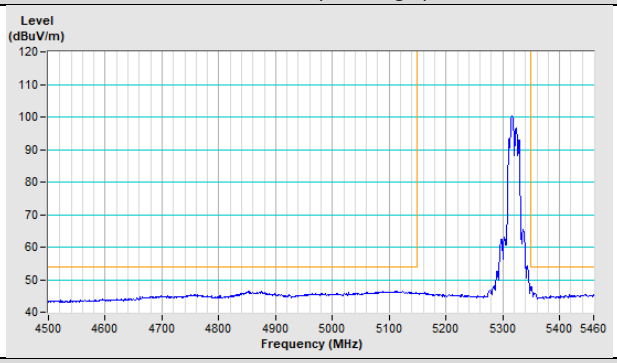
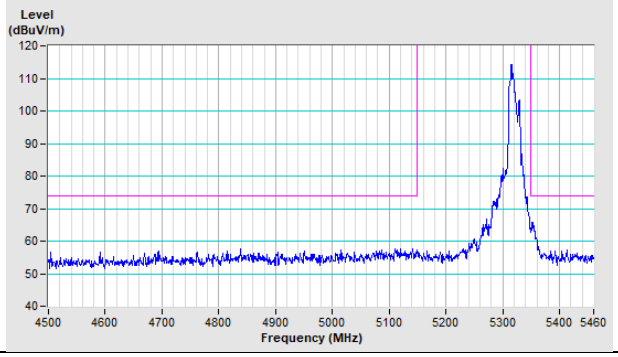
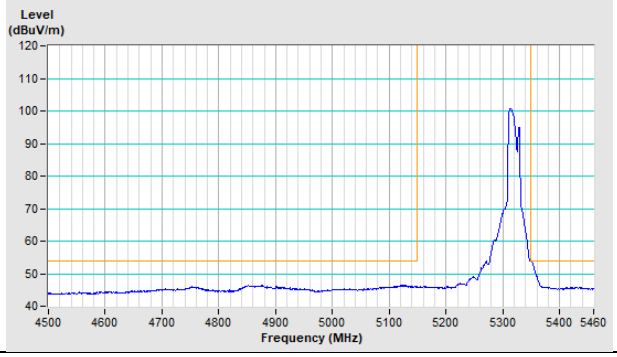


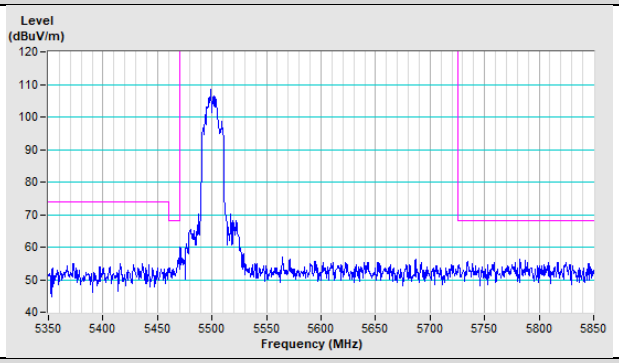
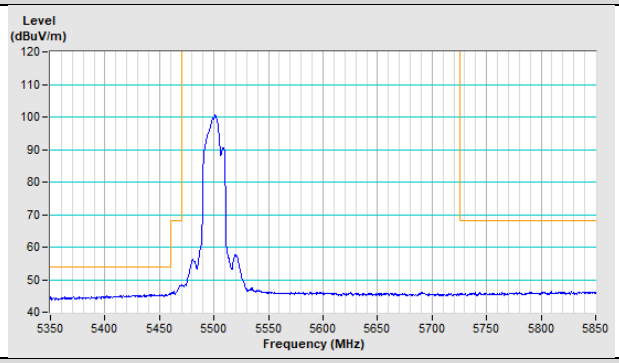
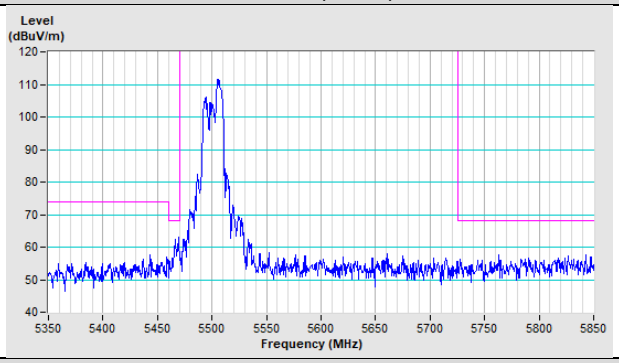
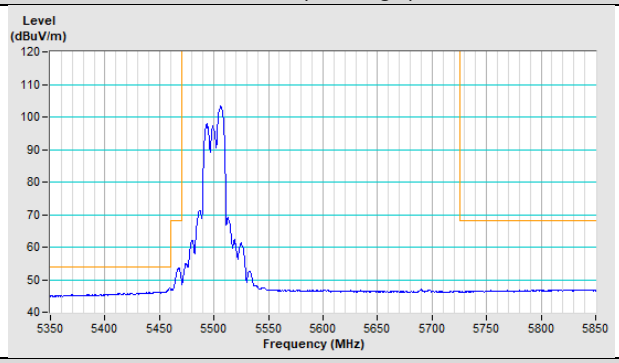
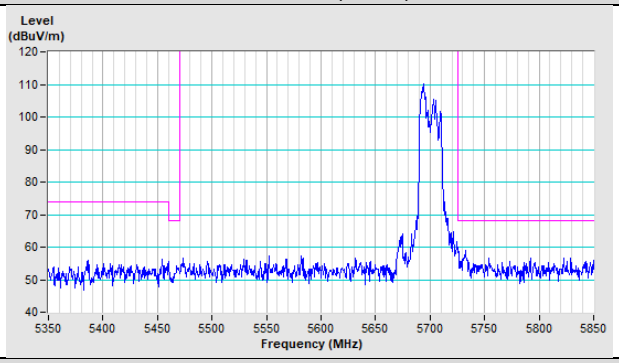
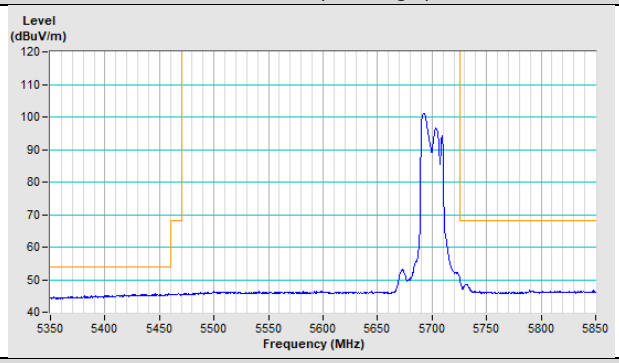
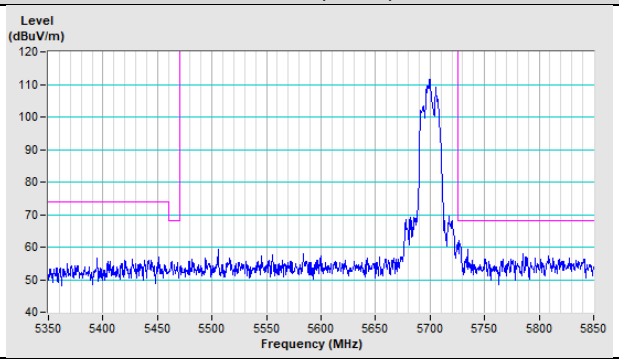
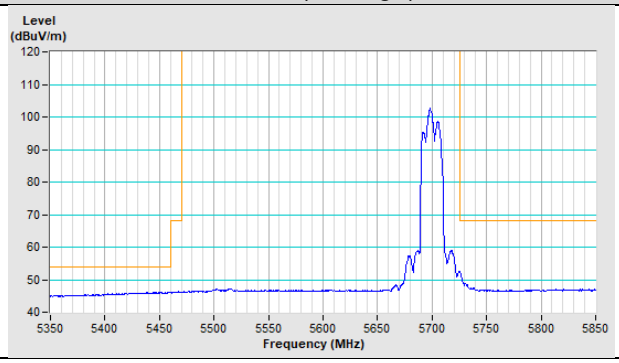
Vertical (Average)

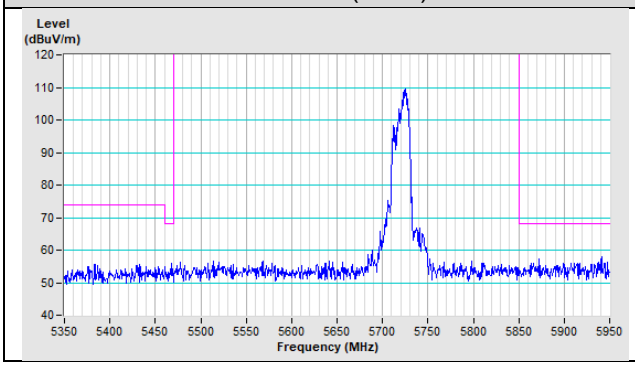
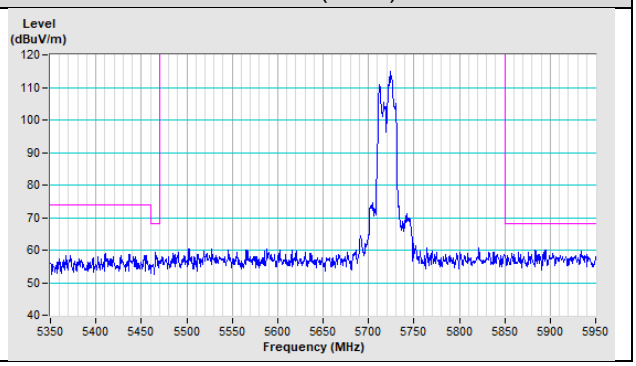


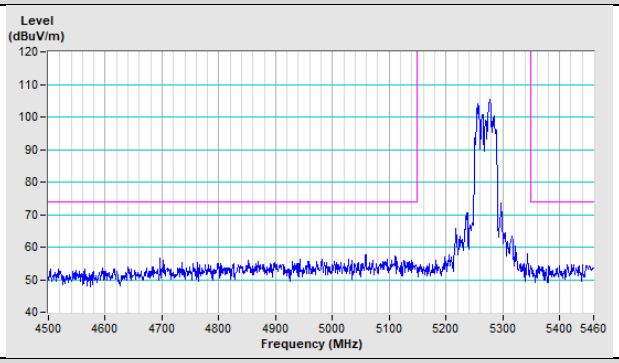
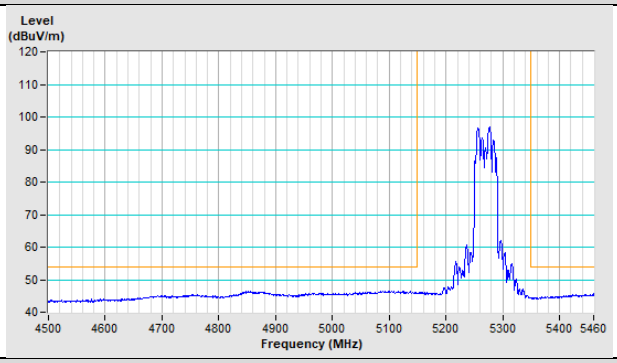
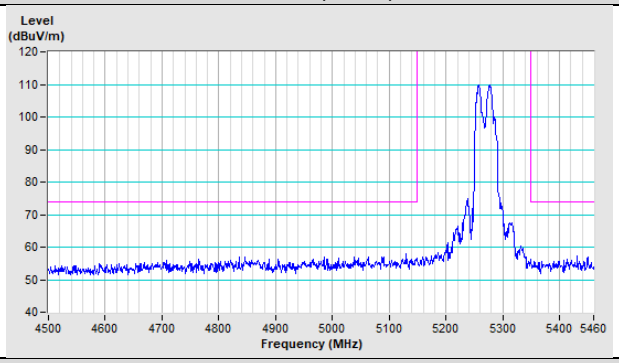
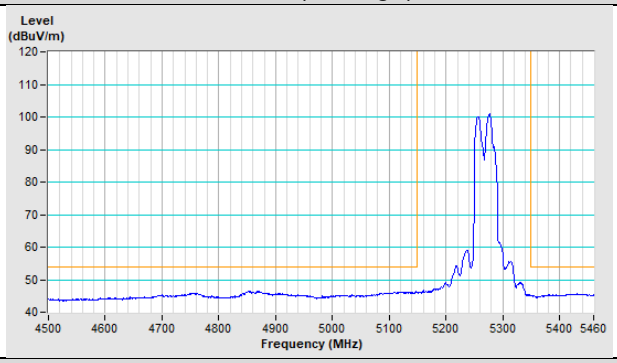
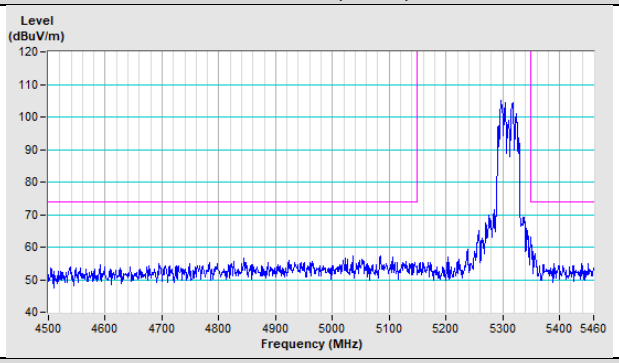
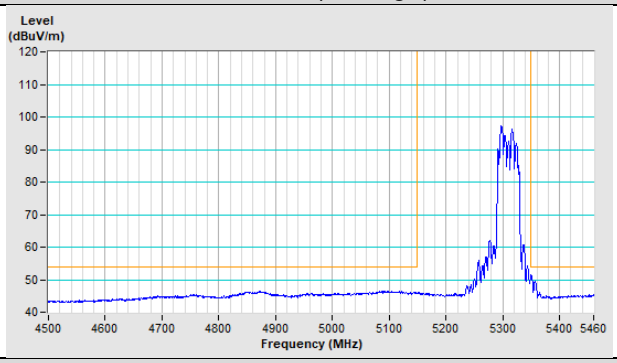
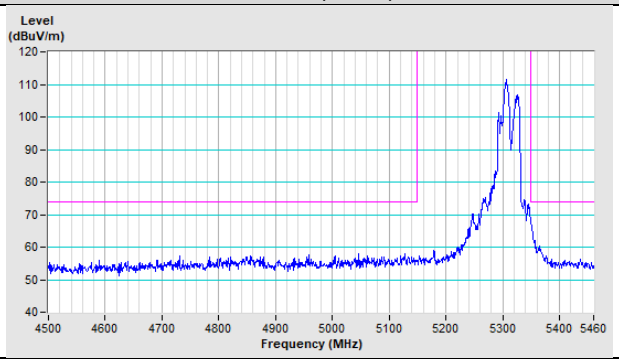
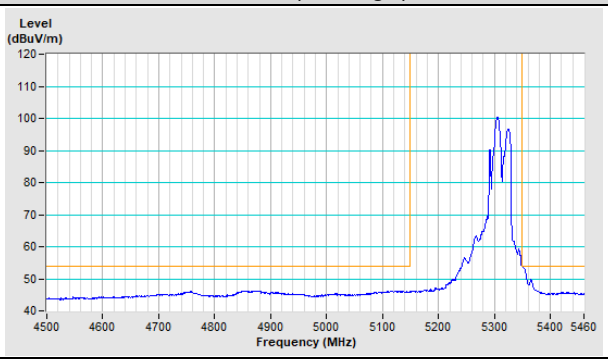
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 140	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

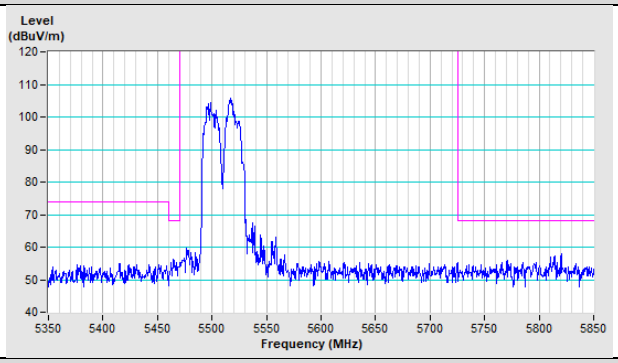
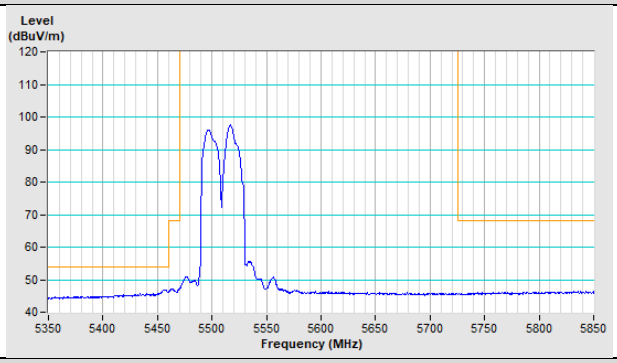
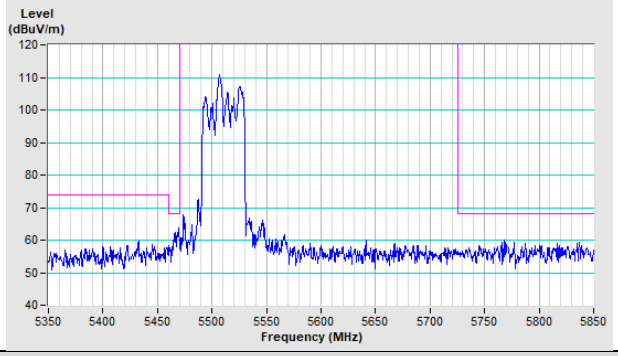
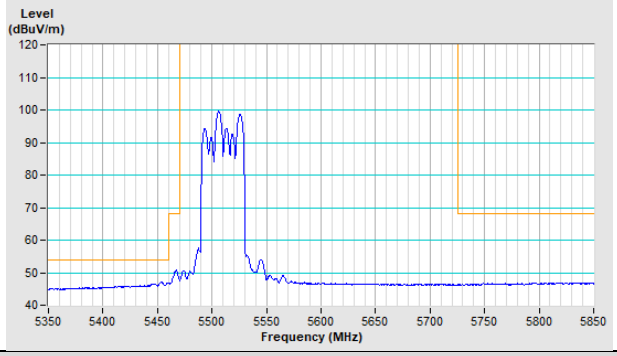
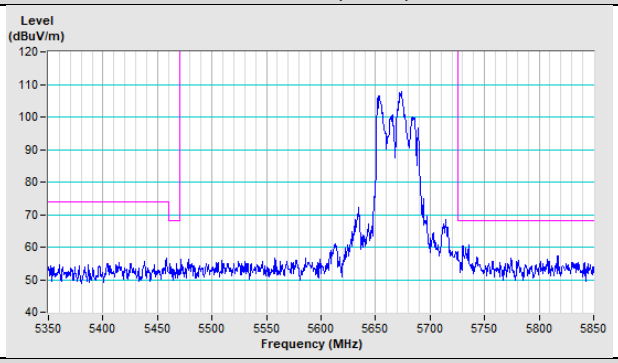
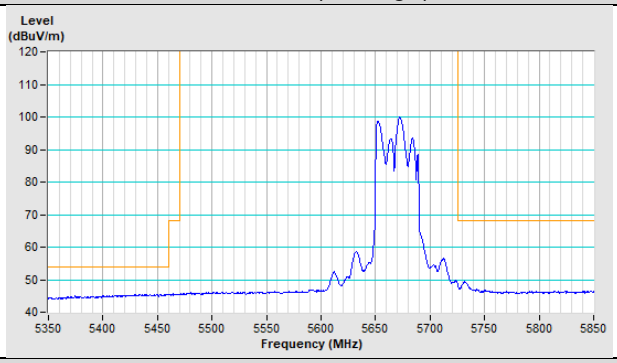
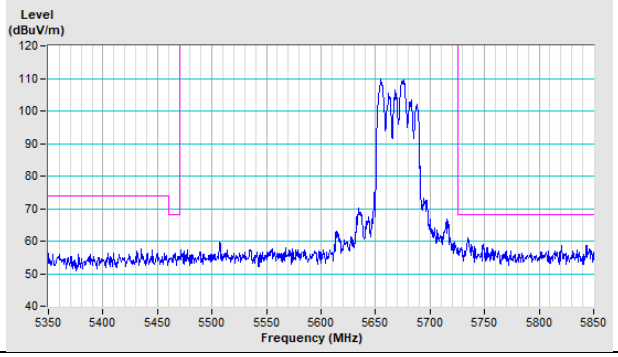
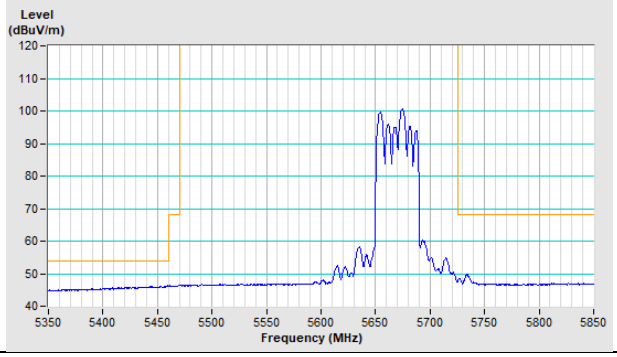
802.11a Channel 144	
Horizontal (Peak)	Vertical (Peak)
	

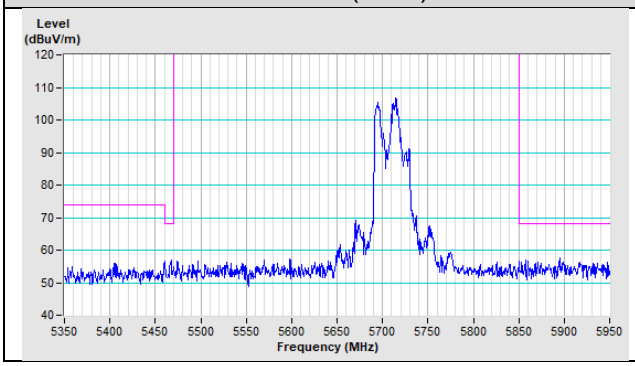
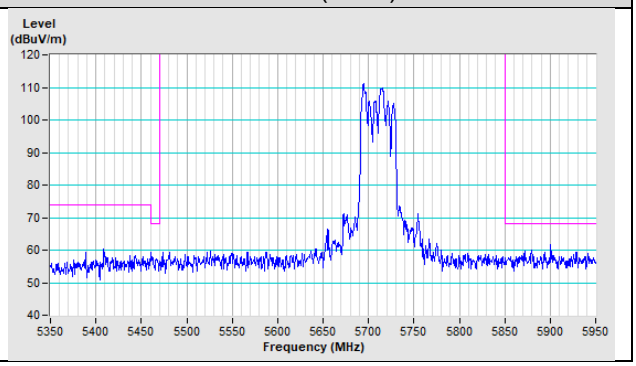
802.11ax (HE20) Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

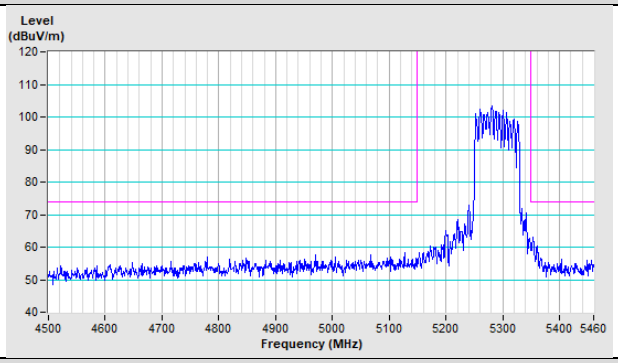
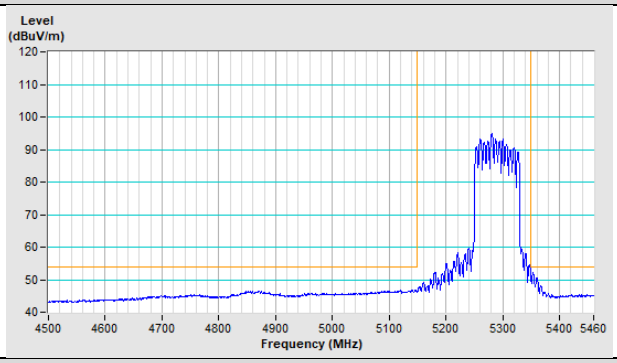
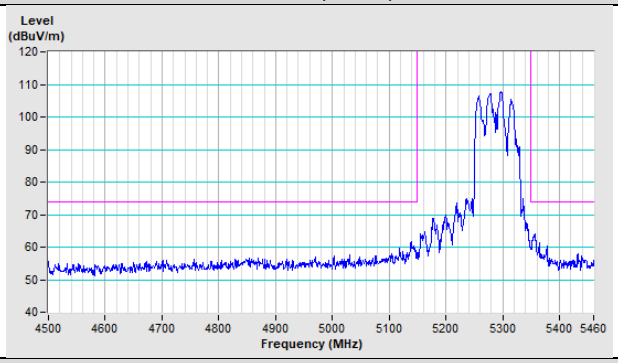
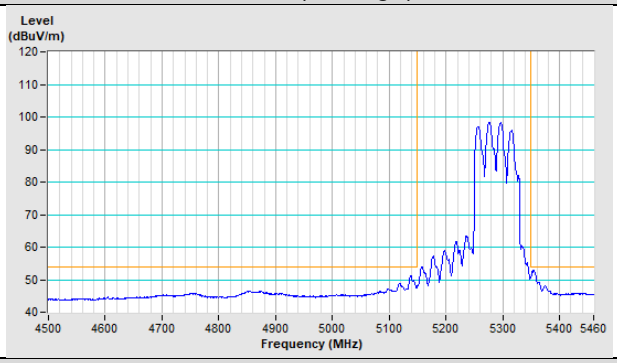
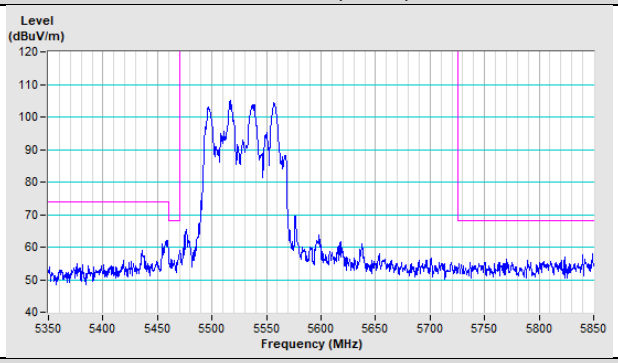
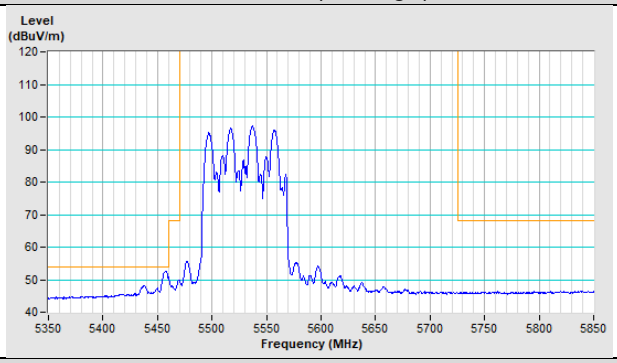
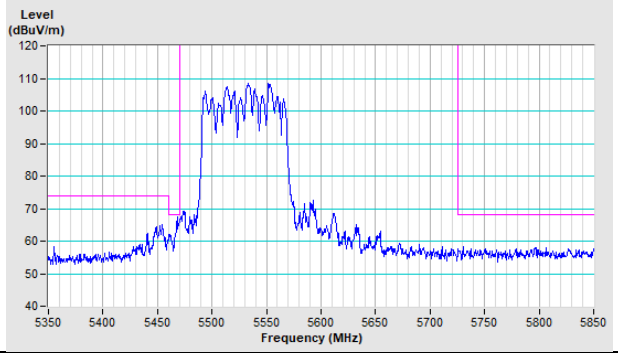
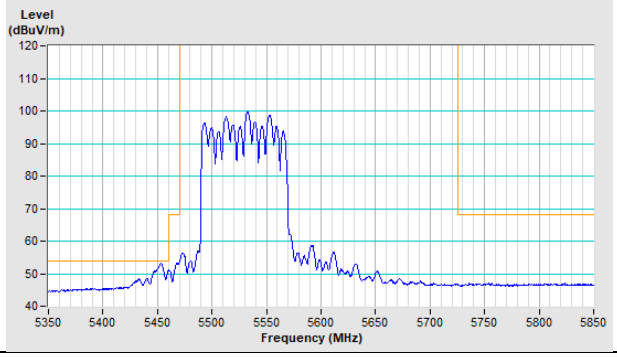
802.11ax (HE20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 140	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

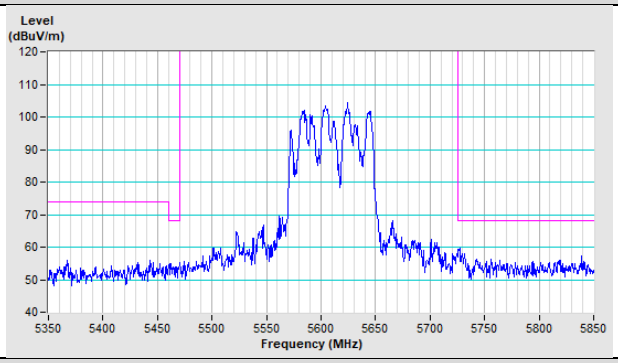
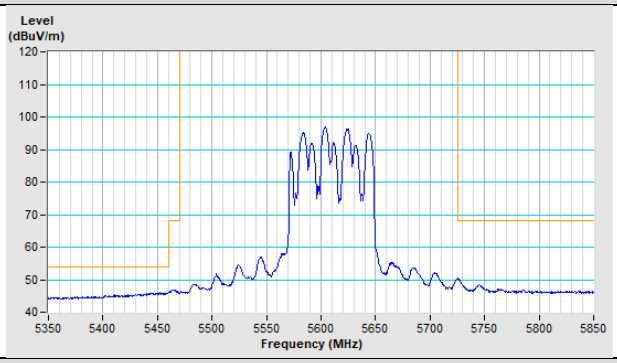
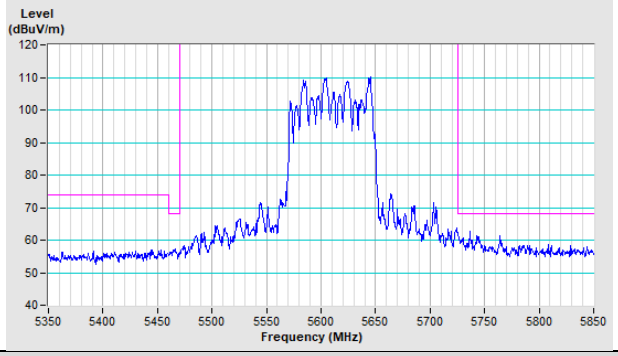
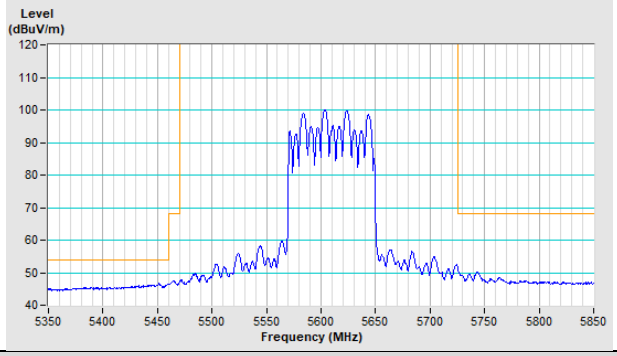
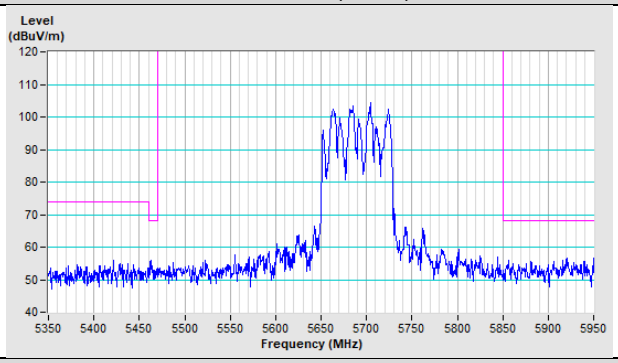
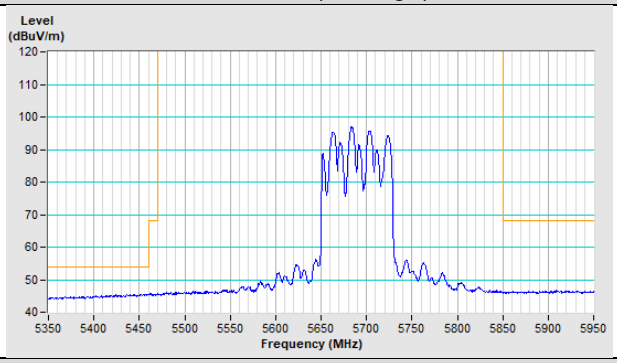
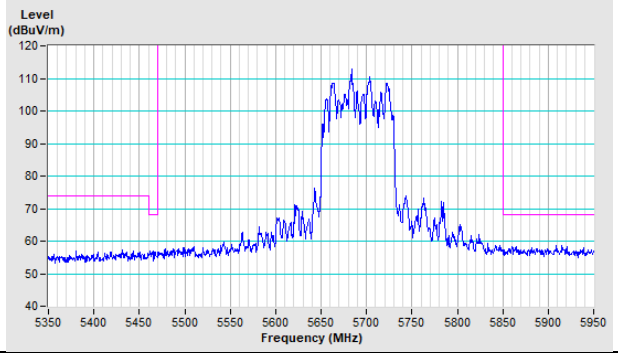
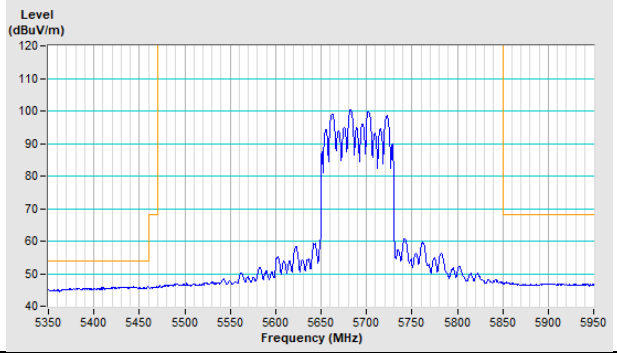
802.11ax (HE20) Channel 144	
Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE40) Channel 54	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 62	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 134	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 142	
Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE80) Channel 58	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE80) Channel 106	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE80) Channel 122	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE80) Channel 138	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

Appendix – 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 and approved according to ISO/IEC 17025.

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

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