FCC Test Report

Report No.:	RFBDYS-WTW-P20090115-1
FCC ID:	Q6G-AP130
Test Model:	AP130
Received Date:	Sep. 02, 2020
Test Date:	Sep. 02 ~ Sep. 13, 2020
Issued Date:	Oct. 19, 2020
Applicant:	WatchGuard Technologies, Inc.
Address:	505 Fifth Avenue South, Suite 500 Seattle WA United States 98104
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

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RFBDYS-WTW-P20090115-1	Original release	Oct. 19, 2020

1 Certificate of Conformity

Product:	Wireless Access Point
Brand:	WatchGuard
Test Model:	AP130
Sample Status:	Engineering sample
Applicant:	WatchGuard Technologies, Inc.
Test Date:	Sep. 02 ~ Sep. 13, 2020
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:** Oct. 19, 2020

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Oct. 19, 2020

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)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.30dB at 0.49822MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.3dB at 5470.00MHz and 5350.00MHz.
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 are IPEX not a standard connector.

Note:

1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
2. For U-NII-1, 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 B. Test Procedures refer to report 4.1.3.
3. 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	3.86 dB
	200MHz ~1000MHz	3.87 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	Wireless Access Point
Brand	WatchGuard
Test Model	AP130
Sample Status	Engineering sample
Power Supply Rating	12Vdc from Adapter 54Vdc from 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 300Mbps 802.11ac: up to 866.7Mbps 802.11ax: up to 1200Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 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 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 ~ 5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 11 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 5 802.11ac (VHT80), 802.11ax (HE80): 2 5745 ~ 5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	CDD Mode: 5180 ~ 5240MHz: 330.049mW 5260 ~ 5320MHz: 244.115mW 5500 ~ 5700MHz: 234.717mW 5745 ~ 5825MHz: 284.143mW Beamforming Mode: 5180 ~ 5240MHz: 165.036mW 5260 ~ 5320MHz: 122.066mW 5500 ~ 5700MHz: 117.366mW 5745 ~ 5825MHz: 142.081mW

Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	NA
Cable Supplied	NA

Note:

1. 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	2TX
802.11n (HT20)	Not Support	2TX
802.11n (HT40)	Not Support	2TX
802.11ac (VHT20)	Support	2TX
802.11ac (VHT40)	Support	2TX
802.11ac (VHT80)	Support	2TX
802.11ax (HE20)	Support	2TX
802.11ax (HE40)	Support	2TX
802.11ax (HE80)	Support	2TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 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.

2. The EUT consumes power from the following adapter and PoE.

Adapter (Optional)	
Brand	Asian Power Devices Inc.
Model	WA-30J12R
Input Power	100-240Vac, 50-60Hz, 0.9A Max
Output Power	12Vdc, 2.5A
Power Line	1.45m DC cable without core attached on adapter

PoE (Optional)	
Brand	SENAO Networks, Inc.
Model	EPA5006GAT
Input Power	100-240Vac, 50-60Hz, 0.8A
Output Power	54Vdc, 0.6A
Power Line	0.5m AC cable without core

3. The following antennas were provided to the EUT.

Antenna Type	PIFA					
Antenna Connector	IPEX					
Antenna No.	Gain (dBi)					
	2400MHz	2450MHz	2500MHz	5150MHz	5500MHz	5850MHz
1	3.35	3.46	3.41	-	-	-
2	3.13	3.40	3.31	-	-	-
3	-	-	-	4.22	4.85	4.75
4	-	-	-	4.22	4.52	3.77

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

3.2 Description of Test Modes

For 5180 ~ 5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

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

Channel	Frequency
42	5210MHz

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 ~ 5700MHz:

11 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		

5 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		

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

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz

For 5745 ~ 5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

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

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from adapter
B	-	√	√	-	Power from 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 **Z-plane**.
2. Radiated emission test (below 1GHz) and power line conducted emission test items chosen the worst maximum power.
3. "-": Means no effect.

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	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
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	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11ax (HE20)		100 to 140	100, 116, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	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)	5180-5240	36 to 48	48	OFDMA	6.0
	802.11ax (HE20)	5260-5320	52 to 64		OFDMA	6.0
	802.11ax (HE20)	5500-5700	100 to 140		OFDMA	6.0
	802.11ax (HE20)	5745-5825	149 to 165		OFDMA	6.0

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)	5180-5240	36 to 48	48	OFDMA	6.0
	802.11ax (HE20)	5260-5320	52 to 64		OFDMA	6.0
	802.11ax (HE20)	5500-5700	100 to 140		OFDMA	6.0
	802.11ax (HE20)	5745-5825	149 to 165		OFDMA	6.0

Bandwidth, 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	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
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	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11ax (HE20)		100 to 140	100, 116, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	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	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT80)		42	42	OFDM	29.3
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	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	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11ac (VHT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	29.3
	802.11ax (HE20)		100 to 140	100, 116, 140	OFDMA	MCS0
	802.11ax (HE40)		102 to 134	102, 110, 134	OFDMA	MCS0
	802.11ax (HE80)		106 to 122	106, 122	OFDMA	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11n (HT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT80)		155	155	OFDM	29.3
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	MCS0

Test Condition:

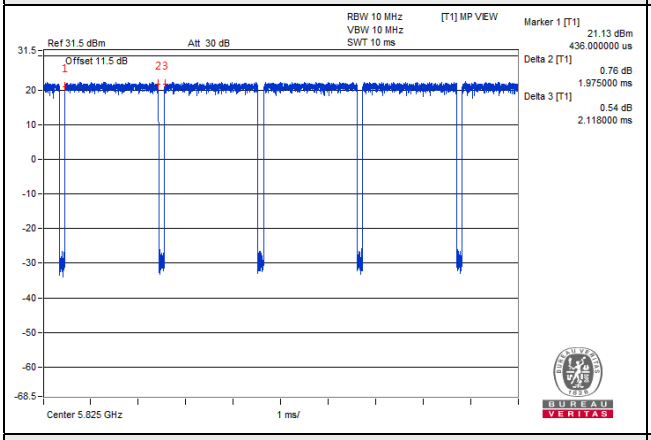
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	23 deg. C, 66% RH	120Vac, 60Hz	Titan Hsu
RE<1G	25 deg. C, 70% RH	120Vac, 60Hz 54Vdc	Adair Peng
PLC	23 deg. C, 66% RH	120Vac, 60Hz 54Vdc	Titan Hsu
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Jisyong Wang

3.3 Duty Cycle of Test Signal

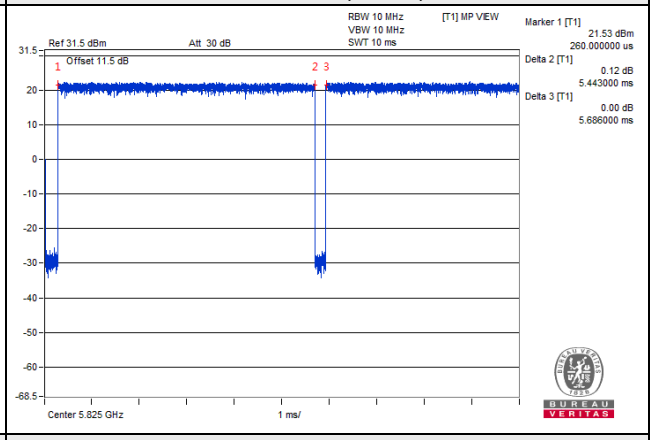
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = 1.975/2.118 = 0.932, Duty factor = 10 * log (1/0.932) = 0.30
802.11ax (HE20): Duty cycle = 5.443/5.686 = 0.957, Duty factor = 10 * log (1/0.957) = 0.19
802.11ax (HE40): Duty cycle = 5.442/5.712 = 0.953, Duty factor = 10 * log (1/0.953) = 0.21
802.11ax (HE80): Duty cycle = 5.435/5.835 = 0.931, Duty factor = 10 * log (1/0.931) = 0.31

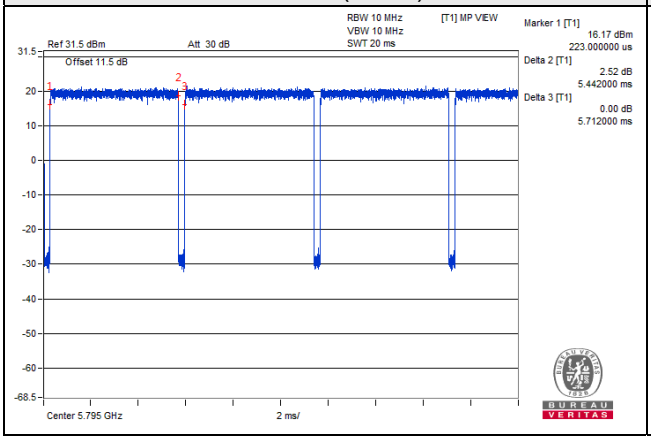
802.11a



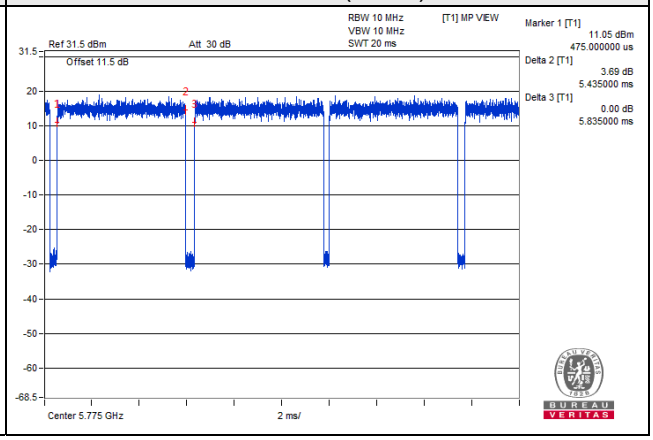
802.11ax (HE20)



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	FCC DoC Approved	-
B.	Adapter	Asian Power Devices Inc.	WA-30J12R	NA	NA	Optional
C.	POE	SENAO Networks, Inc.	EPA5006GAT	NA	NA	Optional

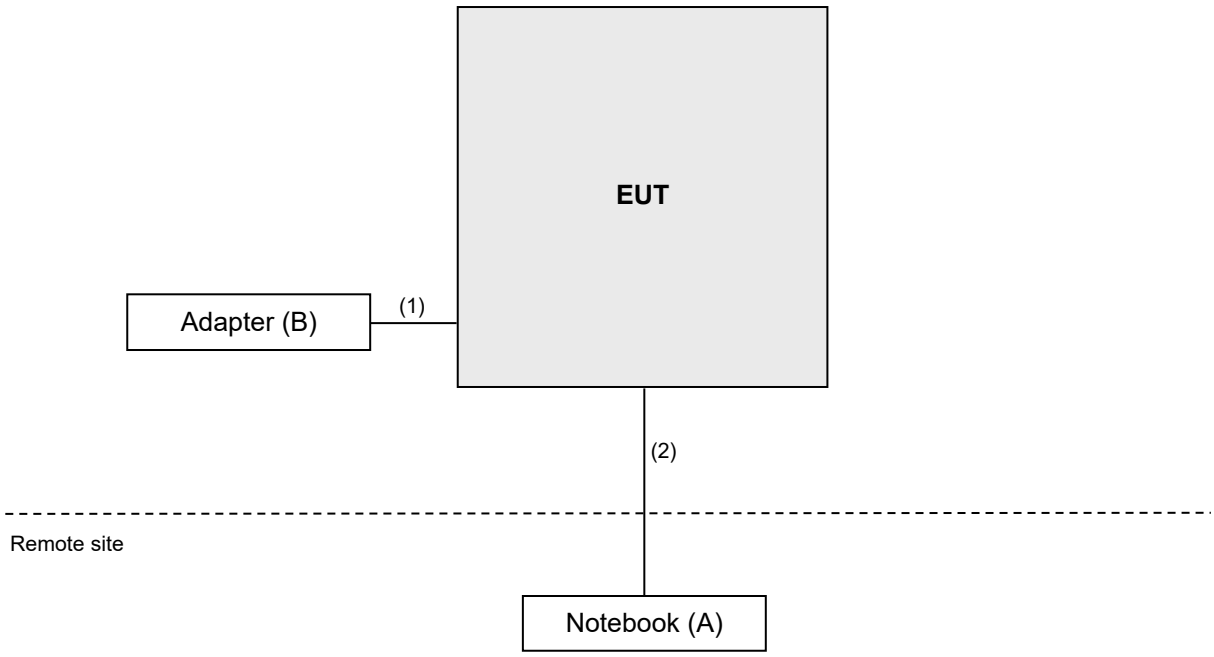
Note:

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

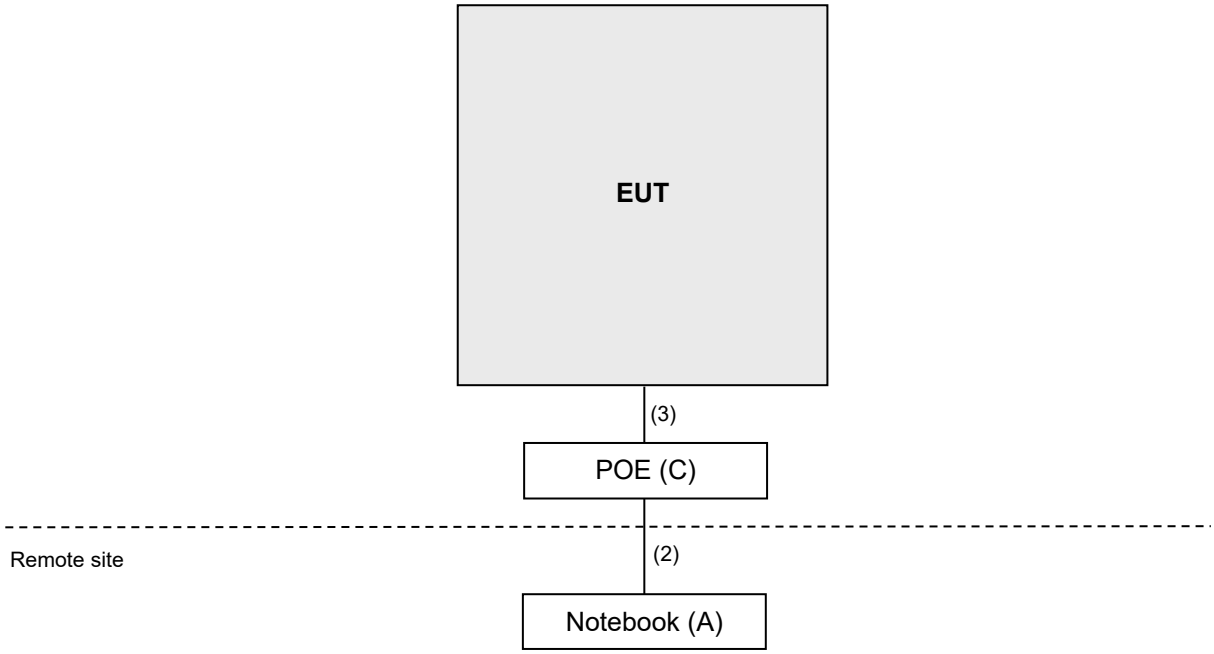
ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Power cable	1	1.5	-	0	Optional
2.	LAN	1	7.0	N	0	RJ45, Cat5e
3.	LAN	1	1.5	N	0	RJ45, Cat5e

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="3">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="3" 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
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 09, 2020	Jun. 08, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSV40	100979	Mar. 18, 2020	Mar. 17, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	9120D	209	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Loop Antenna TESEQ	HLA 6121	45745	Jul. 06, 2020	Jul. 05, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 16, 2020	Aug. 15, 2021
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Mar. 23, 2020	Mar. 22, 2021
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH3-01	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-S M-8000	Cable-CH3-03 (309224+170907)	Aug. 16, 2020	Aug. 15, 2021
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 05, 2019	Sep. 04, 2020
			Sep. 04, 2020	Sep. 03, 2021
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY5519 0004/MY55190007/MY 55210005	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 3.

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)

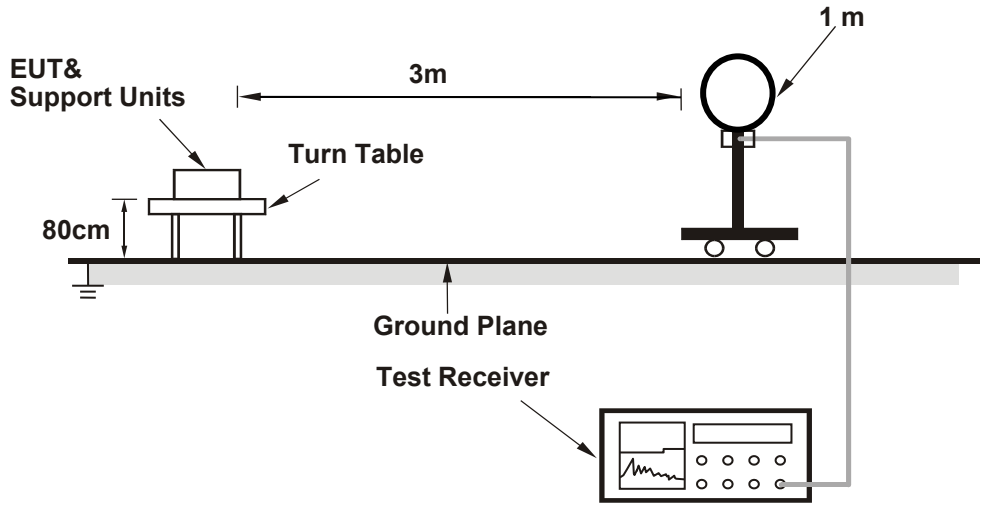
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

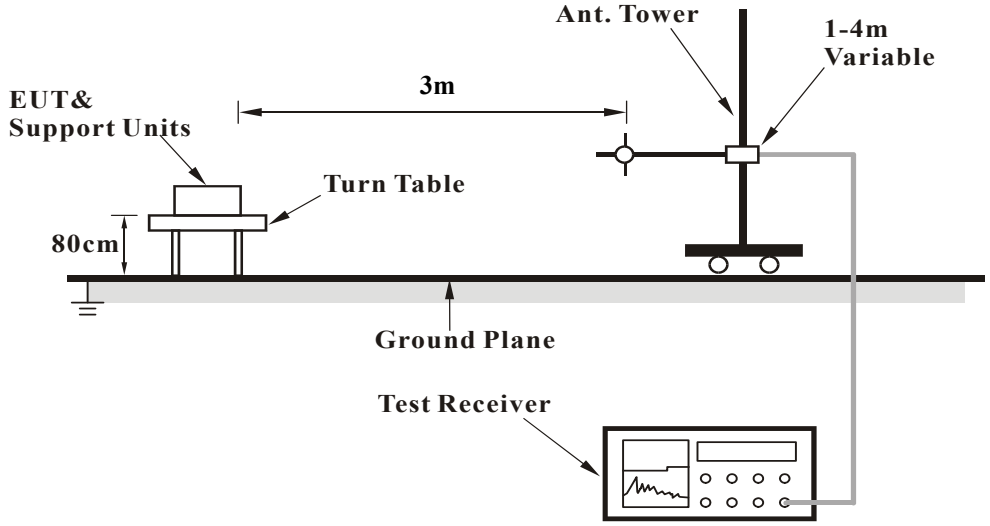
No deviation.

4.1.5 Test Setup

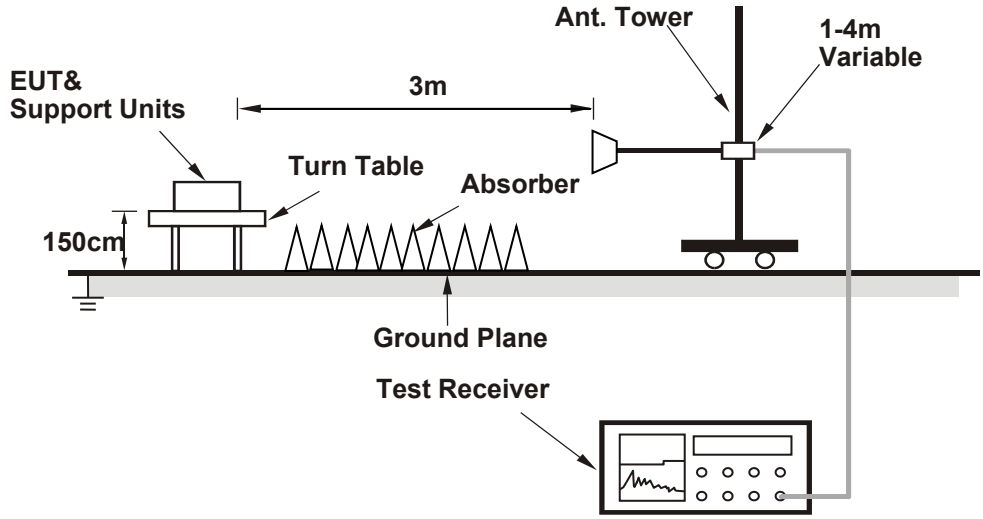
For Radiated emission below 30MHz



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 36：5180 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	66.6 PK	74.0	-7.4	1.25 H	255	60.1	6.5
2	5150.00	52.1 AV	54.0	-1.9	1.25 H	255	45.6	6.5
3	*5180.00	115.5 PK			1.22 H	253	73.4	42.1
4	*5180.00	104.9 AV			1.22 H	253	62.8	42.1
5	#10360.00	60.5 PK	68.2	-7.7	1.69 H	49	43.9	16.6
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	5150.00	67.0 PK	74.0	-7.0	1.82 V	281	60.5	6.5
2	5150.00	52.6 AV	54.0	-1.4	1.82 V	281	46.1	6.5
3	*5180.00	116.8 PK			1.80 V	277	74.7	42.1
4	*5180.00	106.3 AV			1.80 V	277	64.2	42.1
5	#10360.00	60.0 PK	68.2	-8.2	2.55 V	16	43.4	16.6

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 40：5200 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	*5200.00	117.2 PK			1.22 H	255	75.1	42.1
2	*5200.00	106.6 AV			1.22 H	255	64.5	42.1
3	#10400.00	61.0 PK	68.2	-7.2	1.72 H	49	44.1	16.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	119.0 PK			1.89 V	332	76.9	42.1
2	*5200.00	107.9 AV			1.89 V	332	65.8	42.1
3	#10400.00	60.3 PK	68.2	-7.9	2.42 V	26	43.4	16.9

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 48：5240 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	*5240.00	118.2 PK			1.31 H	259	76.3	41.9
2	*5240.00	107.1 AV			1.31 H	259	65.2	41.9
3	5350.00	57.0 PK	74.0	-17.0	1.33 H	261	50.7	6.3
4	5350.00	44.2 AV	54.0	-9.8	1.33 H	261	37.9	6.3
5	#10480.00	61.1 PK	68.2	-7.1	1.61 H	49	43.6	17.5
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	*5240.00	120.1 PK			1.83 V	309	78.2	41.9
2	*5240.00	108.5 AV			1.83 V	309	66.6	41.9
3	5350.00	57.2 PK	74.0	-16.8	1.86 V	315	50.9	6.3
4	5350.00	44.0 AV	54.0	-10.0	1.86 V	315	37.7	6.3
5	#10480.00	60.5 PK	68.2	-7.7	2.29 V	22	43.0	17.5

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 802.11a	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	58.6 PK	74.0	-15.4	1.19 H	283	52.1	6.5
2	5150.00	45.5 AV	54.0	-8.5	1.19 H	283	39.0	6.5
3	*5260.00	117.4 PK			1.15 H	281	75.6	41.8
4	*5260.00	107.2 AV			1.15 H	281	65.4	41.8
5	#10520.00	59.8 PK	68.2	-8.4	2.01 H	156	42.4	17.4
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	5150.00	58.0 PK	74.0	-16.0	1.92 V	22	51.5	6.5
2	5150.00	45.8 AV	54.0	-8.2	1.92 V	22	39.3	6.5
3	*5260.00	118.8 PK			1.87 V	17	77.0	41.8
4	*5260.00	107.7 AV			1.87 V	17	65.9	41.8
5	#10520.00	59.7 PK	68.2	-8.5	2.21 V	203	42.3	17.4

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.

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	116.8 PK			1.13 H	280	74.9	41.9
2	*5300.00	106.7 AV			1.13 H	280	64.8	41.9
3	10600.00	59.4 PK	74.0	-14.6	2.19 H	169	42.3	17.1
4	10600.00	46.2 AV	54.0	-7.8	2.19 H	169	29.1	17.1
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	*5300.00	119.2 PK			1.97 V	4	77.3	41.9
2	*5300.00	108.9 AV			1.97 V	4	67.0	41.9
3	10600.00	59.3 PK	74.0	-14.7	2.26 V	211	42.2	17.1
4	10600.00	46.3 AV	54.0	-7.7	2.26 V	211	29.2	17.1

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.

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	115.9 PK			1.16 H	282	74.0	41.9
2	*5320.00	105.7 AV			1.16 H	282	63.8	41.9
3	5350.00	62.3 PK	74.0	-11.7	1.20 H	289	56.0	6.3
4	5350.00	50.3 AV	54.0	-3.7	1.20 H	289	44.0	6.3
5	10640.00	59.5 PK	74.0	-14.5	2.13 H	166	42.2	17.3
6	10640.00	46.3 AV	54.0	-7.7	2.13 H	166	29.0	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	118.8 PK			2.08 V	359	76.9	41.9
2	*5320.00	108.0 AV			2.08 V	359	66.1	41.9
3	5350.00	66.4 PK	74.0	-7.6	2.07 V	303	60.1	6.3
4	5350.00	52.4 AV	54.0	-1.6	2.07 V	303	46.1	6.3
5	10640.00	59.5 PK	74.0	-14.5	2.15 V	213	42.2	17.3
6	10640.00	46.4 AV	54.0	-7.6	2.15 V	213	29.1	17.3

Remarks:

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

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	57.7 PK	74.0	-16.3	1.13 H	278	51.5	6.2
2	5460.00	45.2 AV	54.0	-8.8	1.13 H	278	39.0	6.2
3	#5470.00	59.2 PK	68.2	-9.0	1.19 H	288	53.0	6.2
4	*5500.00	115.6 PK			1.15 H	282	73.7	41.9
5	*5500.00	105.1 AV			1.15 H	282	63.2	41.9
6	11000.00	60.6 PK	74.0	-13.4	2.02 H	158	42.2	18.4
7	11000.00	47.5 AV	54.0	-6.5	2.02 H	158	29.1	18.4
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	58.5 PK	74.0	-15.5	2.11 V	309	52.3	6.2
2	5460.00	45.4 AV	54.0	-8.6	2.11 V	309	39.2	6.2
3	#5470.00	63.1 PK	68.2	-5.1	2.08 V	304	56.9	6.2
4	*5500.00	119.0 PK			1.94 V	20	77.1	41.9
5	*5500.00	108.2 AV			1.94 V	20	66.3	41.9
6	11000.00	60.9 PK	74.0	-13.1	2.18 V	223	42.5	18.4
7	11000.00	47.6 AV	54.0	-6.4	2.18 V	223	29.2	18.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	116.3 PK			1.19 H	281	74.3	42.0
2	*5580.00	105.9 AV			1.19 H	281	63.9	42.0
3	11160.00	60.3 PK	74.0	-13.7	2.11 H	164	42.2	18.1
4	11160.00	47.2 AV	54.0	-6.8	2.11 H	164	29.1	18.1
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	*5580.00	118.5 PK			1.90 V	18	76.5	42.0
2	*5580.00	108.3 AV			1.90 V	18	66.3	42.0
3	11160.00	60.3 PK	74.0	-13.7	2.26 V	216	42.2	18.1
4	11160.00	47.2 AV	54.0	-6.8	2.26 V	216	29.1	18.1

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.

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			1.11 H	277	73.0	42.1
2	*5700.00	104.9 AV			1.11 H	277	62.8	42.1
3	#5725.00	60.3 PK	68.2	-7.9	1.16 H	282	54.0	6.3
4	11400.00	59.8 PK	74.0	-14.2	2.08 H	166	42.2	17.6
5	11400.00	46.6 AV	54.0	-7.4	2.08 H	166	29.0	17.6
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	116.1 PK			1.95 V	18	74.0	42.1
2	*5700.00	105.8 AV			1.95 V	18	63.7	42.1
3	#5725.00	66.5 PK	68.2	-1.7	1.75 V	16	60.2	6.3
4	11400.00	60.0 PK	74.0	-14.0	2.26 V	208	42.4	17.6
5	11400.00	46.8 AV	54.0	-7.2	2.26 V	208	29.2	17.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 149：5745 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	#5629.49	58.2 PK	68.2	-10.0	2.26 H	23	52.1	6.1
2	*5745.00	116.0 PK			2.26 H	23	74.0	42.0
3	*5745.00	105.7 AV			2.26 H	23	63.7	42.0
4	#5934.62	58.1 PK	68.2	-10.1	2.26 H	23	51.1	7.0
5	11490.00	61.0 PK	74.0	-13.0	1.50 H	19	43.0	18.0
6	11490.00	48.0 AV	54.0	-6.0	1.50 H	19	30.0	18.0
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	#5626.92	57.1 PK	68.2	-11.1	1.72 V	13	51.0	6.1
2	*5745.00	118.8 PK			1.72 V	13	76.8	42.0
3	*5745.00	107.5 AV			1.72 V	13	65.5	42.0
4	#5964.10	58.3 PK	68.2	-9.9	1.72 V	13	51.3	7.0
5	11490.00	60.0 PK	74.0	-14.0	1.66 V	122	42.0	18.0
6	11490.00	47.5 AV	54.0	-6.5	1.66 V	122	29.5	18.0

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

RF Mode	TX 802.11a	Channel	CH 157：5785 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	#5627.56	57.1 PK	68.2	-11.1	1.99 H	6	51.0	6.1
2	*5785.00	115.5 PK			1.99 H	6	109.4	6.1
3	*5785.00	105.4 AV			1.99 H	6	99.3	6.1
4	#5960.90	58.7 PK	68.2	-9.5	1.99 H	6	51.7	7.0
5	11570.00	60.3 PK	74.0	-13.7	1.60 H	355	42.7	17.6
6	11570.00	47.9 AV	54.0	-6.1	1.60 H	355	30.3	17.6
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	#5619.87	58.2 PK	68.2	-10.0	1.66 V	15	52.1	6.1
2	*5785.00	117.8 PK			1.66 V	15	75.9	41.9
3	*5785.00	107.2 AV			1.66 V	15	65.3	41.9
4	#5928.85	59.3 PK	68.2	-8.9	1.66 V	15	52.3	7.0
5	11570.00	60.0 PK	74.0	-14.0	1.88 V	129	42.4	17.6
6	11570.00	47.3 AV	54.0	-6.7	1.88 V	129	29.7	17.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 165：5825 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	#5612.82	57.2 PK	68.2	-11.0	2.02 H	342	51.1	6.1
2	*5825.00	116.0 PK			2.02 H	342	73.8	42.2
3	*5825.00	105.5 AV			2.02 H	342	63.3	42.2
4	#5960.90	58.1 PK	68.2	-10.1	2.02 H	342	51.1	7.0
5	11650.00	61.2 PK	74.0	-12.8	1.60 H	18	43.5	17.7
6	11650.00	48.2 AV	54.0	-5.8	1.60 H	18	30.5	17.7
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	#5639.74	57.8 PK	68.2	-10.4	1.71 V	12	51.6	6.2
2	*5825.00	117.8 PK			1.71 V	12	75.6	42.2
3	*5825.00	107.3 AV			1.71 V	12	65.1	42.2
4	#5935.90	59.2 PK	68.2	-9.0	1.71 V	12	52.2	7.0
5	11650.00	60.2 PK	74.0	-13.8	1.71 V	115	42.5	17.7
6	11650.00	48.0 AV	54.0	-6.0	1.71 V	115	30.3	17.7

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 (HE20)	Channel	CH 36：5180 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	65.0 PK	74.0	-9.0	1.22 H	263	58.5	6.5
2	5150.00	51.8 AV	54.0	-2.2	1.22 H	263	45.3	6.5
3	*5180.00	116.1 PK			1.27 H	255	74.0	42.1
4	*5180.00	102.0 AV			1.27 H	255	59.9	42.1
5	#10360.00	60.5 PK	68.2	-7.7	1.72 H	52	43.9	16.6
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	5150.00	67.0 PK	74.0	-7.0	1.82 V	281	60.5	6.5
2	5150.00	52.5 AV	54.0	-1.5	1.82 V	281	46.0	6.5
3	*5180.00	117.8 PK			1.79 V	278	75.7	42.1
4	*5180.00	103.9 AV			1.79 V	278	61.8	42.1
5	#10360.00	60.2 PK	68.2	-8.0	2.48 V	15	43.6	16.6

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 40：5200 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	*5200.00	119.5 PK			1.22 H	263	77.4	42.1
2	*5200.00	106.2 AV			1.22 H	263	64.1	42.1
3	#10400.00	61.0 PK	68.2	-7.2	1.82 H	55	44.1	16.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	120.9 PK			1.88 V	293	78.8	42.1
2	*5200.00	107.8 AV			1.88 V	293	65.7	42.1
3	#10400.00	60.4 PK	68.2	-7.8	2.66 V	29	43.5	16.9

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 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	*5240.00	119.1 PK			1.33 H	261	77.2	41.9
2	*5240.00	107.4 AV			1.33 H	261	65.5	41.9
3	5350.00	61.3 PK	74.0	-12.7	1.36 H	263	55.0	6.3
4	5350.00	49.8 AV	54.0	-4.2	1.36 H	263	43.5	6.3
5	#10480.00	61.1 PK	68.2	-7.1	1.66 H	58	43.6	17.5
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	*5240.00	121.1 PK			1.80 V	16	79.2	41.9
2	*5240.00	108.0 AV			1.80 V	16	66.1	41.9
3	5350.00	57.0 PK	74.0	-17.0	1.82 V	22	50.7	6.3
4	5350.00	44.0 AV	54.0	-10.0	1.82 V	22	37.7	6.3
5	#10480.00	60.5 PK	68.2	-7.7	2.66 V	30	43.0	17.5

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	59.2 PK	74.0	-14.8	2.20 H	331	52.7	6.5
2	5150.00	45.2 AV	54.0	-8.8	2.20 H	331	38.7	6.5
3	*5260.00	120.3 PK			2.24 H	320	78.5	41.8
4	*5260.00	107.3 AV			2.24 H	320	65.5	41.8
5	#10520.00	59.9 PK	68.2	-8.3	1.95 H	166	42.5	17.4
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	5150.00	59.2 PK	74.0	-14.8	1.75 V	22	52.7	6.5
2	5150.00	45.2 AV	54.0	-8.8	1.75 V	22	38.7	6.5
3	*5260.00	122.3 PK			1.69 V	19	80.5	41.8
4	*5260.00	108.8 AV			1.69 V	19	67.0	41.8
5	#10520.00	58.8 PK	68.2	-9.4	2.11 V	213	41.4	17.4

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.

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	121.1 PK			2.36 H	314	79.2	41.9
2	*5300.00	107.8 AV			2.36 H	314	65.9	41.9
3	10600.00	58.9 PK	74.0	-15.1	1.93 H	155	41.8	17.1
4	10600.00	45.5 AV	54.0	-8.5	1.93 H	155	28.4	17.1
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	*5300.00	122.2 PK			1.71 V	20	80.3	41.9
2	*5300.00	108.7 AV			1.71 V	20	66.8	41.9
3	10600.00	59.1 PK	74.0	-14.9	2.17 V	202	42.0	17.1
4	10600.00	46.1 AV	54.0	-7.9	2.17 V	202	29.0	17.1

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.

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	119.5 PK			2.61 H	313	77.6	41.9
2	*5320.00	105.9 AV			2.61 H	313	64.0	41.9
3	5350.00	68.1 PK	74.0	-5.9	2.53 H	330	61.8	6.3
4	5350.00	50.8 AV	54.0	-3.2	2.53 H	330	44.5	6.3
5	10640.00	58.6 PK	74.0	-15.4	1.97 H	166	41.3	17.3
6	10640.00	45.3 AV	54.0	-8.7	1.97 H	166	28.0	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	121.0 PK			1.87 V	308	79.1	41.9
2	*5320.00	107.5 AV			1.87 V	308	65.6	41.9
3	5350.00	69.8 PK	74.0	-4.2	1.64 V	4	63.5	6.3
4	5350.00	52.3 AV	54.0	-1.7	1.64 V	4	46.0	6.3
5	10640.00	59.2 PK	74.0	-14.8	2.07 V	223	41.9	17.3
6	10640.00	45.9 AV	54.0	-8.1	2.07 V	223	28.6	17.3

Remarks:

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

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	58.0 PK	74.0	-16.0	1.29 H	288	51.8	6.2
2	5460.00	45.1 AV	54.0	-8.9	1.29 H	288	38.9	6.2
3	#5470.00	63.9 PK	68.2	-4.3	1.26 H	286	57.7	6.2
4	*5500.00	119.1 PK			1.24 H	283	77.2	41.9
5	*5500.00	105.7 AV			1.24 H	283	63.8	41.9
6	11000.00	60.4 PK	74.0	-13.6	2.11 H	168	42.0	18.4
7	11000.00	47.3 AV	54.0	-6.7	2.11 H	168	28.9	18.4
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	59.2 PK	74.0	-14.8	1.92 V	25	53.0	6.2
2	5460.00	46.2 AV	54.0	-7.8	1.92 V	25	40.0	6.2
3	**#5470.00**	**66.9 PK**	**68.2**	**-1.3**	**1.88 V**	**23**	**60.7**	**6.2**
4	*5500.00	119.4 PK			2.00 V	19	77.5	41.9
5	*5500.00	106.2 AV			2.00 V	19	64.3	41.9
6	11000.00	60.6 PK	74.0	-13.4	2.26 V	213	42.2	18.4
7	11000.00	47.5 AV	54.0	-6.5	2.26 V	213	29.1	18.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	119.5 PK			1.22 H	283	77.5	42.0
2	*5580.00	107.3 AV			1.22 H	283	65.3	42.0
3	11160.00	60.2 PK	74.0	-13.8	2.08 H	162	42.1	18.1
4	11160.00	47.2 AV	54.0	-6.8	2.08 H	162	29.1	18.1
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	*5580.00	121.5 PK			1.75 V	15	79.5	42.0
2	*5580.00	108.3 AV			1.75 V	15	66.3	42.0
3	11160.00	60.4 PK	74.0	-13.6	1.75 V	15	42.3	18.1
4	11160.00	47.1 AV	54.0	-6.9	1.75 V	15	29.0	18.1

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.

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	117.6 PK			1.12 H	283	75.5	42.1
2	*5700.00	103.9 AV			1.12 H	283	61.8	42.1
3	#5725.00	61.6 PK	68.2	-6.6	1.19 H	286	55.3	6.3
4	11400.00	59.7 PK	74.0	-14.3	2.11 H	167	42.1	17.6
5	11400.00	46.7 AV	54.0	-7.3	2.11 H	167	29.1	17.6
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	118.6 PK			1.76 V	14	76.5	42.1
2	*5700.00	105.0 AV			1.76 V	14	62.9	42.1
3	#5725.00	66.6 PK	68.2	-1.6	1.79 V	15	60.3	6.3
4	11400.00	59.9 PK	74.0	-14.1	2.09 V	226	42.3	17.6
5	11400.00	46.6 AV	54.0	-7.4	2.09 V	226	29.0	17.6

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 149：5745 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	#5619.87	57.8 PK	68.2	-10.4	2.16 H	30	51.7	6.1
2	*5745.00	118.0 PK			2.16 H	30	76.0	42.0
3	*5745.00	104.5 AV			2.16 H	30	62.5	42.0
4	#5983.33	58.9 PK	68.2	-9.3	2.16 H	30	52.0	6.9
5	11490.00	61.1 PK	74.0	-12.9	1.58 H	22	43.1	18.0
6	11490.00	47.8 AV	54.0	-6.2	1.58 H	22	29.8	18.0
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	#5630.13	56.9 PK	68.2	-11.3	1.77 V	13	50.8	6.1
2	*5745.00	119.7 PK			1.77 V	13	77.7	42.0
3	*5745.00	106.2 AV			1.77 V	13	64.2	42.0
4	#5959.62	58.5 PK	68.2	-9.7	1.77 V	13	51.5	7.0
5	11490.00	61.0 PK	74.0	-13.0	1.88 V	133	43.0	18.0
6	11490.00	47.6 AV	54.0	-6.4	1.88 V	133	29.6	18.0

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 157：5785 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	#5601.92	57.3 PK	68.2	-10.9	2.20 H	30	51.2	6.1
2	*5785.00	118.5 PK			2.20 H	30	76.6	41.9
3	*5785.00	105.0 AV			2.20 H	30	63.1	41.9
4	#5941.67	58.8 PK	68.2	-9.4	2.20 H	30	51.8	7.0
5	11570.00	60.5 PK	74.0	-13.5	1.66 H	23	42.9	17.6
6	11570.00	48.0 AV	54.0	-6.0	1.66 H	23	30.4	17.6
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	#5608.33	58.3 PK	68.2	-9.9	1.66 V	13	52.2	6.1
2	*5785.00	119.6 PK			1.66 V	13	77.7	41.9
3	*5785.00	106.2 AV			1.66 V	13	64.3	41.9
4	#5958.33	57.3 PK	68.2	-10.9	1.66 V	13	50.3	7.0
5	11570.00	60.0 PK	74.0	-14.0	1.82 V	133	42.4	17.6
6	11570.00	47.6 AV	54.0	-6.4	1.82 V	133	30.0	17.6

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 165：5825 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	#5619.87	57.8 PK	68.2	-10.4	2.23 H	31	51.7	6.1
2	*5825.00	118.0 PK			2.23 H	31	75.8	42.2
3	*5825.00	105.0 AV			2.23 H	31	62.8	42.2
4	#5980.77	58.7 PK	68.2	-9.5	2.23 H	31	51.8	6.9
5	11650.00	61.0 PK	74.0	-13.0	1.73 H	16	43.3	17.7
6	11650.00	47.8 AV	54.0	-6.2	1.73 H	16	30.1	17.7
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	#5625.64	58.1 PK	68.2	-10.1	1.71 V	15	52.0	6.1
2	*5825.00	119.7 PK			1.71 V	15	77.5	42.2
3	*5825.00	106.0 AV			1.71 V	15	63.8	42.2
4	#5936.54	58.4 PK	68.2	-9.8	1.71 V	15	51.4	7.0
5	11650.00	60.5 PK	74.0	-13.5	1.66 V	129	42.8	17.7
6	11650.00	47.7 AV	54.0	-6.3	1.66 V	129	30.0	17.7

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 (HE40)	Channel	CH 38：5190 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	68.8 PK	74.0	-5.2	1.33 H	262	62.3	6.5
2	5150.00	51.7 AV	54.0	-2.3	1.33 H	262	45.2	6.5
3	*5190.00	113.5 PK			1.22 H	254	71.4	42.1
4	*5190.00	100.6 AV			1.22 H	254	58.5	42.1
5	#10380.00	61.5 PK	68.2	-6.7	1.77 H	55	44.7	16.8
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	5150.00	71.0 PK	74.0	-3.0	1.75 V	281	64.5	6.5
2	5150.00	52.5 AV	54.0	-1.5	1.75 V	281	46.0	6.5
3	*5190.00	115.3 PK			1.79 V	277	73.2	42.1
4	*5190.00	101.7 AV			1.79 V	277	59.6	42.1
5	#10380.00	60.5 PK	68.2	-7.7	2.20 V	11	43.7	16.8

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 46：5230 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	67.0 PK	74.0	-7.0	1.32 H	269	60.5	6.5
2	5150.00	51.9 AV	54.0	-2.1	1.32 H	269	45.4	6.5
3	*5230.00	115.5 PK			1.28 H	251	73.6	41.9
4	*5230.00	102.0 AV			1.28 H	251	60.1	41.9
5	#10460.00	61.1 PK	68.2	-7.1	1.58 H	49	43.8	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.3 PK	74.0	-4.7	1.82 V	283	62.8	6.5
2	5150.00	52.5 AV	54.0	-1.5	1.82 V	283	46.0	6.5
3	*5230.00	117.0 PK			1.80 V	278	75.1	41.9
4	*5230.00	103.5 AV			1.80 V	278	61.6	41.9
5	#10460.00	60.3 PK	68.2	-7.9	2.31 V	13	43.0	17.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	*5270.00	116.9 PK			1.20 H	284	75.0	41.9
2	*5270.00	103.8 AV			1.20 H	284	61.9	41.9
3	5350.00	61.3 PK	74.0	-12.7	1.25 H	290	55.0	6.3
4	5350.00	46.9 AV	54.0	-7.1	1.25 H	290	40.6	6.3
5	#10540.00	59.6 PK	68.2	-8.6	2.12 H	165	42.1	17.5
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	*5270.00	118.4 PK			1.80 V	17	76.5	41.9
2	*5270.00	104.9 AV			1.80 V	17	63.0	41.9
3	5350.00	65.7 PK	74.0	-8.3	1.78 V	14	59.4	6.3
4	5350.00	50.2 AV	54.0	-3.8	1.78 V	14	43.9	6.3
5	#10540.00	59.8 PK	68.2	-8.4	2.32 V	228	42.3	17.5

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 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	115.7 PK			1.19 H	284	73.8	41.9
2	*5310.00	102.4 AV			1.19 H	284	60.5	41.9
3	5350.00	68.9 PK	74.0	-5.1	1.23 H	286	62.6	6.3
4	5350.00	49.3 AV	54.0	-4.7	1.23 H	286	43.0	6.3
5	10620.00	59.4 PK	74.0	-14.6	2.11 H	158	42.1	17.3
6	10620.00	46.3 AV	54.0	-7.7	2.11 H	158	29.0	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	116.0 PK			1.77 V	11	74.1	41.9
2	*5310.00	103.1 AV			1.77 V	11	61.2	41.9
3	5350.00	66.0 PK	74.0	-8.0	1.74 V	28	59.7	6.3
4	5350.00	52.3 AV	54.0	-1.7	1.74 V	28	46.0	6.3
5	10620.00	59.5 PK	74.0	-14.5	2.02 V	215	42.2	17.3
6	10620.00	46.3 AV	54.0	-7.7	2.02 V	215	29.0	17.3

Remarks:

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

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	1.21 H	285	53.2	6.2
2	5460.00	45.1 AV	54.0	-8.9	1.21 H	285	38.9	6.2
3	#5470.00	62.7 PK	68.2	-5.5	1.25 H	288	56.5	6.2
4	*5510.00	114.4 PK			1.22 H	283	72.5	41.9
5	*5510.00	101.7 AV			1.22 H	283	59.8	41.9
6	11020.00	60.3 PK	74.0	-13.7	2.08 H	162	42.0	18.3
7	11020.00	47.2 AV	54.0	-6.8	2.08 H	162	28.9	18.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.5 PK	74.0	-15.5	1.95 V	23	52.3	6.2
2	5460.00	44.7 AV	54.0	-9.3	1.95 V	23	38.5	6.2
3	#5470.00	66.5 PK	68.2	-1.7	1.93 V	21	60.3	6.2
4	*5510.00	114.6 PK			1.77 V	20	72.7	41.9
5	*5510.00	102.1 AV			1.77 V	20	60.2	41.9
6	11020.00	60.6 PK	74.0	-13.4	2.02 V	231	42.3	18.3
7	11020.00	47.4 AV	54.0	-6.6	2.02 V	231	29.1	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	117.2 PK			1.26 H	283	75.2	42.0
2	*5550.00	104.6 AV			1.26 H	283	62.6	42.0
3	11100.00	60.1 PK	74.0	-13.9	2.11 H	167	42.2	17.9
4	11100.00	47.0 AV	54.0	-7.0	2.11 H	167	29.1	17.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	118.0 PK			1.80 V	16	76.0	42.0
2	*5550.00	104.7 AV			1.80 V	16	62.7	42.0
3	11100.00	60.2 PK	74.0	-13.8	2.21 V	219	42.3	17.9
4	11100.00	47.0 AV	54.0	-7.0	2.21 V	219	29.1	17.9

Remarks:

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

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	114.5 PK			1.19 H	280	72.4	42.1
2	*5670.00	102.0 AV			1.19 H	280	59.9	42.1
3	#5725.00	63.1 PK	68.2	-5.1	1.22 H	287	56.8	6.3
4	11340.00	59.9 PK	74.0	-14.1	2.09 H	163	42.1	17.8
5	11340.00	46.9 AV	54.0	-7.1	2.09 H	163	29.1	17.8
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	*5670.00	115.9 PK			1.80 V	15	73.8	42.1
2	*5670.00	102.9 AV			1.80 V	15	60.8	42.1
3	#5725.00	66.6 PK	68.2	-1.6	1.56 V	15	60.3	6.3
4	11340.00	60.1 PK	74.0	-13.9	2.05 V	218	42.3	17.8
5	11340.00	46.8 AV	54.0	-7.2	2.05 V	218	29.0	17.8

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 151：5755 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	#5609.62	58.1 PK	68.2	-10.1	2.19 H	30	52.0	6.1
2	*5755.00	115.8 PK			2.19 H	30	73.8	42.0
3	*5755.00	102.5 AV			2.19 H	30	60.5	42.0
4	#5939.10	59.5 PK	68.2	-8.7	2.19 H	30	52.5	7.0
5	11510.00	60.6 PK	74.0	-13.4	1.63 H	10	42.7	17.9
6	11510.00	48.1 AV	54.0	-5.9	1.63 H	10	30.2	17.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.87	58.6 PK	68.2	-9.6	1.71 V	13	52.4	6.2
2	*5755.00	117.3 PK			1.71 V	13	75.3	42.0
3	*5755.00	104.1 AV			1.71 V	13	62.1	42.0
4	#5963.46	57.4 PK	68.2	-10.8	1.71 V	13	50.4	7.0
5	11510.00	60.5 PK	74.0	-13.5	1.77 V	118	42.6	17.9
6	11510.00	47.5 AV	54.0	-6.5	1.77 V	118	29.6	17.9

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 159：5795 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	#5645.51	57.0 PK	68.2	-11.2	2.13 H	33	50.8	6.2
2	*5795.00	115.5 PK			2.13 H	33	73.5	42.0
3	*5795.00	103.0 AV			2.13 H	33	61.0	42.0
4	#5934.62	58.9 PK	68.2	-9.3	2.13 H	33	51.9	7.0
5	11590.00	60.5 PK	74.0	-13.5	1.72 H	22	43.0	17.5
6	11590.00	48.1 AV	54.0	-5.9	1.72 H	22	30.6	17.5
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	#5616.03	58.3 PK	68.2	-9.9	1.66 V	12	52.2	6.1
2	*5795.00	117.4 PK			1.66 V	12	75.4	42.0
3	*5795.00	104.3 AV			1.66 V	12	62.3	42.0
4	#5930.77	60.2 PK	68.2	-8.0	1.66 V	12	53.2	7.0
5	11590.00	60.3 PK	74.0	-13.7	1.63 V	130	42.8	17.5
6	11590.00	47.5 AV	54.0	-6.5	1.63 V	130	30.0	17.5

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 (HE80)	Channel	CH 42：5210 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	70.0 PK	74.0	-4.0	1.33 H	90	63.5	6.5
2	5150.00	51.7 AV	54.0	-2.3	1.33 H	90	45.2	6.5
3	*5210.00	110.5 PK			1.22 H	263	68.5	42.0
4	*5210.00	97.3 AV			1.22 H	263	55.3	42.0
5	5350.00	62.3 PK	74.0	-11.7	1.39 H	88	56.0	6.3
6	5350.00	47.0 AV	54.0	-7.0	1.39 H	88	40.7	6.3
7	#10420.00	60.5 PK	68.2	-7.7	1.79 H	58	43.3	17.2
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	71.0 PK	74.0	-3.0	1.90 V	26	64.5	6.5
2	5150.00	52.6 AV	54.0	-1.4	1.90 V	26	46.1	6.5
3	*5210.00	111.7 PK			1.87 V	29	69.7	42.0
4	*5210.00	99.0 AV			1.87 V	29	57.0	42.0
5	5350.00	65.0 PK	74.0	-9.0	1.93 V	33	58.7	6.3
6	5350.00	48.1 AV	54.0	-5.9	1.93 V	33	41.8	6.3
7	#10420.00	60.0 PK	68.2	-8.2	2.26 V	30	42.8	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	58.4 PK	74.0	-15.6	1.22 H	281	51.9	6.5
2	5150.00	45.6 AV	54.0	-8.4	1.22 H	281	39.1	6.5
3	*5290.00	111.3 PK			1.19 H	284	69.4	41.9
4	*5290.00	98.6 AV			1.19 H	284	56.7	41.9
5	5350.00	70.7 PK	74.0	-3.3	1.23 H	286	64.4	6.3
6	5350.00	50.3 AV	54.0	-3.7	1.23 H	286	44.0	6.3
7	#10580.00	59.4 PK	68.2	-8.8	2.11 H	163	42.1	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.9 PK	74.0	-16.1	1.68 V	19	51.4	6.5
2	5150.00	45.7 AV	54.0	-8.3	1.68 V	19	39.2	6.5
3	*5290.00	112.2 PK			1.84 V	20	70.3	41.9
4	*5290.00	99.2 AV			1.84 V	20	57.3	41.9
5	**5350.00**	**72.7 PK**	**74.0**	**-1.3**	**1.64 V**	**15**	**66.4**	**6.3**
6	5350.00	51.1 AV	54.0	-2.9	1.64 V	15	44.8	6.3
7	#10580.00	59.6 PK	68.2	-8.6	2.09 V	227	42.3	17.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	5460.00	61.3 PK	74.0	-12.7	1.22 H	285	55.1	6.2
2	5460.00	45.4 AV	54.0	-8.6	1.22 H	285	39.2	6.2
3	#5470.00	65.3 PK	68.2	-2.9	1.27 H	289	59.1	6.2
4	*5530.00	111.3 PK			1.25 H	283	69.3	42.0
5	*5530.00	98.6 AV			1.25 H	283	56.6	42.0
6	#5725.00	57.8 PK	68.2	-10.4	1.29 H	288	51.5	6.3
7	11060.00	60.2 PK	74.0	-13.8	2.11 H	163	42.1	18.1
8	11060.00	47.1 AV	54.0	-6.9	2.11 H	163	29.0	18.1
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	5460.00	60.4 PK	74.0	-13.6	1.70 V	25	54.2	6.2
2	5460.00	45.5 AV	54.0	-8.5	1.70 V	25	39.3	6.2
3	#5470.00	66.7 PK	68.2	-1.5	1.73 V	21	60.5	6.2
4	*5530.00	112.1 PK			1.86 V	19	70.1	42.0
5	*5530.00	98.9 AV			1.86 V	19	56.9	42.0
6	#5725.00	57.8 PK	68.2	-10.4	1.76 V	30	51.5	6.3
7	11060.00	60.4 PK	74.0	-13.6	1.98 V	209	42.3	18.1
8	11060.00	47.2 AV	54.0	-6.8	1.98 V	209	29.1	18.1

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 (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	58.2 PK	74.0	-15.8	1.18 H	287	52.0	6.2
2	5460.00	45.2 AV	54.0	-8.8	1.18 H	287	39.0	6.2
3	#5470.00	59.1 PK	68.2	-9.1	1.20 H	288	52.9	6.2
4	*5610.00	112.9 PK			1.28 H	283	70.9	42.0
5	*5610.00	100.4 AV			1.28 H	283	58.4	42.0
6	#5725.00	62.0 PK	68.2	-6.2	1.13 H	290	55.7	6.3
7	11220.00	60.3 PK	74.0	-13.7	2.06 H	158	42.2	18.1
8	11220.00	47.1 AV	54.0	-6.9	2.06 H	158	29.0	18.1
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	5460.00	58.4 PK	74.0	-15.6	1.82 V	22	52.2	6.2
2	5460.00	46.6 AV	54.0	-7.4	1.82 V	22	40.4	6.2
3	#5470.00	60.9 PK	68.2	-7.3	1.78 V	20	54.7	6.2
4	*5610.00	113.5 PK			1.82 V	18	71.5	42.0
5	*5610.00	100.5 AV			1.82 V	18	58.5	42.0
6	#5725.00	66.6 PK	68.2	-1.6	1.66 V	16	60.3	6.3
7	11220.00	60.5 PK	74.0	-13.5	2.11 V	219	42.4	18.1
8	11220.00	47.3 AV	54.0	-6.7	2.11 V	219	29.2	18.1

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 (HE80)	Channel	CH 155：5775 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	#5648.08	60.7 PK	68.2	-7.5	2.05 H	30	54.5	6.2
2	#5650.00	65.0 PK	68.2	-3.2	2.11 H	32	58.9	6.1
3	*5775.00	109.2 PK			2.05 H	30	67.2	42.0
4	*5775.00	96.8 AV			2.05 H	30	54.8	42.0
5	#5925.00	63.1 PK	68.2	-5.1	2.01 H	25	56.1	7.0
6	#5944.87	60.6 PK	68.2	-7.6	2.05 H	30	53.6	7.0
7	11550.00	60.0 PK	74.0	-14.0	1.66 H	33	42.2	17.8
8	11550.00	47.6 AV	54.0	-6.4	1.66 H	33	29.8	17.8
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	#5646.79	60.7 PK	68.2	-7.5	1.72 V	14	54.5	6.2
2	#5650.00	66.8 PK	68.2	-1.4	1.80 V	16	60.7	6.1
3	*5775.00	112.0 PK			1.72 V	14	70.0	42.0
4	*5775.00	99.2 AV			1.72 V	14	57.2	42.0
5	#5925.00	65.3 PK	68.2	-2.9	1.82 V	20	58.3	7.0
6	#5933.33	59.5 PK	68.2	-8.7	1.72 V	14	52.5	7.0
7	11550.00	60.1 PK	74.0	-13.9	1.44 V	349	42.3	17.8
8	11550.00	47.5 AV	54.0	-6.5	1.44 V	349	29.7	17.8

Remarks:

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

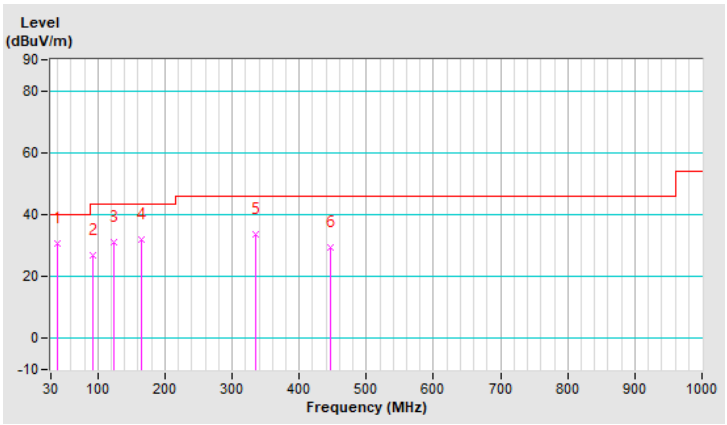
Below 1GHz Worst-Case Data:

RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.84	30.6 QP	40.0	-9.4	1.99 H	112	40.2	-9.6
2	93.26	26.9 QP	43.5	-16.6	1.99 H	112	41.0	-14.1
3	124.19	31.0 QP	43.5	-12.5	1.49 H	106	41.5	-10.5
4	164.96	32.1 QP	43.5	-11.4	1.49 H	112	40.6	-8.5
5	335.06	33.6 QP	46.0	-12.4	1.00 H	263	39.4	-5.8
6	447.52	29.5 QP	46.0	-16.5	1.49 H	218	32.9	-3.4

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. 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.

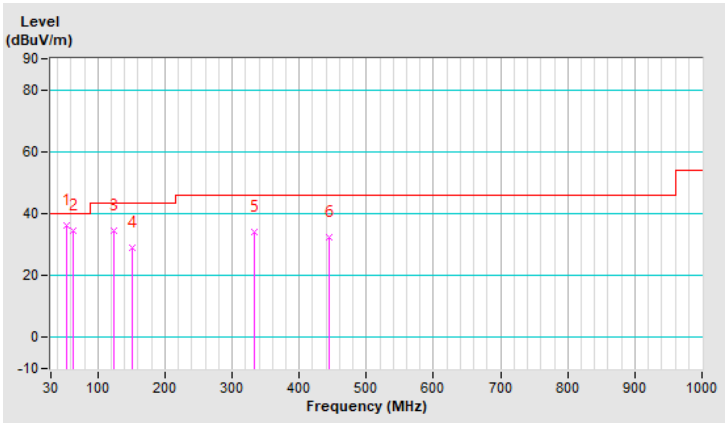


RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	52.49	36.1 QP	40.0	-3.9	1.51 V	13	45.1	-9.0
2	63.74	34.5 QP	40.0	-5.5	1.01 V	302	44.1	-9.6
3	124.19	34.6 QP	43.5	-8.9	1.01 V	219	45.1	-10.5
4	150.90	29.0 QP	43.5	-14.5	1.01 V	0	37.5	-8.5
5	332.25	34.0 QP	46.0	-12.0	1.51 V	150	39.9	-5.9
6	444.71	32.3 QP	46.0	-13.7	1.01 V	146	35.7	-3.4

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. 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.

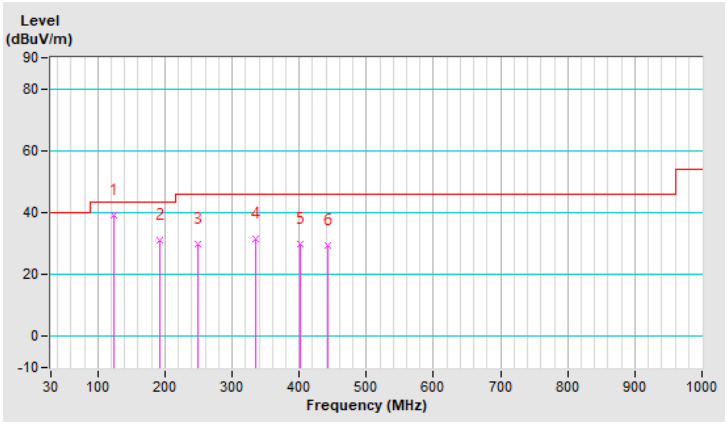


RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	124.19	39.3 QP	43.5	-4.2	1.50 H	250	49.8	-10.5
2	193.07	30.9 QP	43.5	-12.6	1.00 H	271	42.0	-11.1
3	249.30	29.8 QP	46.0	-16.2	1.00 H	237	38.6	-8.8
4	335.06	31.6 QP	46.0	-14.4	1.00 H	254	37.4	-5.8
5	402.54	29.7 QP	46.0	-16.3	1.00 H	132	34.4	-4.7
6	441.90	29.4 QP	46.0	-16.6	2.00 H	241	32.9	-3.5

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.

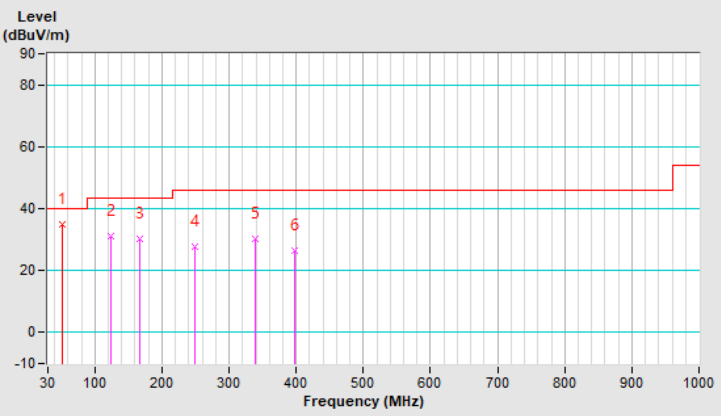


RF Mode	TX 802.11ax (HE20)	Channel	CH 48：5240 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Test Mode	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	50.83	34.8 QP	40.0	-5.2	1.00 V	14	43.8	-9.0
2	124.19	31.3 QP	43.5	-12.2	2.00 V	62	41.8	-10.5
3	167.77	30.3 QP	43.5	-13.2	1.00 V	146	38.9	-8.6
4	249.30	27.6 QP	46.0	-18.4	1.00 V	315	36.4	-8.8
5	339.28	30.4 QP	46.0	-15.6	1.49 V	130	36.3	-5.9
6	398.32	26.6 QP	46.0	-19.4	1.49 V	166	31.3	-4.7

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. 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	ESR3	102412	Feb. 17, 2020	Feb. 16, 2021
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2020	Sep. 03, 2021
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 20, 2020	Jan. 19, 2021
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 18, 2020	Aug. 17, 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 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.

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.

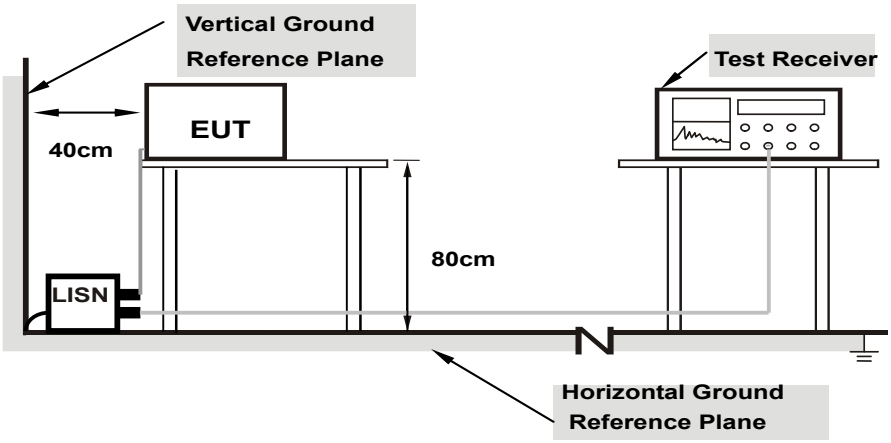
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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:

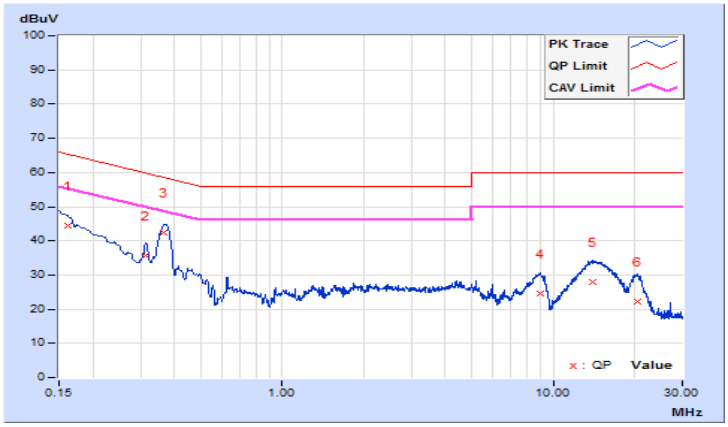
802.11ax (HE20)

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	0.16125	10.10	34.47	22.32	44.57	32.42	65.40	55.40	-20.83	-22.98
2	0.31387	10.17	25.50	22.55	35.67	32.72	59.87	49.87	-24.20	-17.15
3	0.36388	10.18	32.25	22.96	42.43	33.14	58.64	48.64	-16.21	-15.50
4	8.92275	10.45	14.27	9.51	24.72	19.96	60.00	50.00	-35.28	-30.04
5	14.05948	10.53	17.50	11.71	28.03	22.24	60.00	50.00	-31.97	-27.76
6	20.37525	10.61	11.76	5.53	22.37	16.14	60.00	50.00	-37.63	-33.86

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.

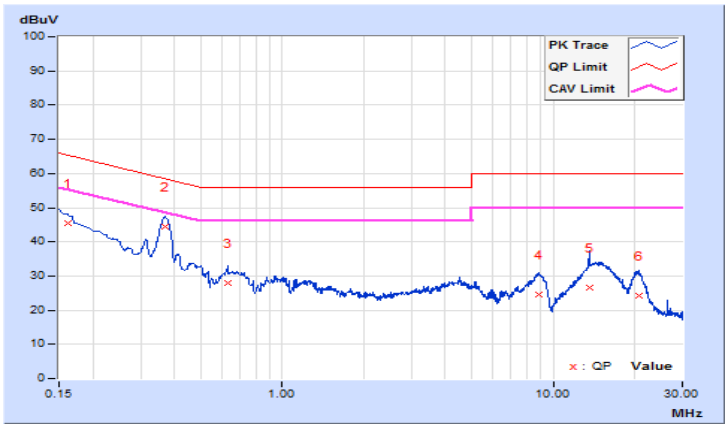


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

No	Freq.	Corr. Factor	Reading Value		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	0.16125	10.07	35.25	23.19	45.32	33.26	65.40	55.40	-20.08	-22.14
2	0.36775	10.17	34.37	25.41	44.54	35.58	58.55	48.55	-14.01	-12.97
3	0.62853	10.21	17.67	12.25	27.88	22.46	56.00	46.00	-28.12	-23.54
4	8.87775	10.55	14.15	9.44	24.70	19.99	60.00	50.00	-35.30	-30.01
5	13.56000	10.68	16.06	10.40	26.74	21.08	60.00	50.00	-33.26	-28.92
6	20.66100	10.86	13.29	7.03	24.15	17.89	60.00	50.00	-35.85	-32.11

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.

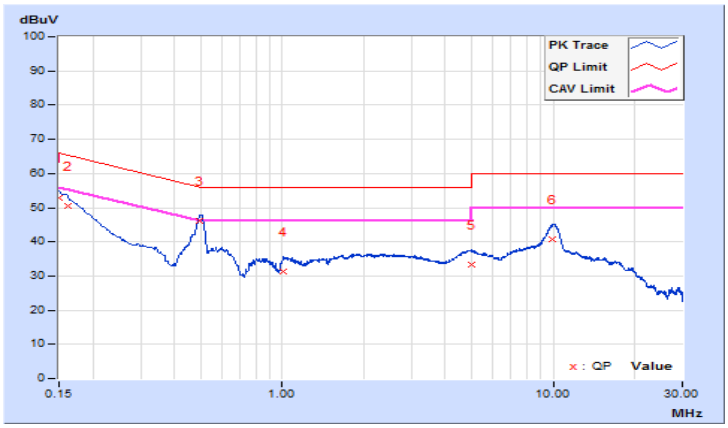


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

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	0.15000	10.09	42.85	27.16	52.94	37.25	66.00	56.00	-13.06	-18.75
2	0.16125	10.09	40.52	23.60	50.61	33.69	65.40	55.40	-14.79	-21.71
3	**0.49822**	**10.11**	**36.17**	**31.62**	**46.28**	**41.73**	**56.03**	**46.03**	**-9.75**	**-4.30**
4	1.01095	10.15	21.27	16.48	31.42	26.63	56.00	46.00	-24.58	-19.37
5	4.99200	10.24	23.23	17.90	33.47	28.14	56.00	46.00	-22.53	-17.86
6	9.93525	10.30	30.39	25.23	40.69	35.53	60.00	50.00	-19.31	-14.47

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.

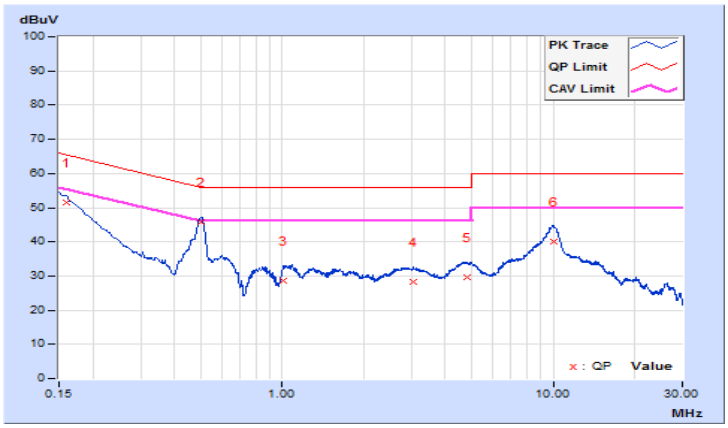


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

No	Freq.	Corr. Factor	Reading Value		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	0.15900	10.06	41.32	23.27	51.38	33.33	65.52	55.52	-14.14	-22.19
2	0.49953	10.09	35.60	31.04	45.69	41.13	56.01	46.01	-10.32	-4.88
3	1.00950	10.13	18.48	12.86	28.61	22.99	56.00	46.00	-27.39	-23.01
4	3.06375	10.19	18.12	12.60	28.31	22.79	56.00	46.00	-27.69	-23.21
5	4.79625	10.25	19.28	13.09	29.53	23.34	56.00	46.00	-26.47	-22.66
6	10.01850	10.39	29.84	24.51	40.23	34.90	60.00	50.00	-19.77	-15.10

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

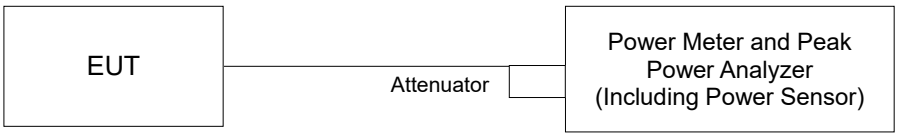
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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 $N_{ANT} \geq 5$.

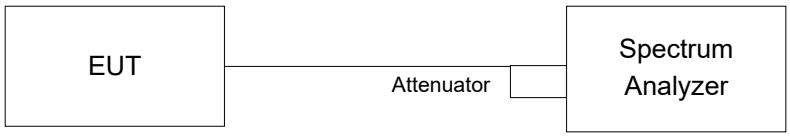
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

For Power Output



For 26dB Bandwidth



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 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				
36	5180	20.14	19.86	200.104	23.01	30.00	Pass
40	5200	22.23	21.98	324.870	25.12	30.00	Pass
48	5240	22.06	22.12	323.624	25.10	30.00	Pass
52	5260	20.81	20.78	240.178	23.81	24.00	Pass
60	5300	20.73	20.77	237.703	23.76	24.00	Pass
64	5320	20.45	20.51	223.378	23.49	24.00	Pass
100	5500	20.81	20.56	234.266	23.70	24.00	Pass
116	5580	20.72	20.51	230.493	23.63	24.00	Pass
140	5700	19.34	18.92	163.884	22.15	24.00	Pass
149	5745	21.31	21.06	262.851	24.20	30.00	Pass
157	5785	21.26	21.09	262.188	24.19	30.00	Pass
165	5825	21.23	21.05	260.090	24.15	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (20.74) = 24.16 > 24dBm
2. 11dBm + 10log (20.79) = 24.17 > 24dBm
3. 11dBm + 10log (20.71) = 24.16 > 24dBm
4. 11dBm + 10log (20.83) = 24.18 > 24dBm
5. 11dBm + 10log (20.90) = 24.20 > 24dBm
6. 11dBm + 10log (20.62) = 24.14 > 24dBm

Chain 1
1. 11dBm + 10log (20.84) = 24.18 > 24dBm
2. 11dBm + 10log (21.02) = 24.22 > 24dBm
3. 11dBm + 10log (20.75) = 24.17 > 24dBm
4. 11dBm + 10log (20.86) = 24.19 > 24dBm
5. 11dBm + 10log (20.88) = 24.19 > 24dBm
6. 11dBm + 10log (20.82) = 24.18 > 24dBm

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	20.21	20.09	207.048	23.16	30.00	Pass
40	5200	20.07	21.91	256.864	24.10	30.00	Pass
48	5240	22.17	22.03	324.404	25.11	30.00	Pass
52	5260	20.47	20.75	230.280	23.62	24.00	Pass
60	5300	20.53	20.63	228.591	23.59	24.00	Pass
64	5320	20.02	20.23	205.900	23.14	24.00	Pass
100	5500	20.41	20.08	211.760	23.26	24.00	Pass
116	5580	20.73	20.41	228.205	23.58	24.00	Pass
140	5700	18.85	18.32	144.657	21.60	24.00	Pass
149	5745	21.06	20.86	249.543	23.97	30.00	Pass
157	5785	21.22	20.81	252.938	24.03	30.00	Pass
165	5825	21.40	20.90	261.065	24.17	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (22.08) = 24.43 > 24dBm
2. 11dBm + 10log (22.52) = 24.52 > 24dBm
3. 11dBm + 10log (21.52) = 24.32 > 24dBm
4. 11dBm + 10log (22.17) = 24.45 > 24dBm
5. 11dBm + 10log (22.43) = 24.50 > 24dBm
6. 11dBm + 10log (21.44) = 24.31 > 24dBm

Chain 1
1. 11dBm + 10log (22.50) = 24.52 > 24dBm
2. 11dBm + 10log (22.24) = 24.47 > 24dBm
3. 11dBm + 10log (21.75) = 24.37 > 24dBm
4. 11dBm + 10log (21.58) = 24.34 > 24dBm
5. 11dBm + 10log (21.90) = 24.40 > 24dBm
6. 11dBm + 10log (21.47) = 24.31 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	19.80	19.30	180.613	22.57	30.00	Pass
46	5230	20.57	20.36	222.668	23.48	30.00	Pass
54	5270	20.73	20.87	240.484	23.81	24.00	Pass
62	5310	18.74	19.15	157.041	21.96	24.00	Pass
102	5510	19.07	18.73	155.368	21.91	24.00	Pass
110	5550	20.68	20.60	231.765	23.65	24.00	Pass
134	5670	19.03	18.61	152.594	21.84	24.00	Pass
151	5755	21.48	21.20	272.430	24.35	30.00	Pass
159	5795	21.66	21.26	280.214	24.47	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (42.65) = 27.29 > 24dBm
2. 11dBm + 10log (42.22) = 27.25 > 24dBm
3. 11dBm + 10log (42.19) = 27.25 > 24dBm
4. 11dBm + 10log (42.34) = 27.26 > 24dBm
5. 11dBm + 10log (42.22) = 27.25 > 24dBm

Chain 1
1. 11dBm + 10log (43.30) = 27.36 > 24dBm
2. 11dBm + 10log (42.19) = 27.25 > 24dBm
3. 11dBm + 10log (42.16) = 27.24 > 24dBm
4. 11dBm + 10log (42.44) = 27.27 > 24dBm
5. 11dBm + 10log (42.43) = 27.27 > 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				
36	5180	20.23	20.13	208.477	23.19	30.00	Pass
40	5200	22.11	21.94	318.870	25.04	30.00	Pass
48	5240	22.21	22.08	327.777	25.16	30.00	Pass
52	5260	20.50	20.80	232.428	23.66	24.00	Pass
60	5300	20.58	20.68	231.238	23.64	24.00	Pass
64	5320	20.06	20.27	207.805	23.18	24.00	Pass
100	5500	20.42	20.10	212.483	23.27	24.00	Pass
116	5580	20.77	20.43	229.807	23.61	24.00	Pass
140	5700	18.90	18.35	146.016	21.64	24.00	Pass
149	5745	21.09	20.90	251.556	24.01	30.00	Pass
157	5785	21.26	20.84	254.998	24.07	30.00	Pass
165	5825	21.42	20.93	262.555	24.19	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (22.08) = 24.43 > 24dBm
2. 11dBm + 10log (22.52) = 24.52 > 24dBm
3. 11dBm + 10log (21.52) = 24.32 > 24dBm
4. 11dBm + 10log (22.17) = 24.45 > 24dBm
5. 11dBm + 10log (22.43) = 24.50 > 24dBm
6. 11dBm + 10log (21.44) = 24.31 > 24dBm

Chain 1
1. 11dBm + 10log (22.50) = 24.52 > 24dBm
2. 11dBm + 10log (22.24) = 24.47 > 24dBm
3. 11dBm + 10log (21.75) = 24.37 > 24dBm
4. 11dBm + 10log (21.58) = 24.34 > 24dBm
5. 11dBm + 10log (21.90) = 24.40 > 24dBm
6. 11dBm + 10log (21.47) = 24.31 > 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				
38	5190	19.83	19.32	181.668	22.59	30.00	Pass
46	5230	20.61	20.40	224.728	23.52	30.00	Pass
54	5270	20.76	20.91	242.435	23.85	24.00	Pass
62	5310	18.78	19.17	158.113	21.99	24.00	Pass
102	5510	19.11	18.78	156.980	21.96	24.00	Pass
110	5550	20.70	20.62	232.835	23.67	24.00	Pass
134	5670	19.06	18.63	153.484	21.86	24.00	Pass
151	5755	21.51	21.23	274.319	24.38	30.00	Pass
159	5795	21.70	21.28	282.187	24.51	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (42.65) = 27.29 > 24dBm
2. 11dBm + 10log (42.22) = 27.25 > 24dBm
3. 11dBm + 10log (42.19) = 27.25 > 24dBm
4. 11dBm + 10log (42.34) = 27.26 > 24dBm
5. 11dBm + 10log (42.22) = 27.25 > 24dBm

Chain 1
1. 11dBm + 10log (43.30) = 27.36 > 24dBm
2. 11dBm + 10log (42.19) = 27.25 > 24dBm
3. 11dBm + 10log (42.16) = 27.24 > 24dBm
4. 11dBm + 10log (42.44) = 27.27 > 24dBm
5. 11dBm + 10log (42.43) = 27.27 > 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				
42	5210	18.72	18.83	150.857	21.79	30.00	Pass
58	5290	18.26	18.40	136.172	21.34	24.00	Pass
106	5530	18.44	18.34	138.057	21.40	24.00	Pass
122	5610	19.77	19.71	188.382	22.75	24.00	Pass
155	5775	19.42	19.00	166.931	22.23	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (82.74) = 30.17 > 24dBm
2. 11dBm + 10log (82.89) = 30.18 > 24dBm
3. 11dBm + 10log (82.85) = 30.18 > 24dBm

Chain 1
1. 11dBm + 10log (83.17) = 30.19 > 24dBm
2. 11dBm + 10log (83.09) = 30.19 > 24dBm
3. 11dBm + 10log (82.93) = 30.18 > 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				
36	5180	20.26	20.15	209.684	23.22	30.00	Pass
40	5200	22.15	21.97	321.457	25.07	30.00	Pass
48	5240	22.24	22.11	330.049	25.19	30.00	Pass
52	5260	20.52	20.83	233.780	23.69	24.00	Pass
60	5300	20.61	20.71	232.841	23.67	24.00	Pass
64	5320	20.08	20.29	208.765	23.20	24.00	Pass
100	5500	20.46	20.13	214.212	23.31	24.00	Pass
116	5580	20.79	20.45	230.867	23.63	24.00	Pass
140	5700	18.92	18.37	146.690	21.66	24.00	Pass
149	5745	21.12	20.93	253.299	24.04	30.00	Pass
157	5785	21.29	20.89	257.330	24.10	30.00	Pass
165	5825	21.46	20.96	264.697	24.23	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (22.08) = 24.43 > 24dBm
2. 11dBm + 10log (22.52) = 24.52 > 24dBm
3. 11dBm + 10log (21.52) = 24.32 > 24dBm
4. 11dBm + 10log (22.17) = 24.45 > 24dBm
5. 11dBm + 10log (22.43) = 24.50 > 24dBm
6. 11dBm + 10log (21.44) = 24.31 > 24dBm

Chain 1
1. 11dBm + 10log (22.50) = 24.52 > 24dBm
2. 11dBm + 10log (22.24) = 24.47 > 24dBm
3. 11dBm + 10log (21.75) = 24.37 > 24dBm
4. 11dBm + 10log (21.58) = 24.34 > 24dBm
5. 11dBm + 10log (21.90) = 24.40 > 24dBm
6. 11dBm + 10log (21.47) = 24.31 > 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				
38	5190	19.86	19.36	183.126	22.63	30.00	Pass
46	5230	20.64	20.43	226.286	23.55	30.00	Pass
54	5270	20.79	20.94	244.115	23.88	24.00	Pass
62	5310	18.82	19.21	159.576	22.03	24.00	Pass
102	5510	19.14	18.81	158.068	21.99	24.00	Pass
110	5550	20.73	20.66	234.717	23.71	24.00	Pass
134	5670	19.09	18.68	154.887	21.90	24.00	Pass
151	5755	21.54	21.27	276.528	24.42	30.00	Pass
159	5795	21.73	21.31	284.143	24.54	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (42.65) = 27.29 > 24dBm
2. 11dBm + 10log (42.22) = 27.25 > 24dBm
3. 11dBm + 10log (42.19) = 27.25 > 24dBm
4. 11dBm + 10log (42.34) = 27.26 > 24dBm
5. 11dBm + 10log (42.22) = 27.25 > 24dBm

Chain 1
1. 11dBm + 10log (43.30) = 27.36 > 24dBm
2. 11dBm + 10log (42.19) = 27.25 > 24dBm
3. 11dBm + 10log (42.16) = 27.24 > 24dBm
4. 11dBm + 10log (42.44) = 27.27 > 24dBm
5. 11dBm + 10log (42.43) = 27.27 > 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				
42	5210	18.75	18.87	152.080	21.82	30.00	Pass
58	5290	18.29	18.42	136.955	21.37	24.00	Pass
106	5530	18.49	18.37	139.339	21.44	24.00	Pass
122	5610	19.81	19.74	189.908	22.79	24.00	Pass
155	5775	19.45	19.03	168.088	22.26	30.00	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (82.74) = 30.17 > 24dBm
2. 11dBm + 10log (82.89) = 30.18 > 24dBm
3. 11dBm + 10log (82.85) = 30.18 > 24dBm

Chain 1
1. 11dBm + 10log (83.17) = 30.19 > 24dBm
2. 11dBm + 10log (83.09) = 30.19 > 24dBm
3. 11dBm + 10log (82.93) = 30.18 > 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				
36	5180	17.22	17.12	104.246	20.18	28.77	Pass
40	5200	19.10	18.93	159.446	22.03	28.77	Pass
48	5240	19.20	19.07	163.900	22.15	28.77	Pass
52	5260	17.49	17.79	116.222	20.65	22.77	Pass
60	5300	17.57	17.67	115.627	20.63	22.77	Pass
64	5320	17.05	17.26	103.910	20.17	22.77	Pass
100	5500	17.41	17.09	106.249	20.26	22.30	Pass
116	5580	17.76	17.42	114.911	20.60	22.30	Pass
140	5700	15.89	15.34	73.013	18.63	22.30	Pass
149	5745	18.08	17.89	125.786	21.00	28.72	Pass
157	5785	18.25	17.83	127.508	21.06	28.72	Pass
165	5825	18.41	17.92	131.287	21.18	28.72	Pass

Note:

1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (22.08) = 24.43 > 24dBm
2. 11dBm + 10log (22.52) = 24.52 > 24dBm
3. 11dBm + 10log (21.52) = 24.32 > 24dBm
4. 11dBm + 10log (22.17) = 24.45 > 24dBm
5. 11dBm + 10log (22.43) = 24.50 > 24dBm
6. 11dBm + 10log (21.44) = 24.31 > 24dBm

Chain 1

1. 11dBm + 10log (22.50) = 24.52 > 24dBm
2. 11dBm + 10log (22.24) = 24.47 > 24dBm
3. 11dBm + 10log (21.75) = 24.37 > 24dBm
4. 11dBm + 10log (21.58) = 24.34 > 24dBm
5. 11dBm + 10log (21.90) = 24.40 > 24dBm
6. 11dBm + 10log (21.47) = 24.31 > 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				
38	5190	16.82	16.31	90.840	19.58	28.77	Pass
46	5230	17.60	17.39	112.372	20.51	28.77	Pass
54	5270	17.75	17.90	121.226	20.84	22.77	Pass
62	5310	15.77	16.16	79.062	18.98	22.77	Pass
102	5510	16.10	15.77	78.495	18.95	22.30	Pass
110	5550	17.69	17.61	116.426	20.66	22.30	Pass
134	5670	16.05	15.62	76.747	18.85	22.30	Pass
151	5755	18.50	18.22	137.169	21.37	28.72	Pass
159	5795	18.69	18.27	141.103	21.50	28.72	Pass

Note:
1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (42.65) = 27.29 > 24dBm
2. 11dBm + 10log (42.22) = 27.25 > 24dBm
3. 11dBm + 10log (42.19) = 27.25 > 24dBm
4. 11dBm + 10log (42.34) = 27.26 > 24dBm
5. 11dBm + 10log (42.22) = 27.25 > 24dBm

Chain 1

1. 11dBm + 10log (43.30) = 27.36 > 24dBm
2. 11dBm + 10log (42.19) = 27.25 > 24dBm
3. 11dBm + 10log (42.16) = 27.24 > 24dBm
4. 11dBm + 10log (42.44) = 27.27 > 24dBm
5. 11dBm + 10log (42.43) = 27.27 > 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				
42	5210	15.71	15.82	75.434	18.78	28.77	Pass
58	5290	15.25	15.39	68.090	18.33	22.77	Pass
106	5530	15.43	15.33	69.033	18.39	22.30	Pass
122	5610	16.76	16.70	94.198	19.74	22.30	Pass
155	5775	16.41	15.99	83.471	19.22	28.72	Pass

Note:

1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (82.74) = 30.17 > 24dBm
2. 11dBm + 10log (82.89) = 30.18 > 24dBm
3. 11dBm + 10log (82.85) = 30.18 > 24dBm

Chain 1

1. 11dBm + 10log (83.17) = 30.19 > 24dBm
2. 11dBm + 10log (83.09) = 30.19 > 24dBm
3. 11dBm + 10log (82.93) = 30.18 > 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				
36	5180	17.25	17.14	104.849	20.21	28.77	Pass
40	5200	19.14	18.96	160.740	22.06	28.77	Pass
48	5240	19.23	19.10	165.036	22.18	28.77	Pass
52	5260	17.51	17.82	116.898	20.68	22.77	Pass
60	5300	17.60	17.70	116.428	20.66	22.77	Pass
64	5320	17.07	17.28	104.390	20.19	22.77	Pass
100	5500	17.45	17.12	107.113	20.30	22.30	Pass
116	5580	17.78	17.44	115.442	20.62	22.30	Pass
140	5700	15.91	15.36	73.350	18.65	22.30	Pass
149	5745	18.11	17.92	126.658	21.03	28.72	Pass
157	5785	18.28	17.88	128.674	21.09	28.72	Pass
165	5825	18.45	17.95	132.358	21.22	28.72	Pass

Note:
1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (22.08) = 24.43 > 24dBm
2. 11dBm + 10log (22.52) = 24.52 > 24dBm
3. 11dBm + 10log (21.52) = 24.32 > 24dBm
4. 11dBm + 10log (22.17) = 24.45 > 24dBm
5. 11dBm + 10log (22.43) = 24.50 > 24dBm
6. 11dBm + 10log (21.44) = 24.31 > 24dBm

Chain 1

1. 11dBm + 10log (22.50) = 24.52 > 24dBm
2. 11dBm + 10log (22.24) = 24.47 > 24dBm
3. 11dBm + 10log (21.75) = 24.37 > 24dBm
4. 11dBm + 10log (21.58) = 24.34 > 24dBm
5. 11dBm + 10log (21.90) = 24.40 > 24dBm
6. 11dBm + 10log (21.47) = 24.31 > 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				
38	5190	16.85	16.35	91.569	19.62	28.77	Pass
46	5230	17.63	17.42	113.151	20.54	28.77	Pass
54	5270	17.78	17.93	122.066	20.87	22.77	Pass
62	5310	15.81	16.20	79.794	19.02	22.77	Pass
102	5510	16.13	15.80	79.039	18.98	22.30	Pass
110	5550	17.72	17.65	117.366	20.70	22.30	Pass
134	5670	16.08	15.67	77.449	18.89	22.30	Pass
151	5755	18.53	18.26	138.274	21.41	28.72	Pass
159	5795	18.72	18.30	142.081	21.53	28.72	Pass

Note:
1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (42.65) = 27.29 > 24dBm
2. 11dBm + 10log (42.22) = 27.25 > 24dBm
3. 11dBm + 10log (42.19) = 27.25 > 24dBm
4. 11dBm + 10log (42.34) = 27.26 > 24dBm
5. 11dBm + 10log (42.22) = 27.25 > 24dBm

Chain 1
1. 11dBm + 10log (43.30) = 27.36 > 24dBm
2. 11dBm + 10log (42.19) = 27.25 > 24dBm
3. 11dBm + 10log (42.16) = 27.24 > 24dBm
4. 11dBm + 10log (42.44) = 27.27 > 24dBm
5. 11dBm + 10log (42.43) = 27.27 > 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				
42	5210	15.74	15.86	76.045	18.81	28.77	Pass
58	5290	15.28	15.41	68.482	18.36	22.77	Pass
106	5530	15.48	15.36	69.674	18.43	22.30	Pass
122	5610	16.80	16.73	94.961	19.78	22.30	Pass
155	5775	16.44	16.02	84.050	19.25	28.72	Pass

Note:
1. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 30 - (7.23 - 6) = 28.77dBm.
2. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power limit shall be reduced to 24 - (7.23 - 6) = 22.77dBm.
3. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power limit shall be reduced to 24 - (7.70 - 6) = 22.30dBm.
4. 5745-5825MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (82.74) = 30.17 > 24dBm
2. 11dBm + 10log (82.89) = 30.18 > 24dBm
3. 11dBm + 10log (82.85) = 30.18 > 24dBm

Chain 1

1. 11dBm + 10log (83.17) = 30.19 > 24dBm
2. 11dBm + 10log (83.09) = 30.19 > 24dBm
3. 11dBm + 10log (82.93) = 30.18 > 24dBm

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.74	20.84
60	5300	20.79	21.02
64	5320	20.71	20.75
100	5500	20.83	20.86
116	5580	20.90	20.88
140	5700	20.62	20.82

802.11ax (HE20)

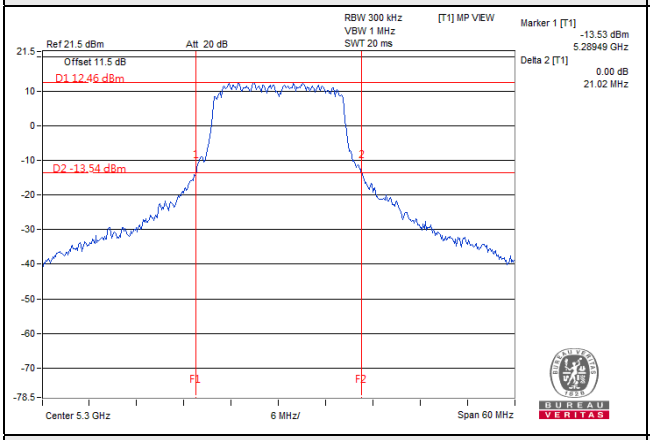
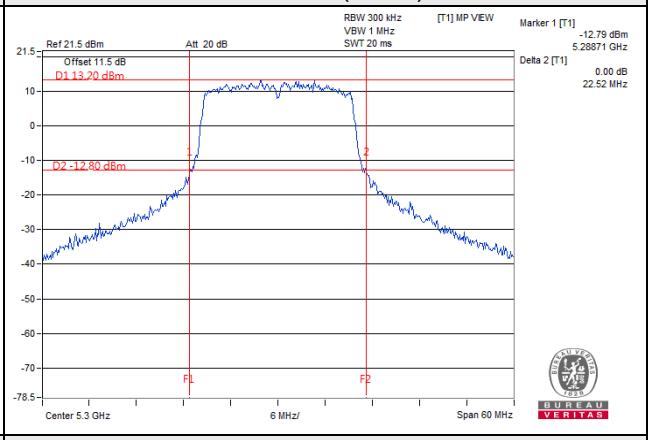
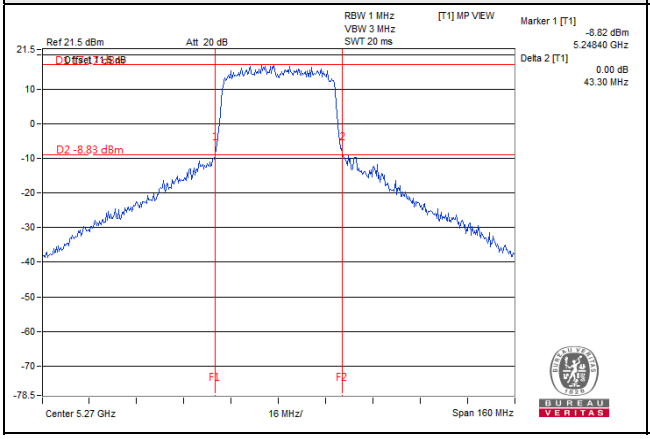
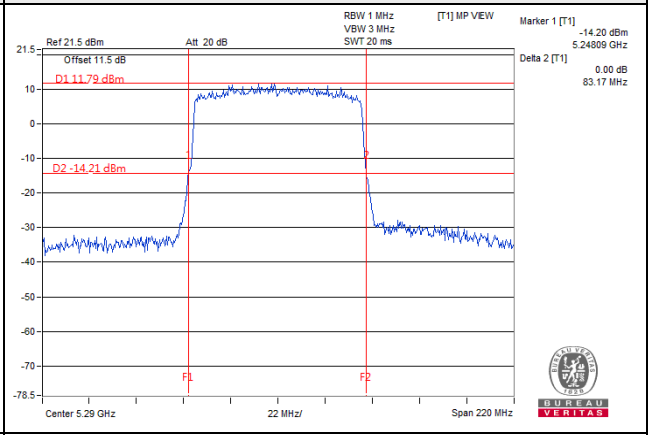
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	22.08	22.50
60	5300	22.52	22.24
64	5320	21.52	21.75
100	5500	22.17	21.58
116	5580	22.43	21.90
140	5700	21.44	21.47

802.11ax (HE40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	42.65	43.30
62	5310	42.22	42.19
102	5510	42.19	42.16
110	5550	42.34	42.44
134	5670	42.22	42.43

802.11ax (HE80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.74	83.17
106	5530	82.89	83.09
122	5610	82.85	82.93

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	23.81	240.178
5470~5725	23.70	234.266

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.69	233.780
5470~5725	23.63	230.867

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.88	244.115
5470~5725	23.71	234.717

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	21.37	136.955
5470~5725	22.79	189.908

Beamforming Mode

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	20.68	116.898
5470~5725	20.62	115.442

802.11ax (HE40)

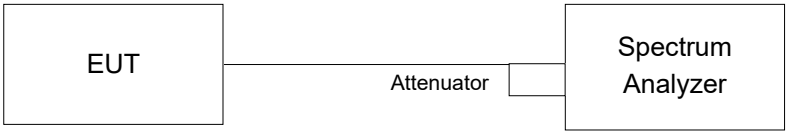
Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	20.87	122.066
5470~5725	20.70	117.366

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	18.36	68.482
5470~5725	19.78	94.961

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
36	5180	16.44	16.44
40	5200	16.68	16.68
48	5240	16.68	16.56
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.44
100	5500	16.44	16.44
116	5580	16.44	16.44
140	5700	16.44	16.44
149	5745	16.92	16.44
157	5785	16.92	16.56
165	5825	17.16	16.56

802.11ax (HE20)

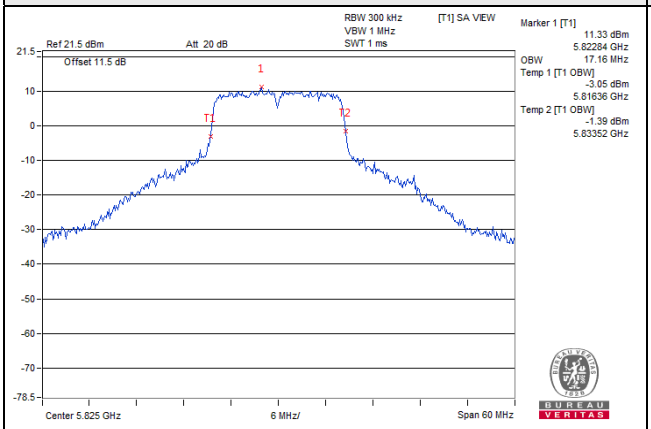
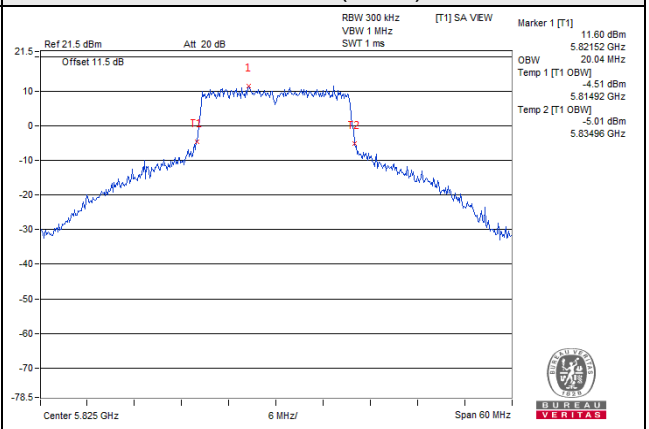
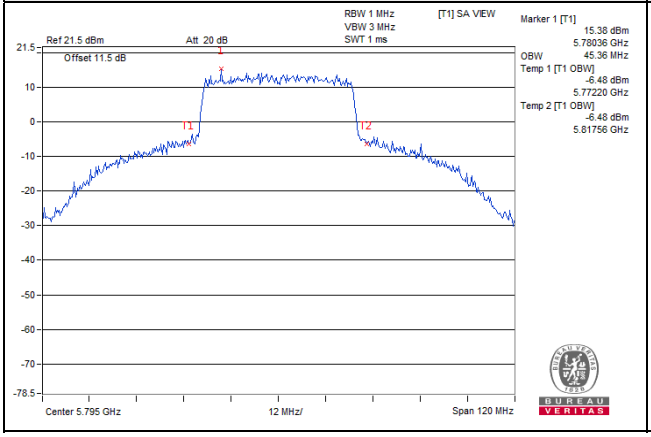
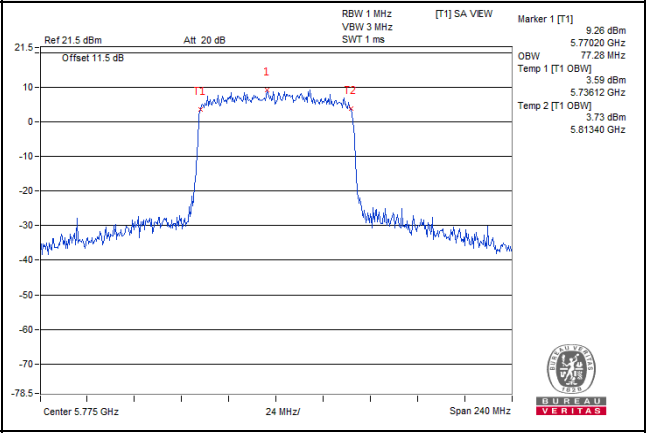
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	19.08	18.96
40	5200	19.20	19.08
48	5240	19.08	19.08
52	5260	19.08	19.08
60	5300	19.08	19.08
64	5320	18.96	18.96
100	5500	18.96	18.84
116	5580	18.96	19.08
140	5700	18.96	18.84
149	5745	19.20	19.08
157	5785	19.32	19.08
165	5825	20.04	19.08

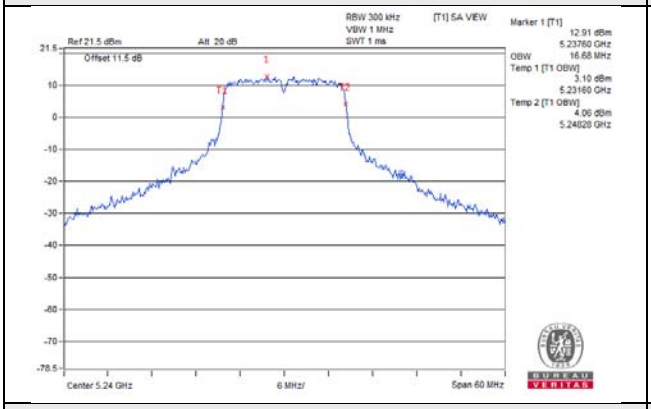
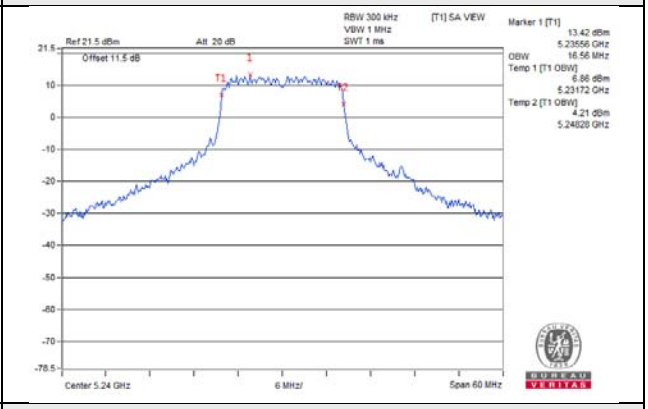
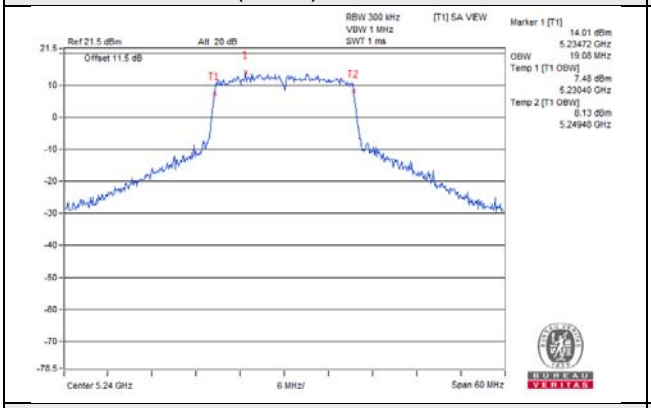
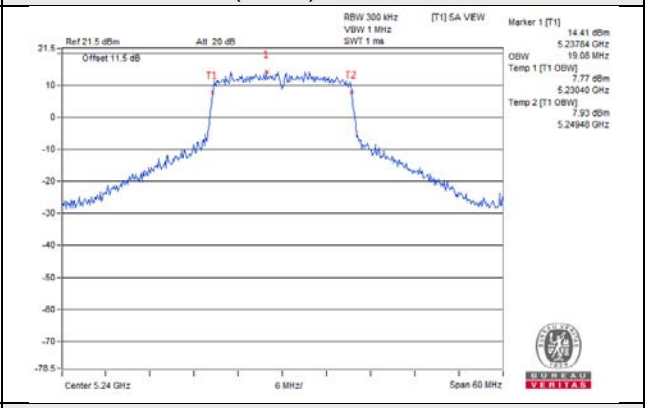
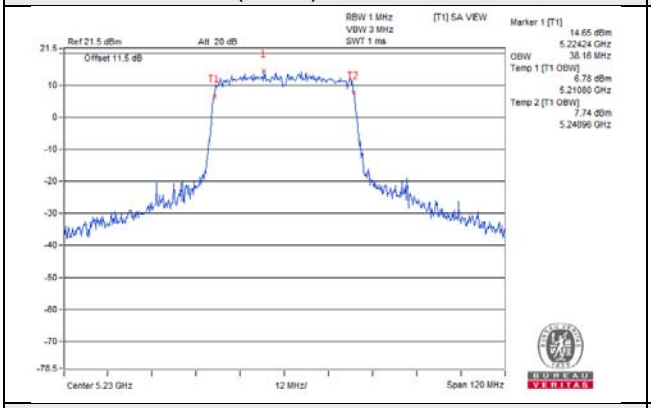
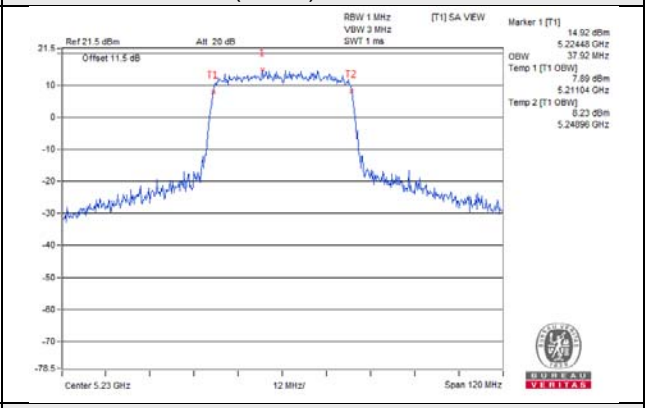
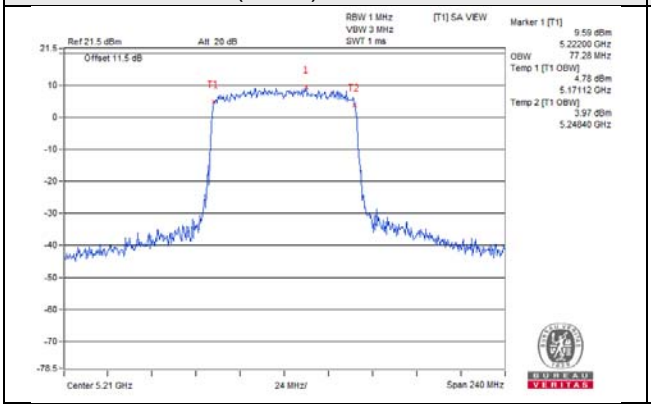
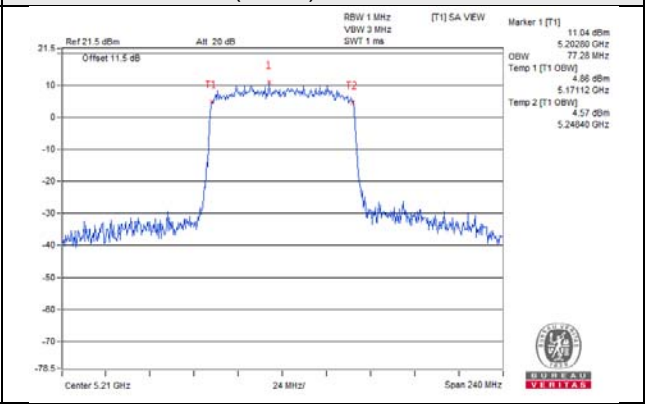
802.11ax (HE40)

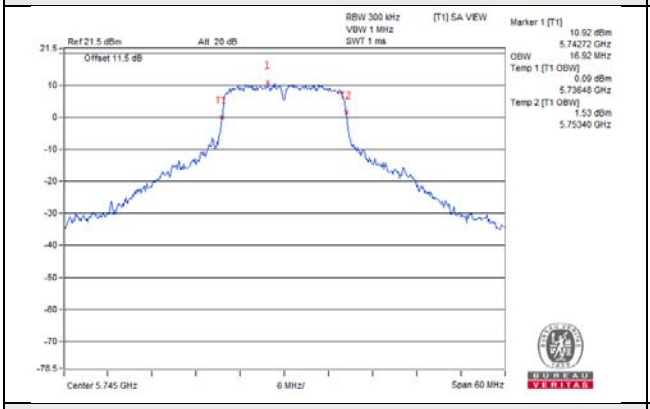
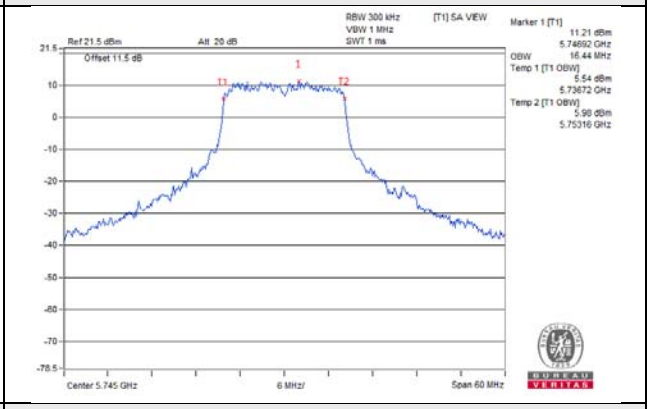
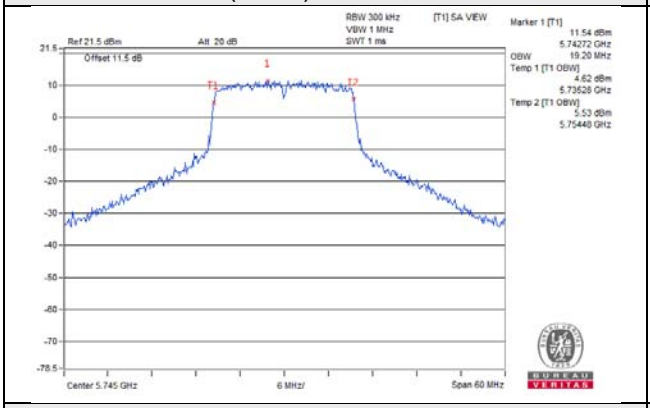
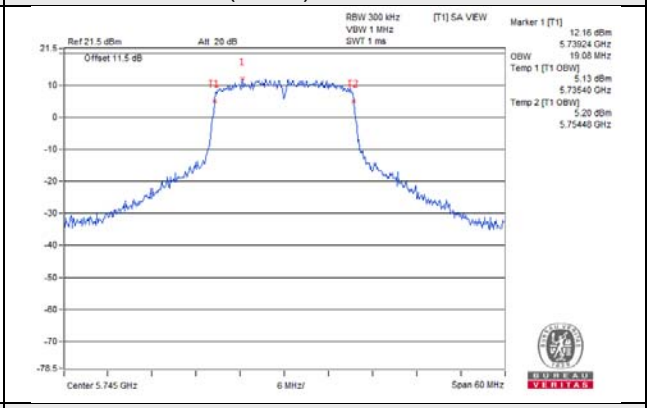
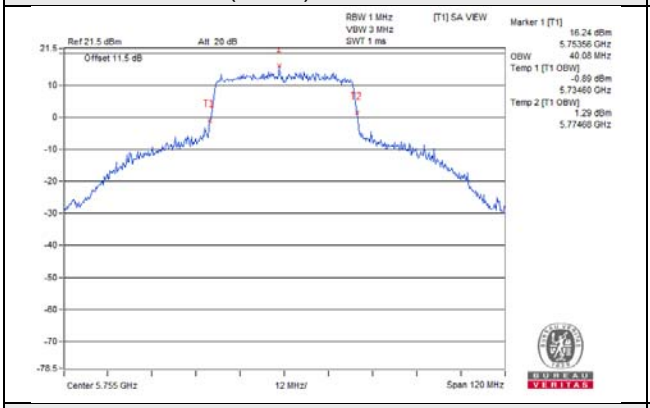
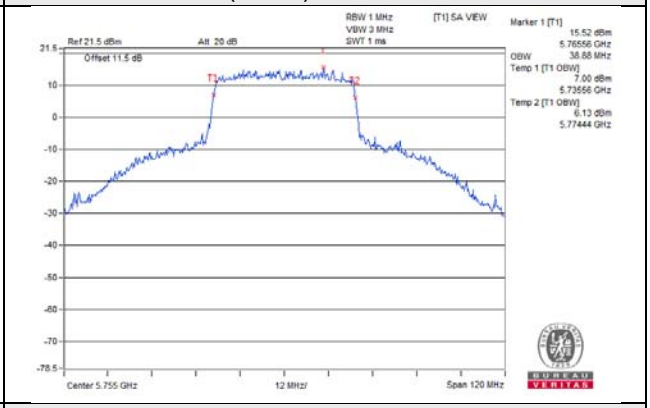
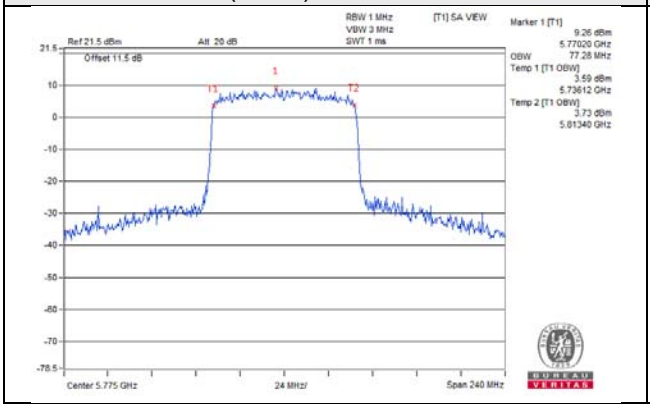
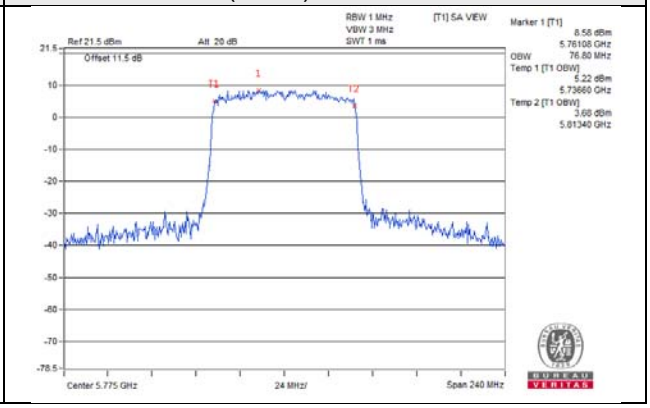
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	38.16	37.92
46	5230	38.16	37.92
54	5270	38.16	38.16
62	5310	37.92	37.92
102	5510	38.16	38.16
110	5550	37.92	38.16
134	5670	37.68	38.16
151	5755	40.08	38.88
159	5795	45.36	39.12

802.11ax (HE80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	77.28	77.28
58	5290	77.28	77.28
106	5530	77.28	77.28
122	5610	77.28	77.28
155	5775	77.28	76.80

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

Spectrum Plot for near By DFS Band	
802.11a / Chain 0 / CH 48	802.11a / Chain 1 / CH 48
	
802.11ax (HE20) / Chain 0 / CH 48	802.11ax (HE20) / Chain 1 / CH 48
	
802.11ax (HE40) / Chain 0 / CH 46	802.11ax (HE40) / Chain 1 / CH 46
	
802.11ax (HE80) / Chain 0 / CH 42	802.11ax (HE80) / Chain 1 / CH 42
	

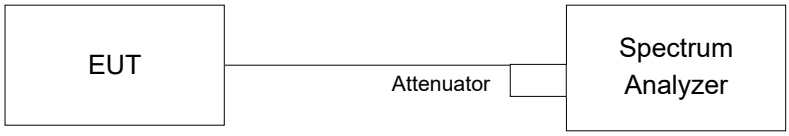
Spectrum Plot for near By DFS Band	
802.11a / Chain 0 / CH 149	802.11a / Chain 1 / CH 149
	
802.11ax (HE20) / Chain 0 / CH 149	802.11ax (HE20) / Chain 1 / CH 149
	
802.11ax (HE40) / Chain 0 / CH 151	802.11ax (HE40) / Chain 1 / CH 151
	
802.11ax (HE80) / Chain 0 / CH 155	802.11ax (HE80) / Chain 1 / CH 155
	

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-1, U-NII-2A and U-NII-2C band:

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-1, 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				
36	5180	6.16	5.78	0.30	9.29	15.77	Pass
40	5200	8.13	8.06	0.30	11.41	15.77	Pass
48	5240	8.07	8.12	0.30	11.41	15.77	Pass
52	5260	5.90	6.49	0.30	9.52	9.77	Pass
60	5300	6.07	6.66	0.30	9.69	9.77	Pass
64	5320	5.92	6.72	0.30	9.65	9.77	Pass
100	5500	5.56	5.95	0.30	9.07	9.30	Pass
116	5580	5.51	6.06	0.30	9.11	9.30	Pass
140	5700	4.35	3.95	0.30	7.47	9.30	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. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 17 - (7.23 - 6) = 15.77dBm.
3. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.23 - 6) = 9.77dBm.
4. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.70 - 6) = 9.30dBm.
5. 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				
36	5180	5.80	5.54	0.19	8.87	15.77	Pass
40	5200	7.34	7.51	0.19	10.63	15.77	Pass
48	5240	7.40	7.59	0.19	10.70	15.77	Pass
52	5260	6.24	6.53	0.19	9.59	9.77	Pass
60	5300	5.99	6.56	0.19	9.48	9.77	Pass
64	5320	5.09	5.87	0.19	8.70	9.77	Pass
100	5500	5.28	5.45	0.19	8.57	9.30	Pass
116	5580	5.19	5.73	0.19	8.67	9.30	Pass
140	5700	3.20	3.14	0.19	6.37	9.30	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. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 17 - (7.23 - 6) = 15.77dBm.
3. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.23 - 6) = 9.77dBm.
4. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.70 - 6) = 9.30dBm.
5. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

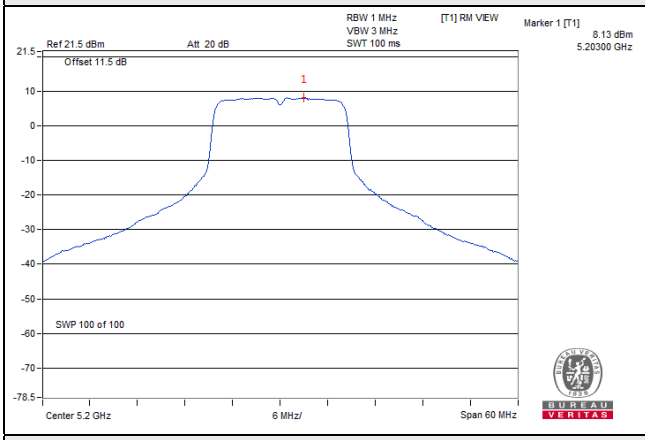
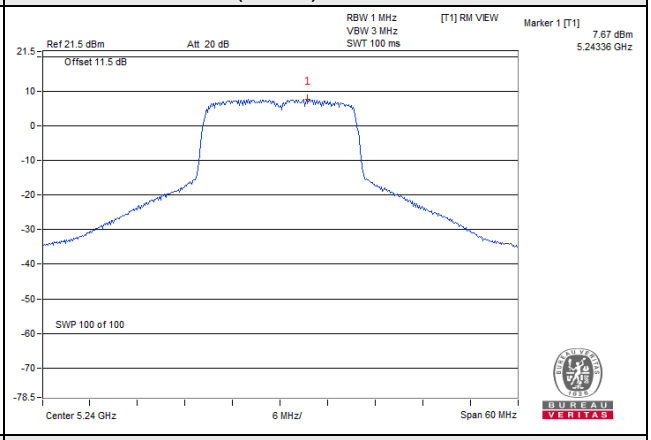
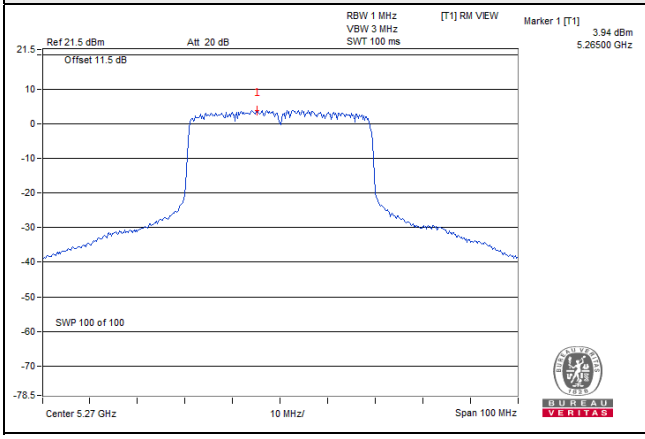
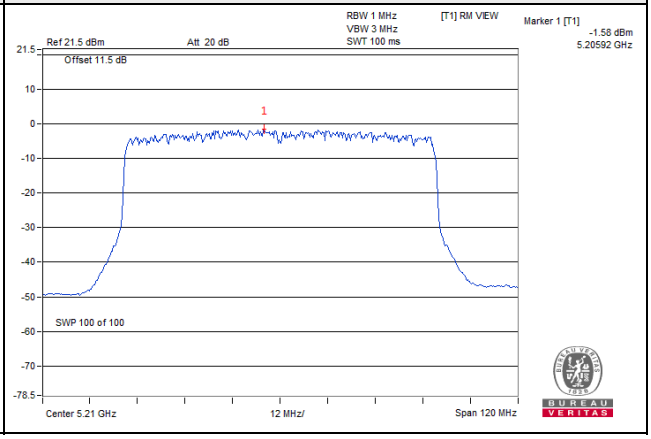
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	2.33	2.33	0.21	5.55	15.77	Pass
46	5230	2.99	3.20	0.21	6.32	15.77	Pass
54	5270	3.29	3.94	0.21	6.85	9.77	Pass
62	5310	0.75	1.98	0.21	4.63	9.77	Pass
102	5510	0.68	1.13	0.21	4.13	9.30	Pass
110	5550	2.55	2.92	0.21	5.96	9.30	Pass
134	5670	0.13	0.31	0.21	3.44	9.30	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. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 17 - (7.23 - 6) = 15.77dBm.
3. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.23 - 6) = 9.77dBm.
4. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.70 - 6) = 9.30dBm.
5. 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				
42	5210	-1.58	-1.81	0.31	1.63	15.77	Pass
58	5290	-2.46	-1.84	0.31	1.18	9.77	Pass
106	5530	-2.83	-2.56	0.31	0.63	9.30	Pass
122	5610	-1.76	-1.66	0.31	1.61	9.30	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. 5180-5240MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 17 - (7.23 - 6) = 15.77dBm.
3. 5260-5320MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.23dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.23 - 6) = 9.77dBm.
4. 5500-5700MHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.70dBi > 6dBi, so the power density limit shall be reduced to 11 - (7.70 - 6) = 9.30dBm.
5. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a / Chain 0 / CH 40	802.11ax (HE20) / Chain 1 / CH 48
	
802.11ax (HE40) / Chain 1 / CH 54	802.11ax (HE80) / Chain 0 / CH 42
	

For U-NII-3 band:

802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-2.90	-0.68	3.01	0.30	2.63	28.72	Pass
	157	5785	-2.97	-0.75	3.01	0.30	2.56	28.72	Pass
	165	5825	-2.86	-0.64	3.01	0.30	2.67	28.72	Pass
1	149	5745	-2.79	-0.57	3.01	0.30	2.74	28.72	Pass
	157	5785	-3.12	-0.90	3.01	0.30	2.41	28.72	Pass
	165	5825	-2.58	-0.36	3.01	0.30	2.95	28.72	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power density limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.
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=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-4.61	-2.39	3.01	0.19	0.81	28.72	Pass
	157	5785	-4.62	-2.40	3.01	0.19	0.80	28.72	Pass
	165	5825	-3.86	-1.64	3.01	0.19	1.56	28.72	Pass
1	149	5745	-4.40	-2.18	3.01	0.19	1.02	28.72	Pass
	157	5785	-4.23	-2.01	3.01	0.19	1.19	28.72	Pass
	165	5825	-3.80	-1.58	3.01	0.19	1.62	28.72	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power density limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

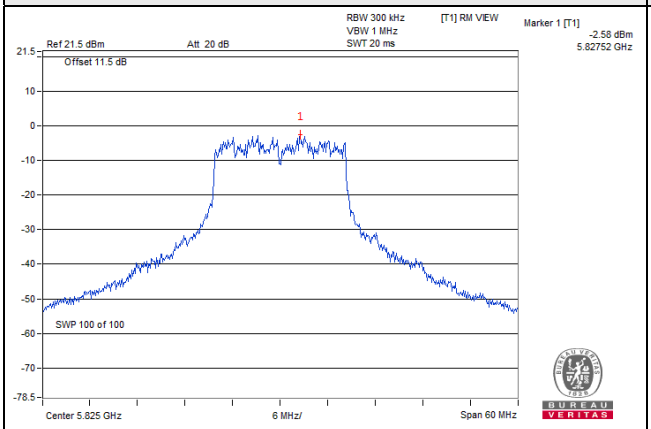
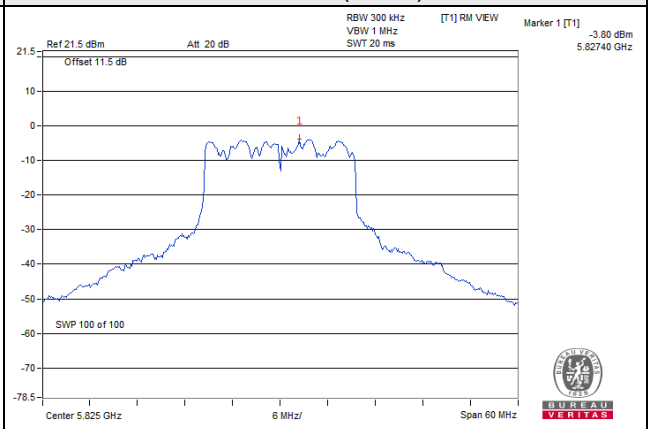
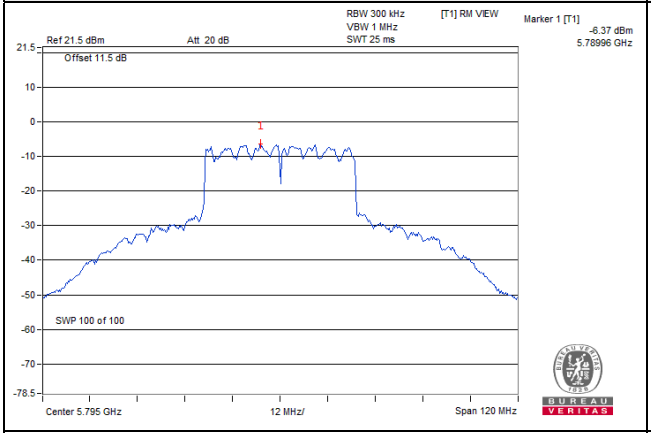
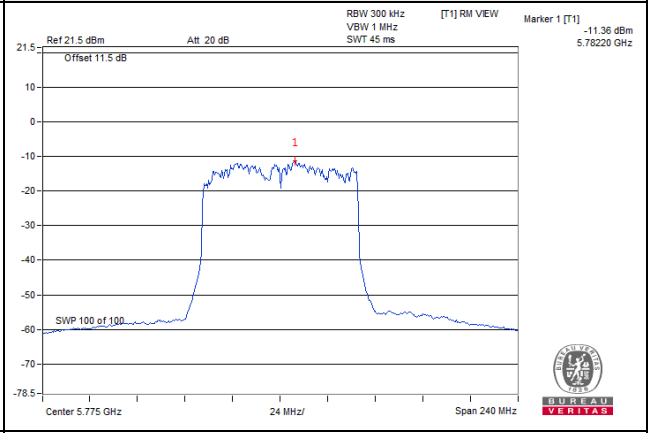
TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-6.74	-4.52	3.01	0.21	-1.30	28.72	Pass
	159	5795	-6.56	-4.34	3.01	0.21	-1.12	28.72	Pass
1	151	5755	-6.78	-4.56	3.01	0.21	-1.34	28.72	Pass
	159	5795	-6.37	-4.15	3.01	0.21	-0.93	28.72	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power density limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.
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=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-11.87	-9.65	3.01	0.31	-6.33	28.72	Pass
1	155	5775	-11.36	-9.14	3.01	0.31	-5.82	28.72	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2/2$] = 7.28dBi > 6dBi, so the power density limit shall be reduced to 30 - (7.28 - 6) = 28.72dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

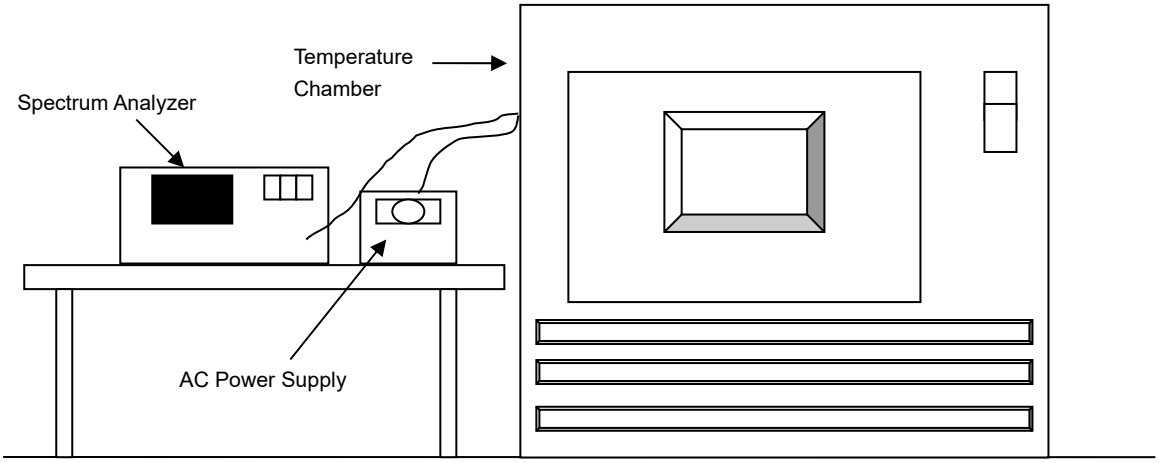
Spectrum Plot of Worst Value	
802.11a	802.11ax (HE20)
	
802.11ax (HE40)	802.11ax (HE80)
	

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. 23, 2019	Sep. 22, 2020
Standard Temperature And Humidity Chamber GIANT FORCE	GTH-120-40-CP-AR	MAA1306-019	Sep. 10, 2019	Sep. 09, 2020
			Sep. 09, 2020	Sep. 08, 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: 5180MHz									
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	5180.0088	Pass	5180.0105	Pass	5180.0128	Pass	5180.0134	Pass
30	120	5179.9852	Pass	5179.9839	Pass	5179.9807	Pass	5179.9806	Pass
20	120	5180.0199	Pass	5180.0194	Pass	5180.0229	Pass	5180.0236	Pass
10	120	5179.9928	Pass	5179.9937	Pass	5179.9975	Pass	5179.9945	Pass
0	120	5180.0156	Pass	5180.0153	Pass	5180.0159	Pass	5180.0184	Pass

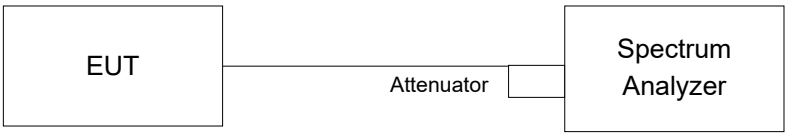
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5180.0203	Pass	5180.0186	Pass	5180.0223	Pass	5180.0239	Pass
	120	5180.0199	Pass	5180.0194	Pass	5180.0229	Pass	5180.0236	Pass
	102	5180.0194	Pass	5180.0195	Pass	5180.0231	Pass	5180.0237	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

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	15.71	16.31	0.5	Pass
157	5785	15.83	15.50	0.5	Pass
165	5825	16.08	16.33	0.5	Pass

802.11ax (HE20)

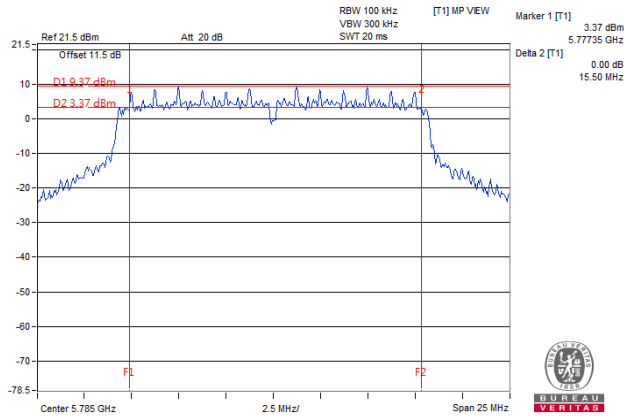
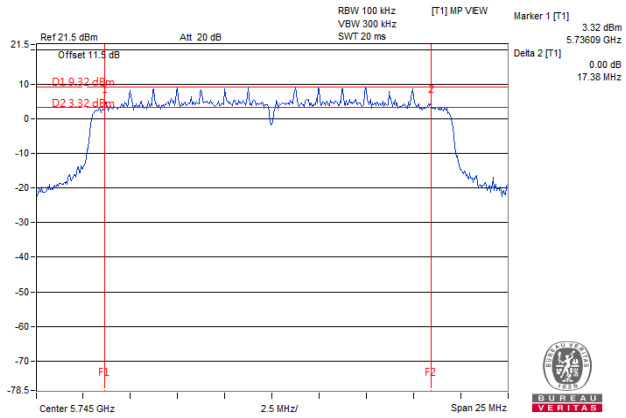
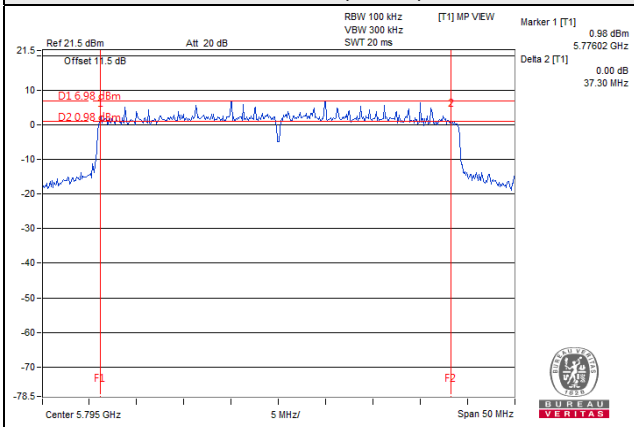
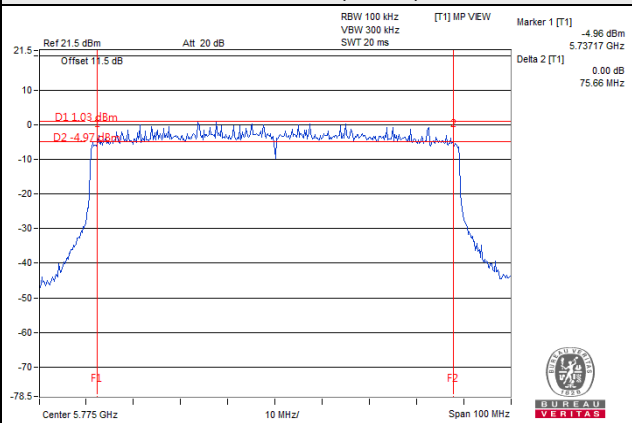
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	18.66	17.38	0.5	Pass
157	5785	18.55	18.51	0.5	Pass
165	5825	18.52	18.16	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	38.03	37.67	0.5	Pass
159	5795	37.86	37.30	0.5	Pass

802.11ax (HE80)

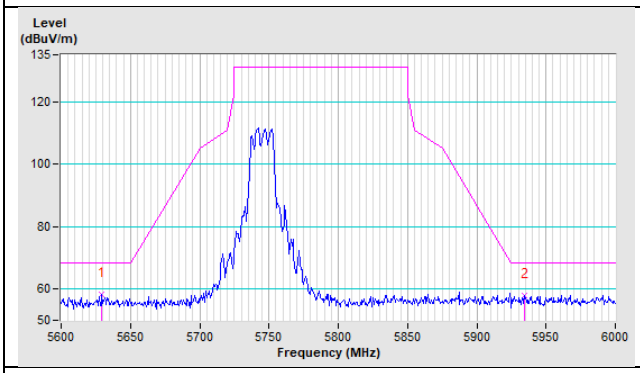
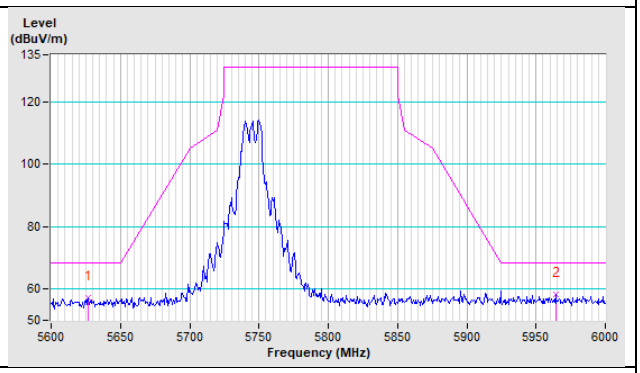
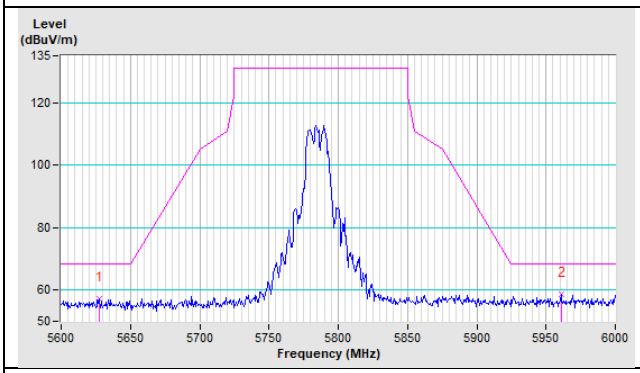
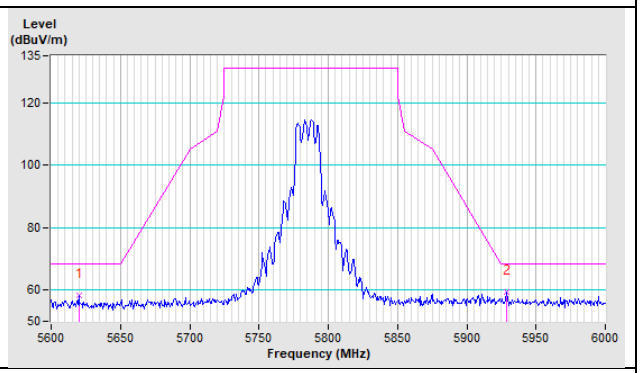
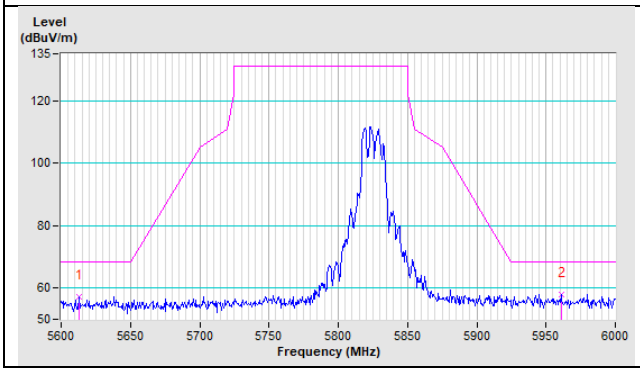
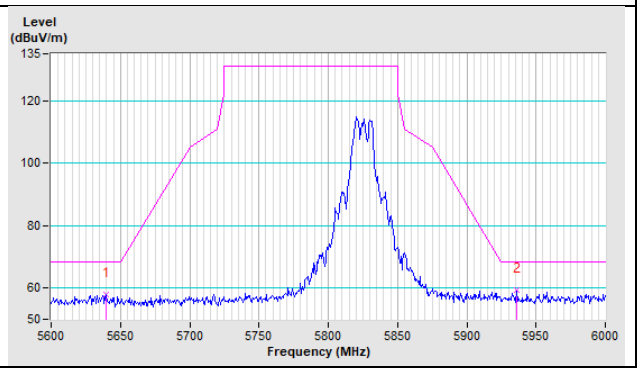
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	76.39	75.66	0.5	Pass

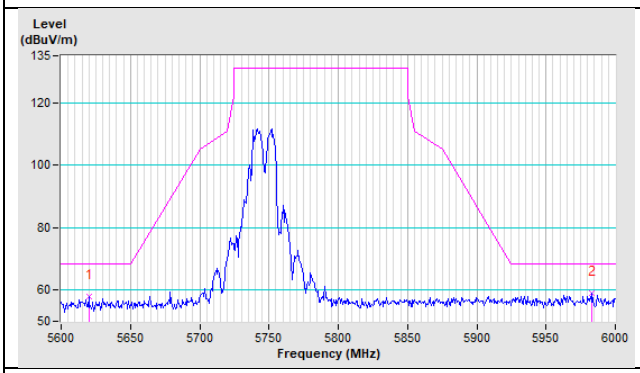
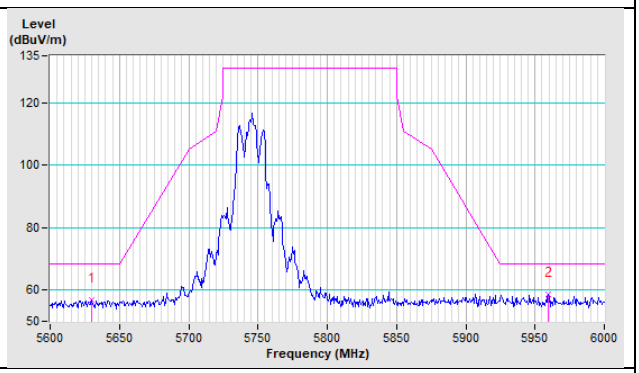
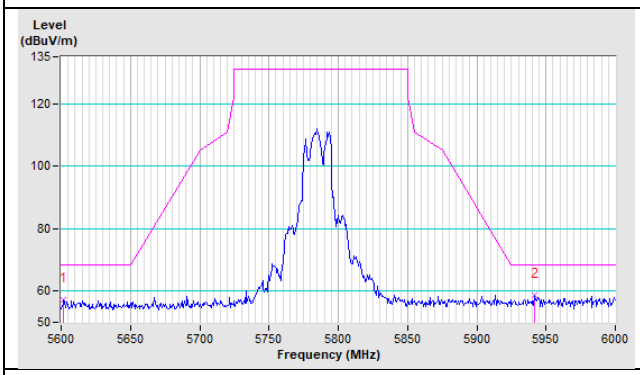
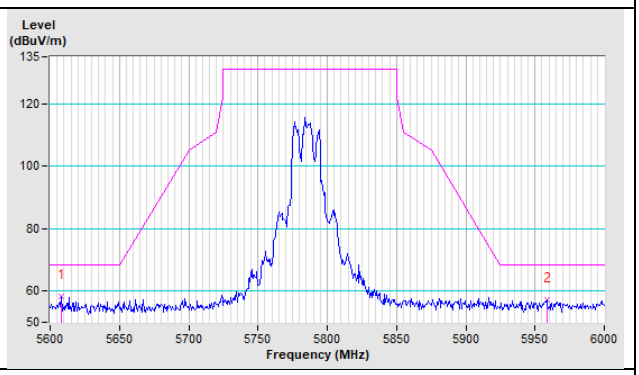
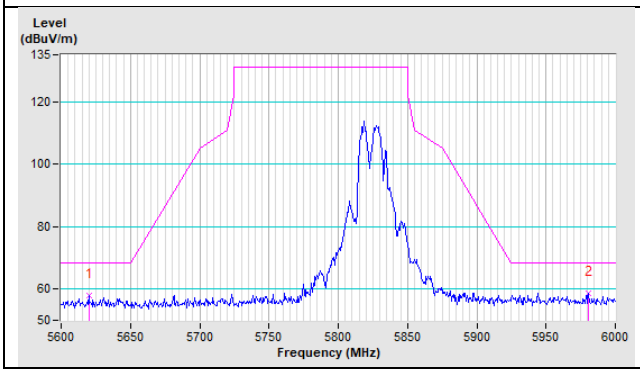
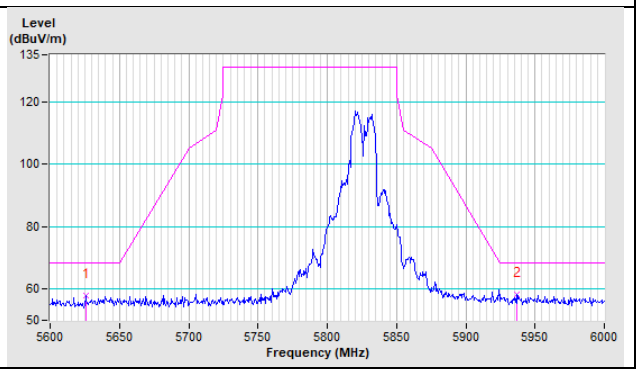
Spectrum Plot of Worst Value	
802.11a	802.11ax (HE20)
	
802.11ax (HE40)	802.11ax (HE80)
	

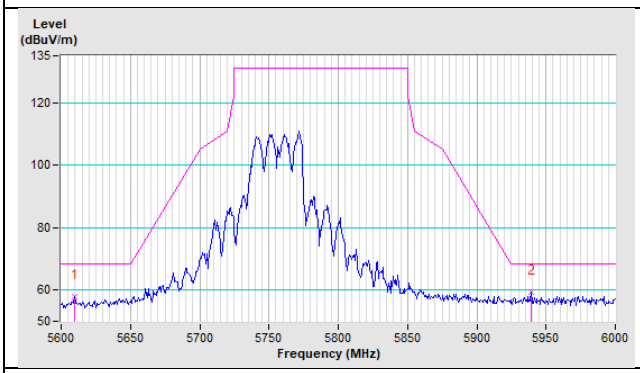
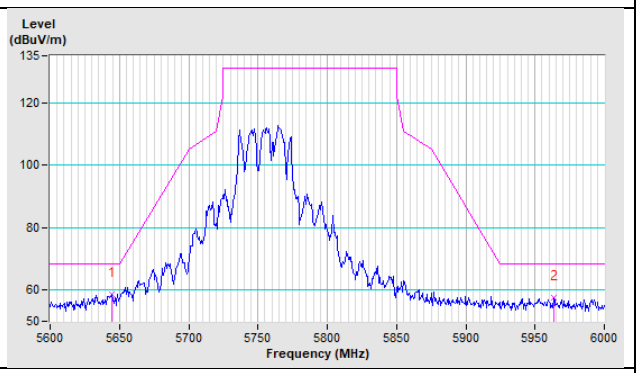
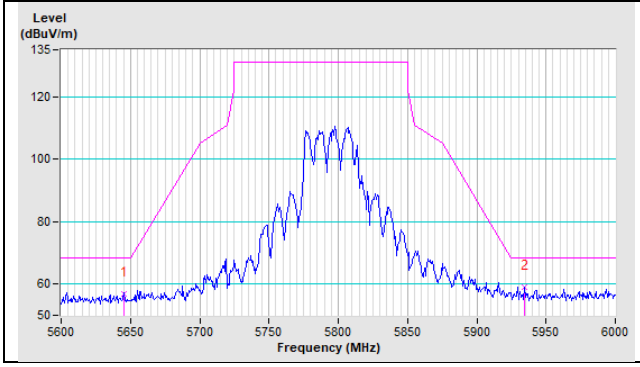
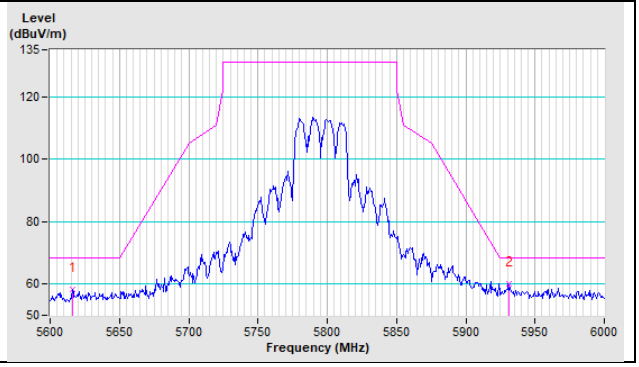
5 Pictures of Test Arrangements

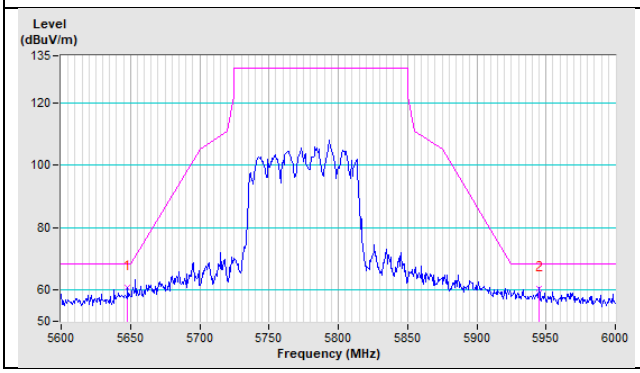
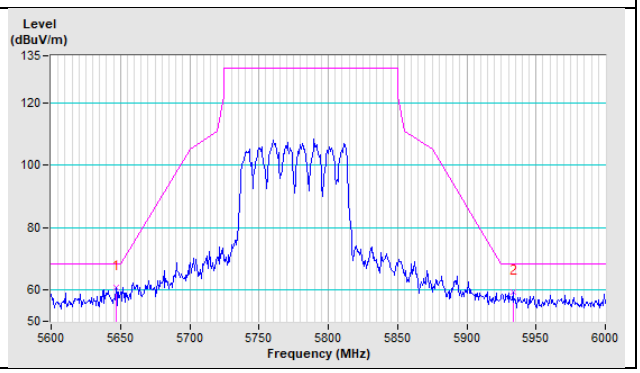
Please refer to the attached file (Test Setup Photo).

Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a CH 149：5745 MHz	
Horizontal	Vertical
	
802.11a CH 157：5785 MHz	
Horizontal	Vertical
	
802.11a CH 165：5825 MHz	
Horizontal	Vertical
	

802.11ax (HE20) CH 149：5745 MHz	
Horizontal	Vertical
	
802.11ax (HE20) CH 157：5785 MHz	
Horizontal	Vertical
	
802.11ax (HE20) CH 165：5825 MHz	
Horizontal	Vertical
	

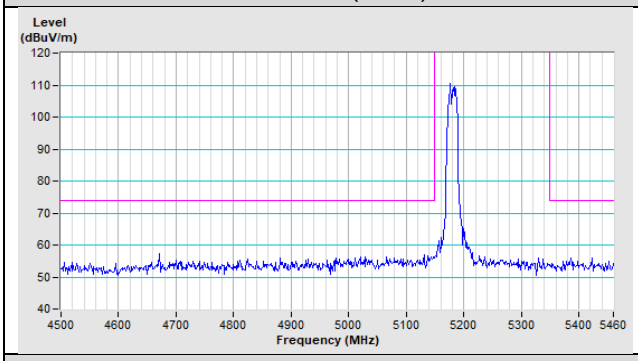
802.11ax (HE40) CH 151：5755 MHz	
Horizontal	Vertical
	
802.11ax (HE40) CH 159：5795 MHz	
Horizontal	Vertical
	

802.11ax (HE80) CH 155：5775 MHz	
Horizontal	Vertical
	

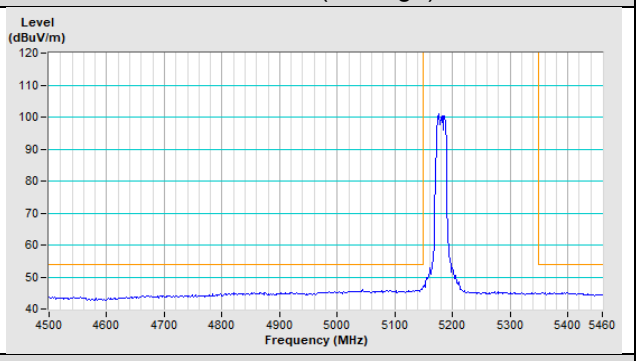
Annex B - Band Edge Measurement

802.11a Channel 36

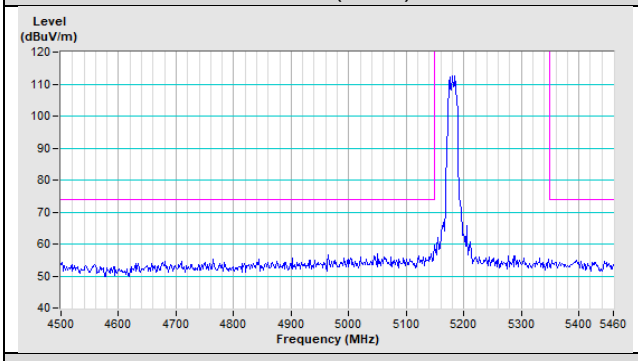
Horizontal (Peak)



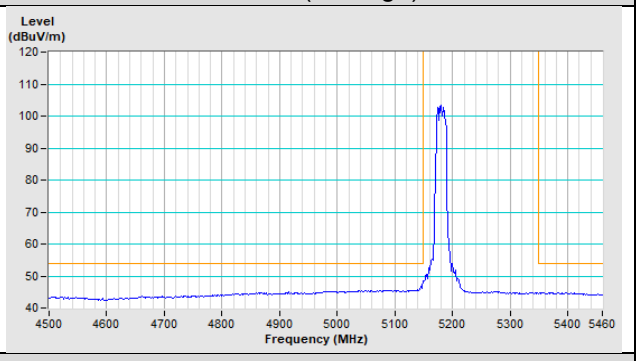
Horizontal (Average)



Vertical (Peak)

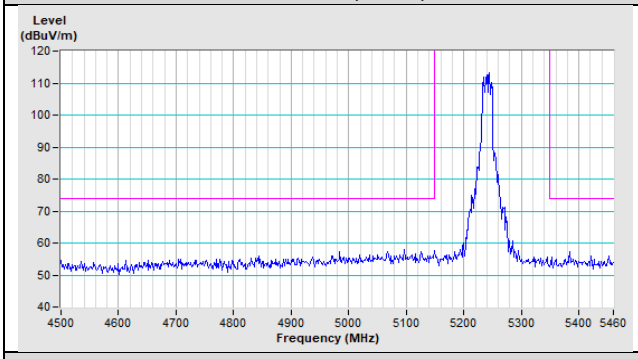


Vertical (Average)

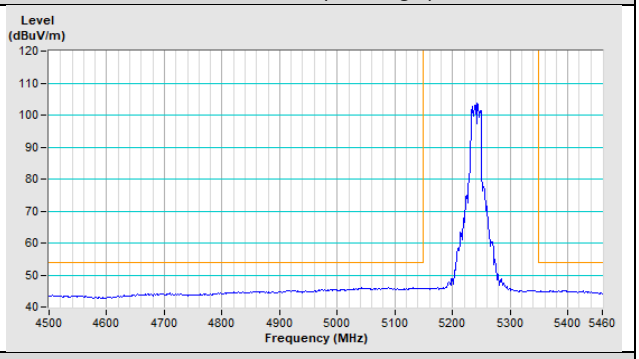


802.11a Channel 48

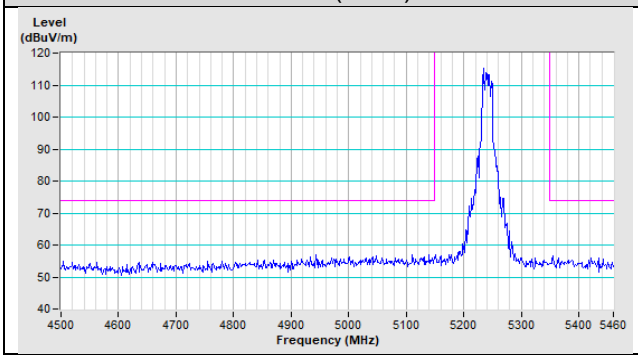
Horizontal (Peak)



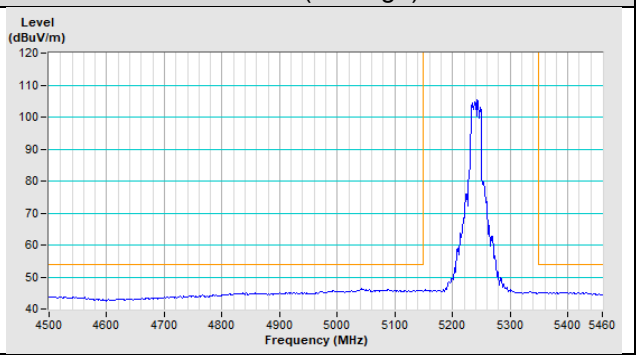
Horizontal (Average)

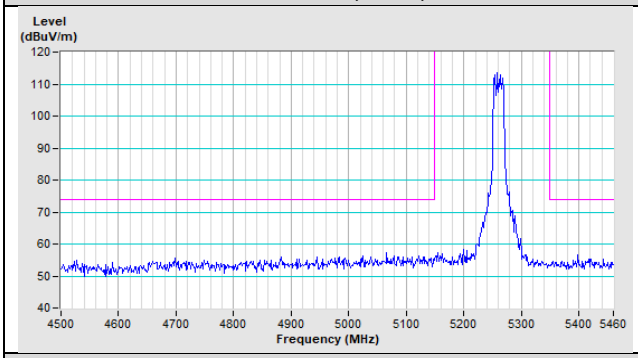
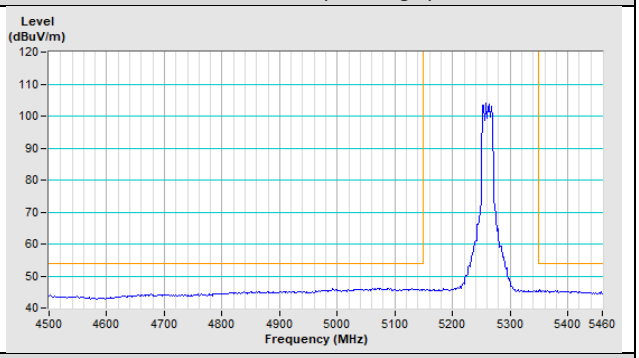
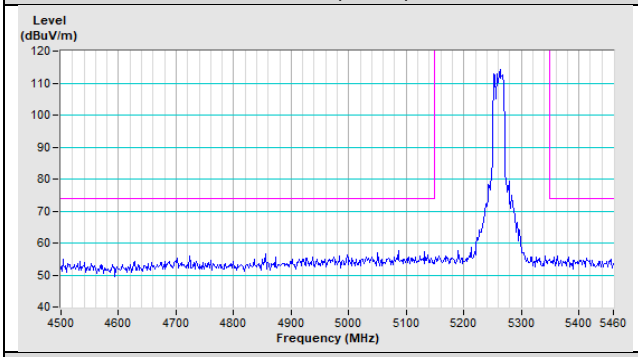
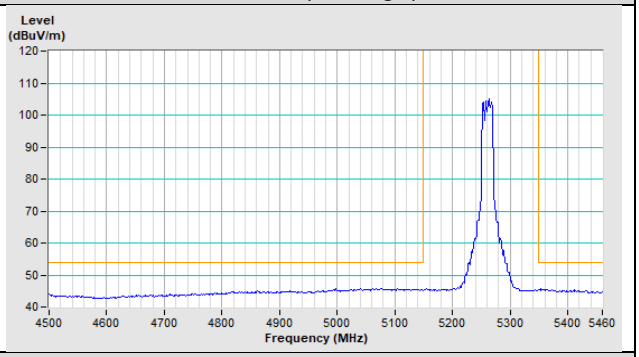
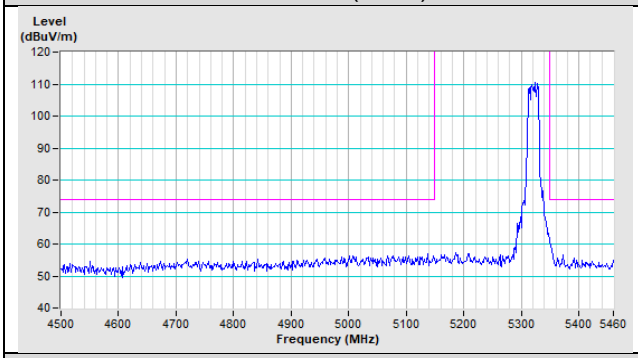
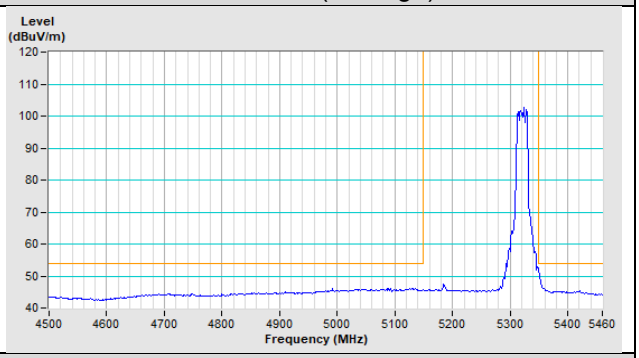
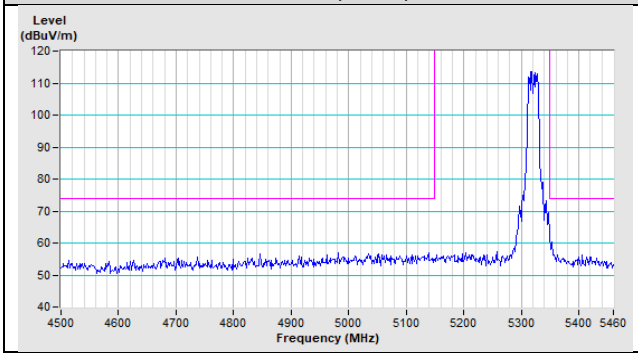
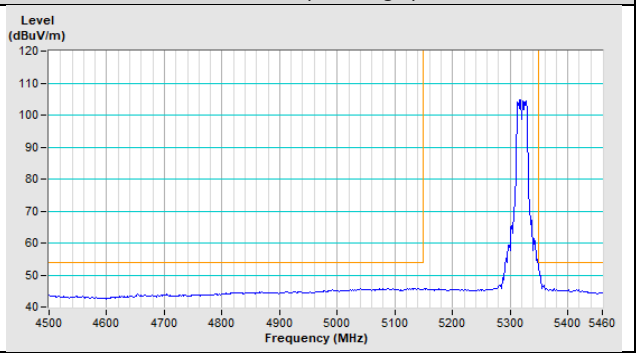


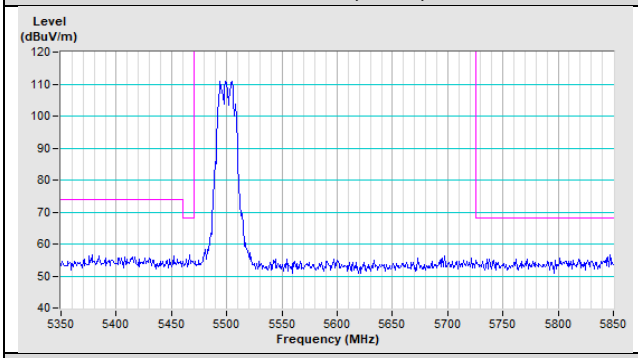
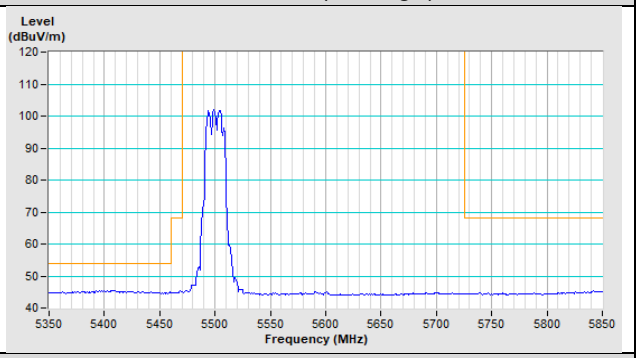
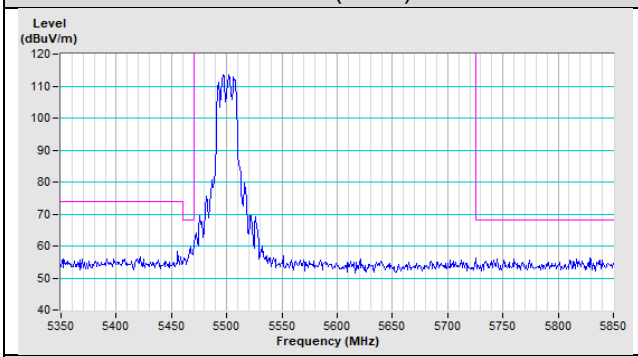
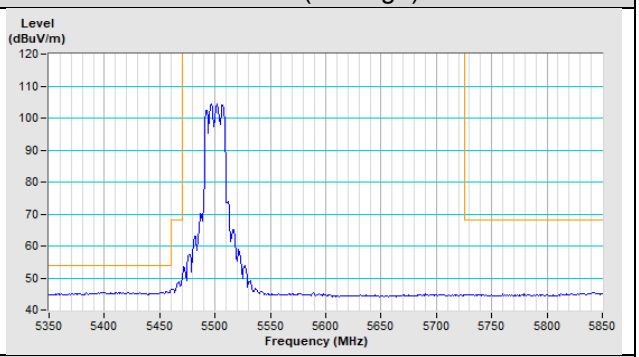
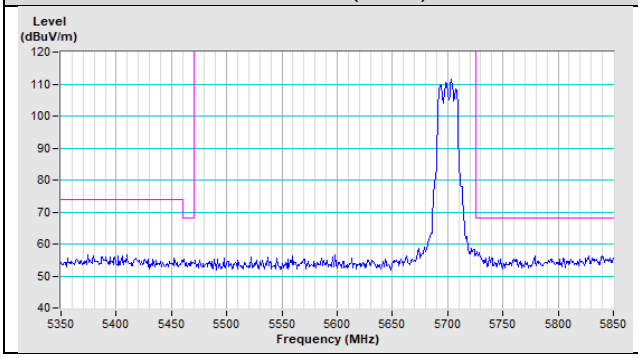
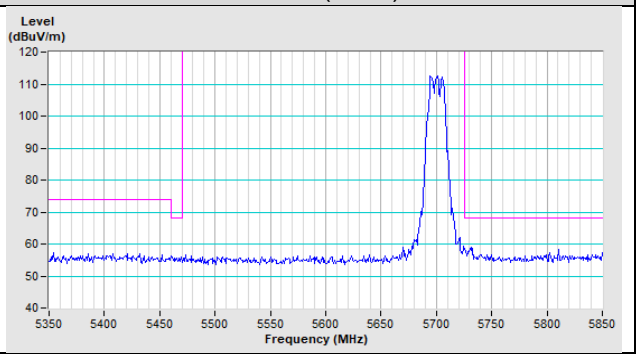
Vertical (Peak)

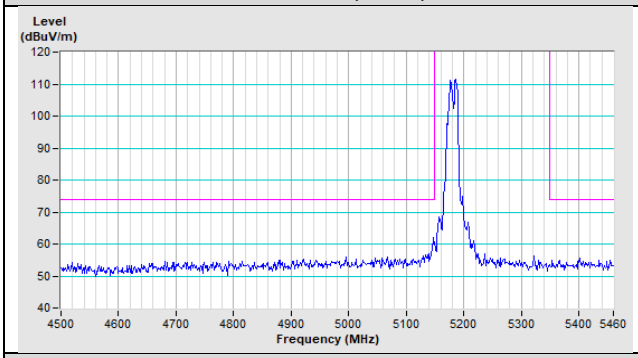
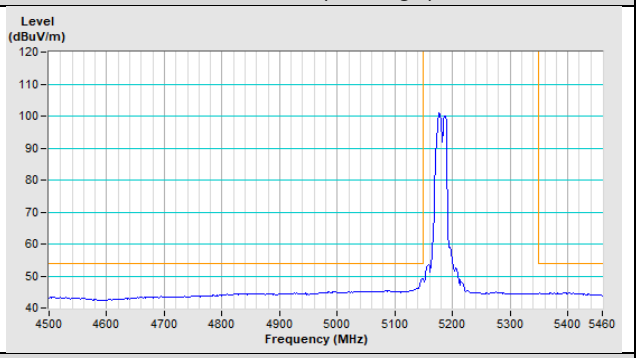
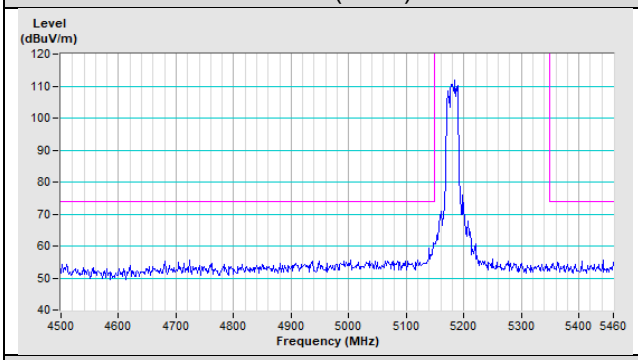
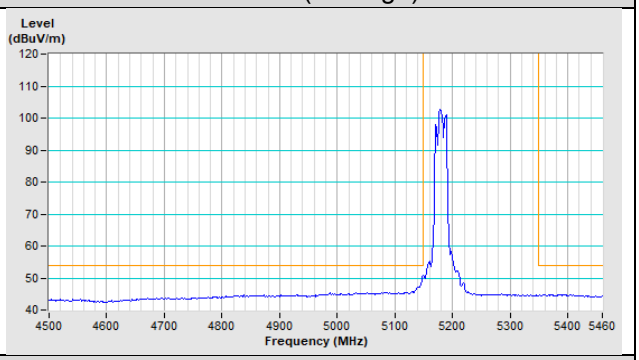
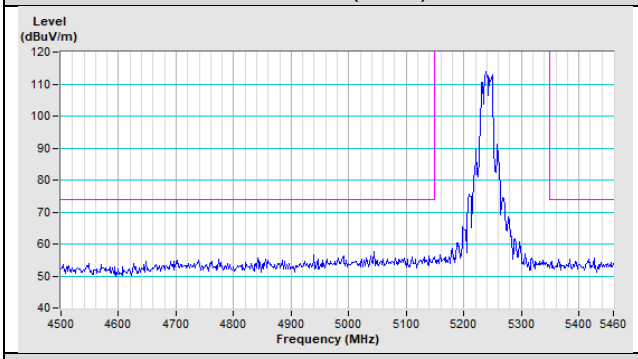
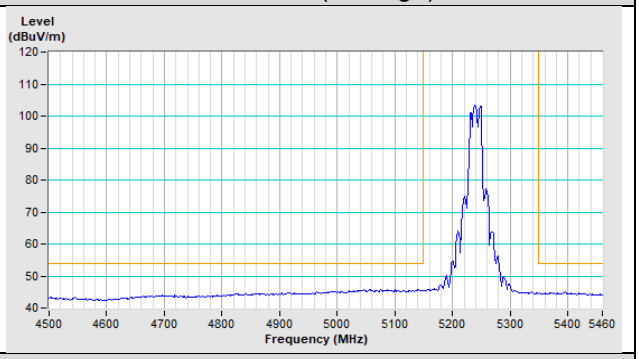
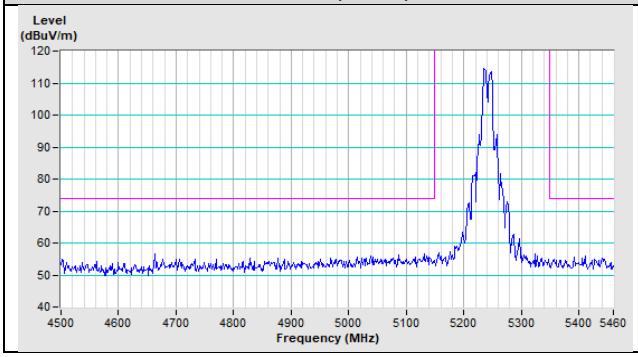
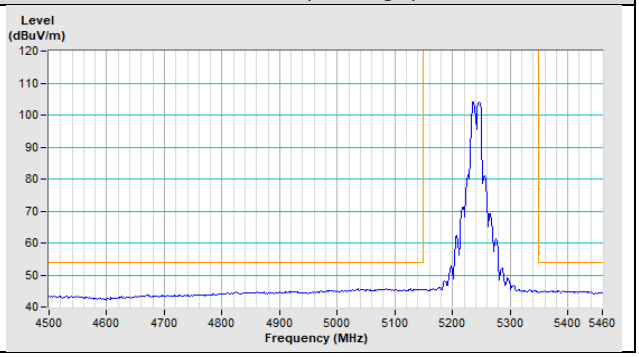


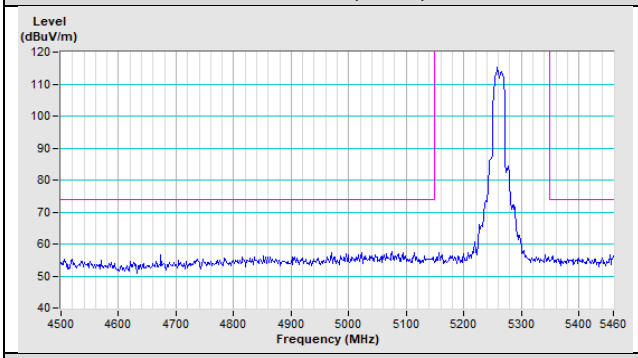
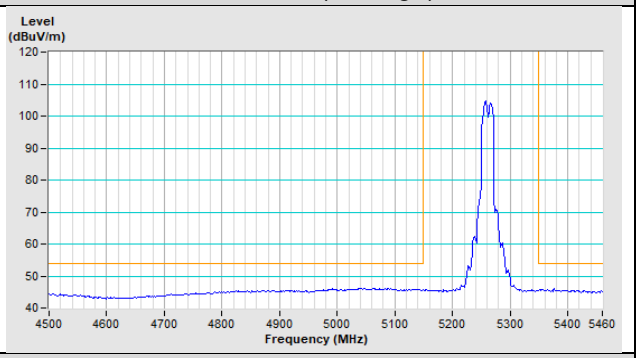
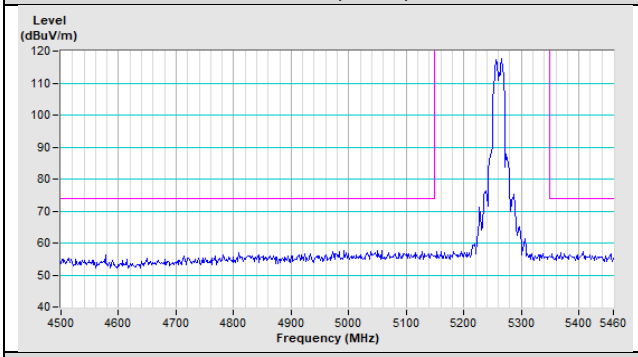
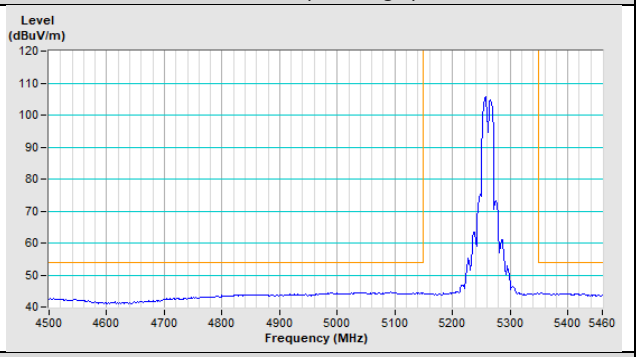
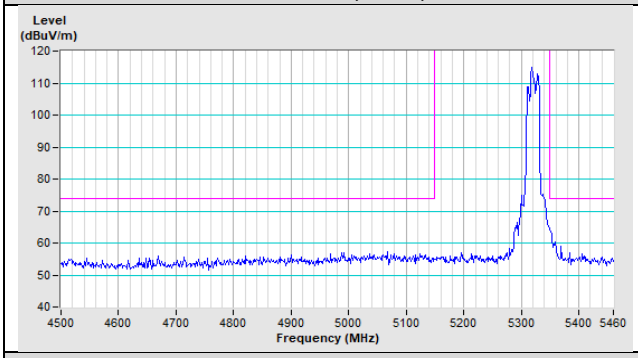
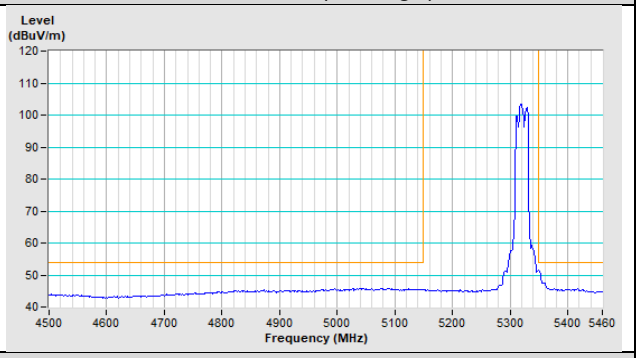
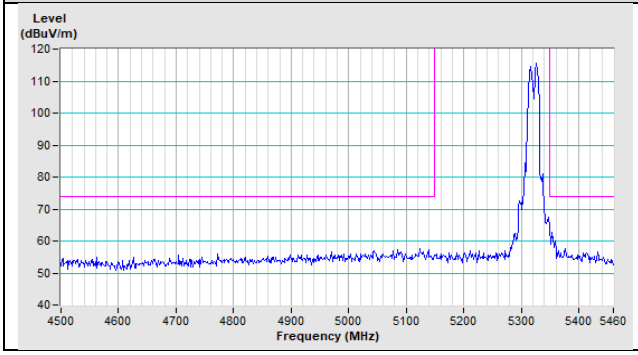
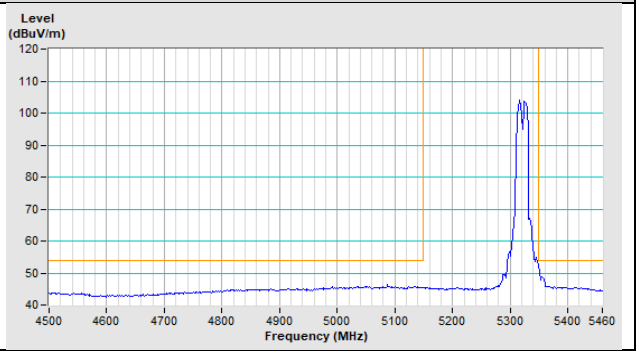
Vertical (Average)

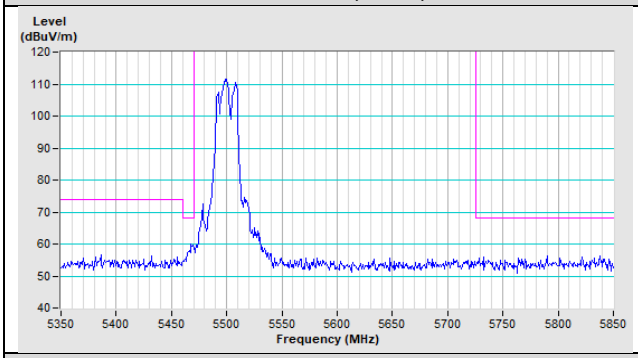
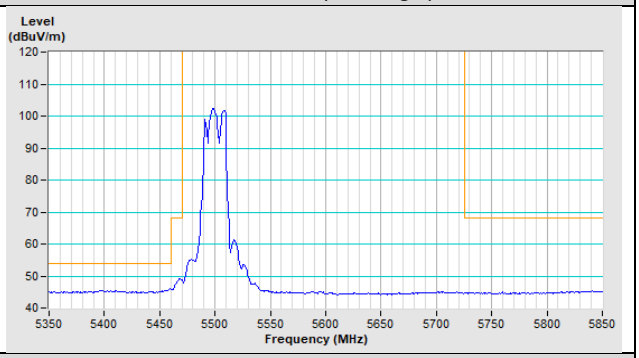
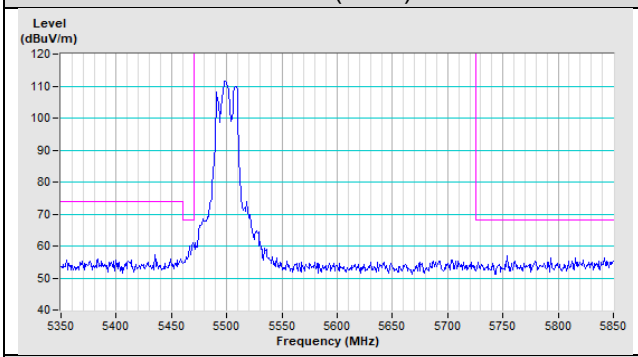
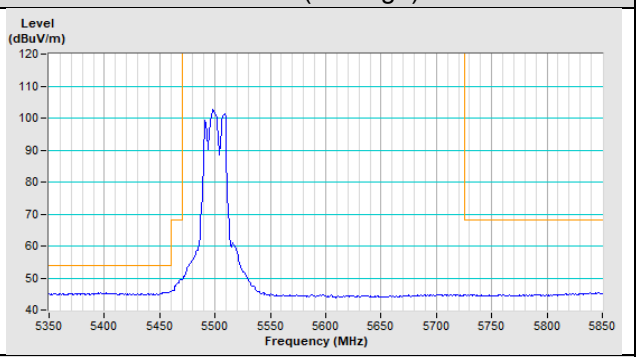
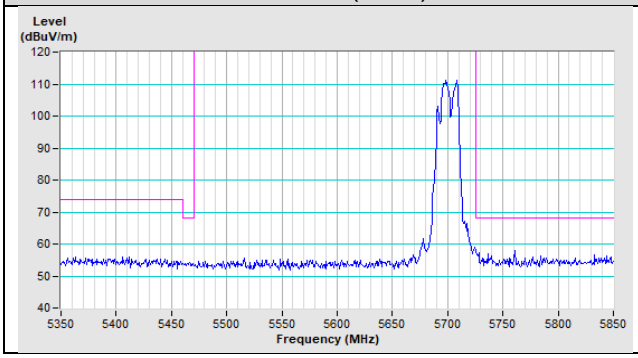
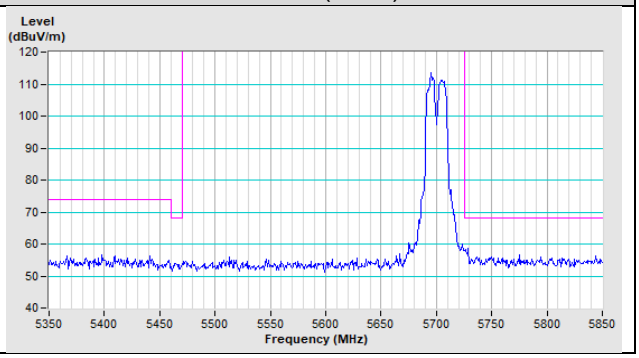


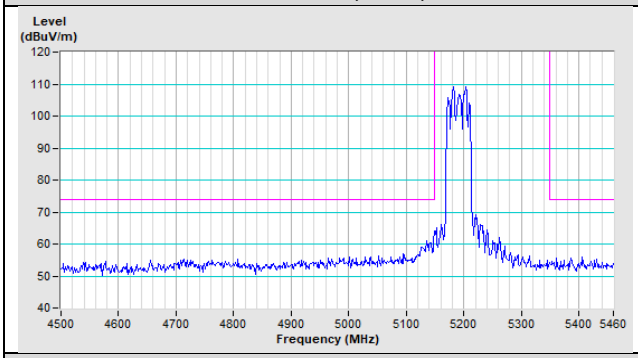
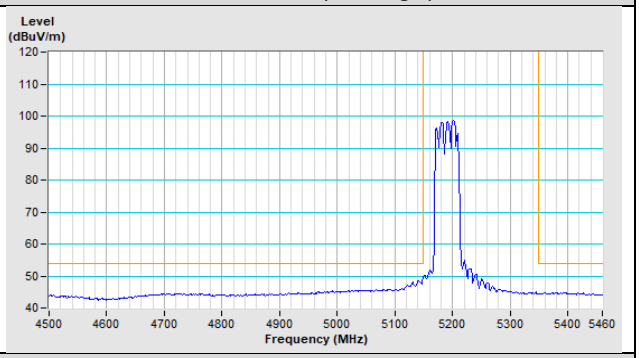
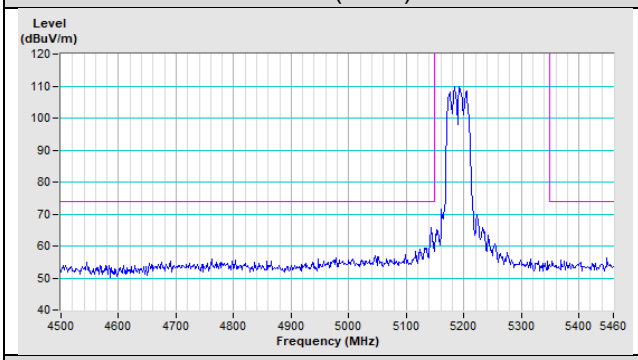
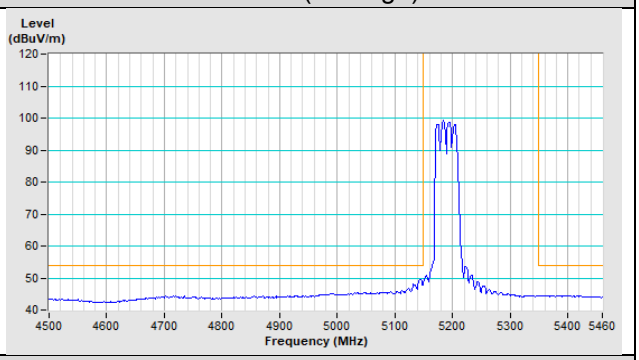
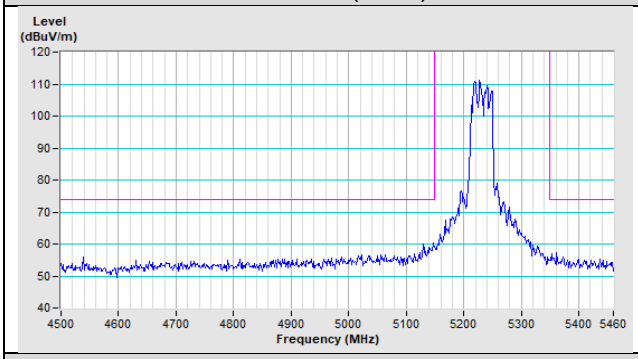
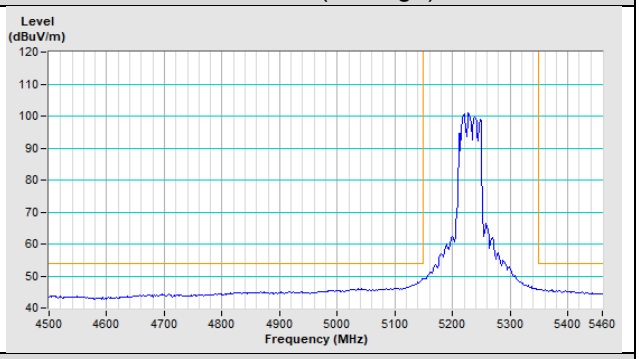
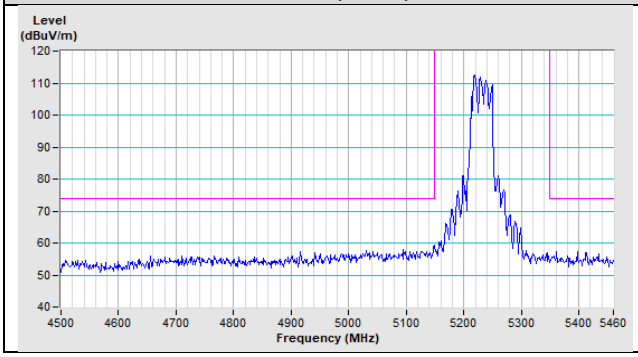
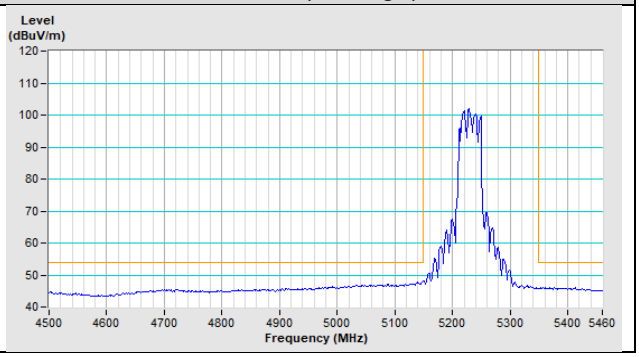
802.11a Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

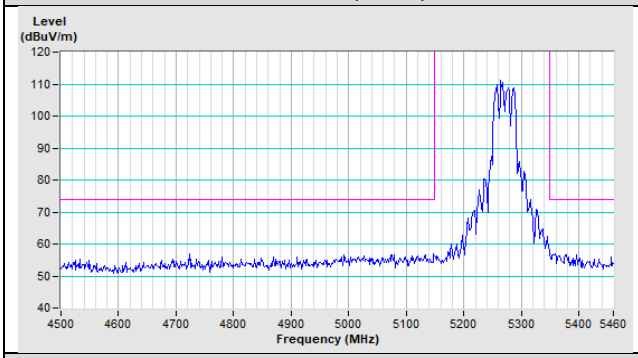
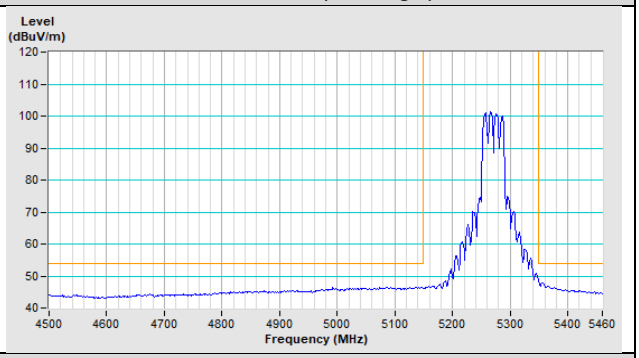
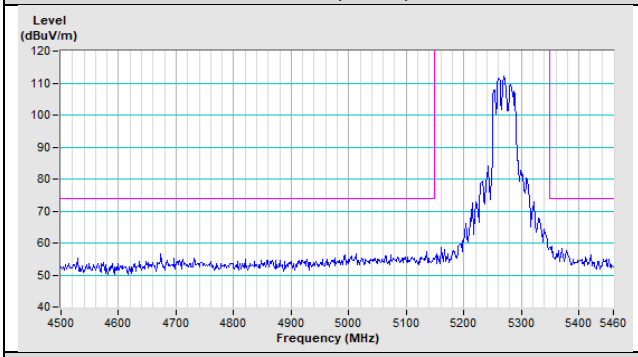
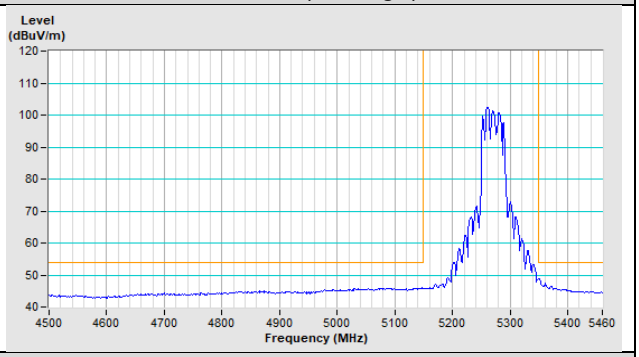
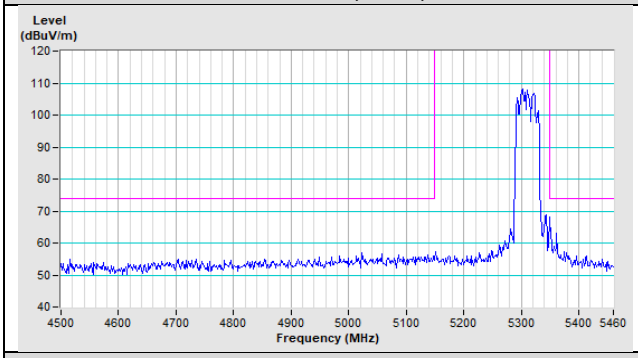
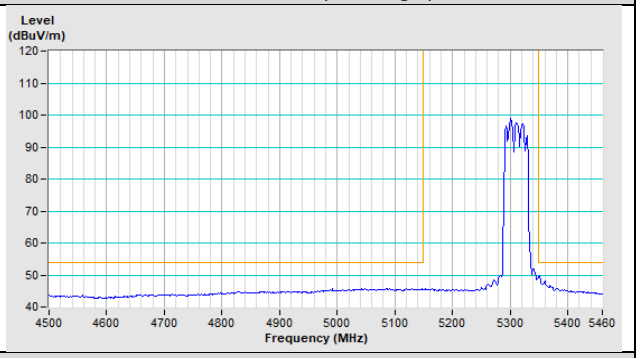
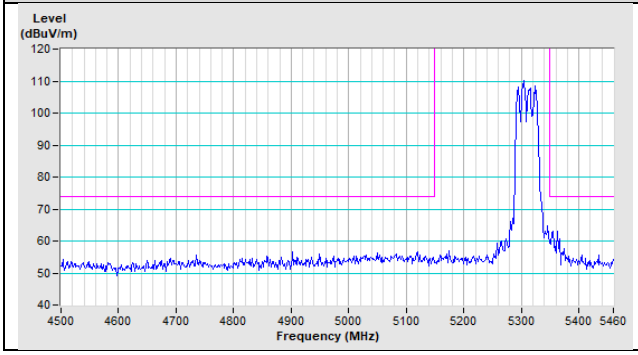
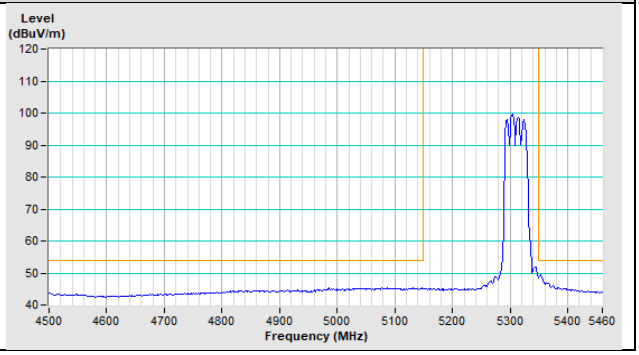
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 140	
Horizontal (Peak)	Vertical (Peak)
	

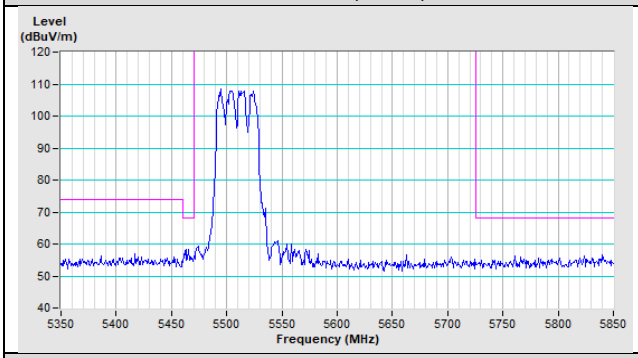
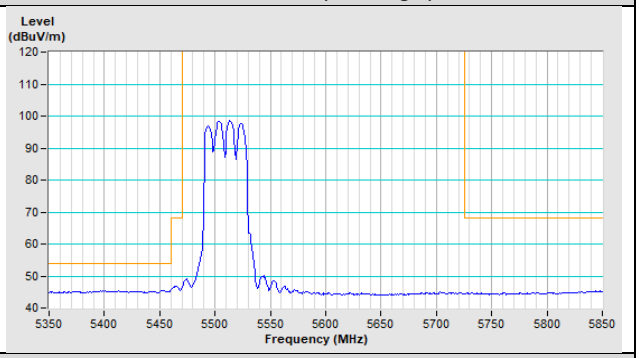
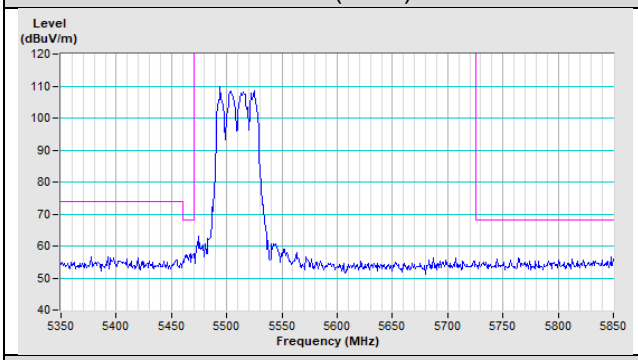
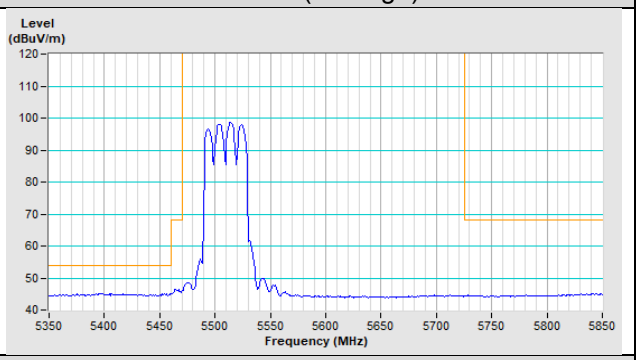
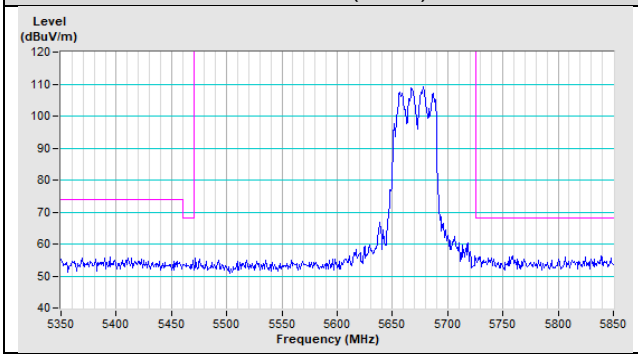
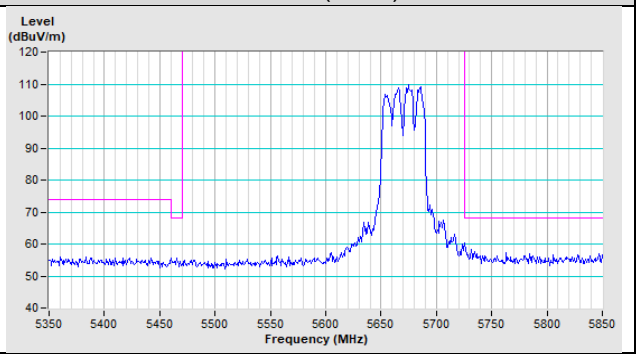
802.11ax (HE20) Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 48	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

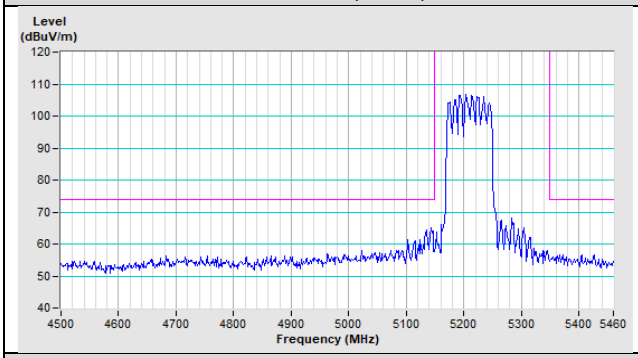
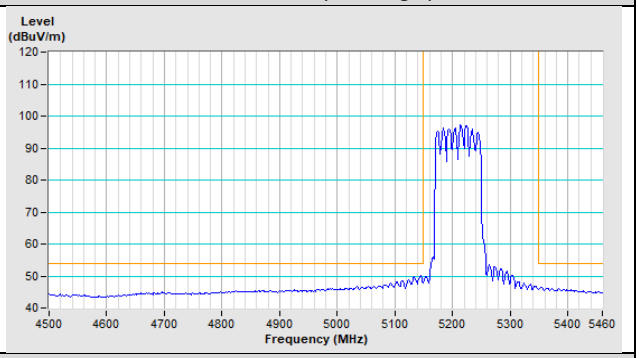
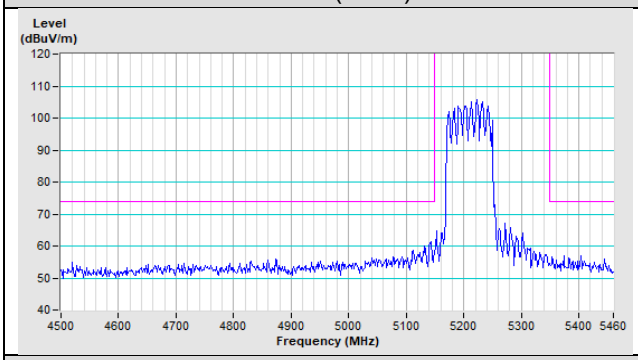
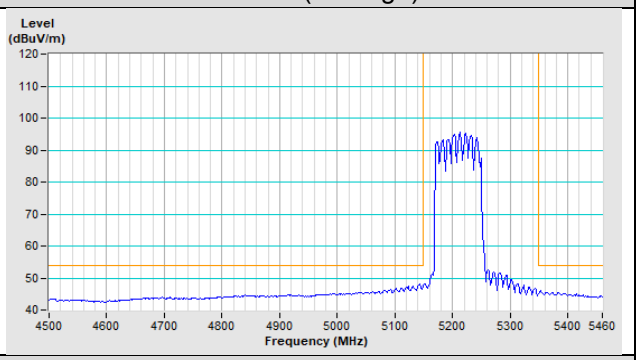
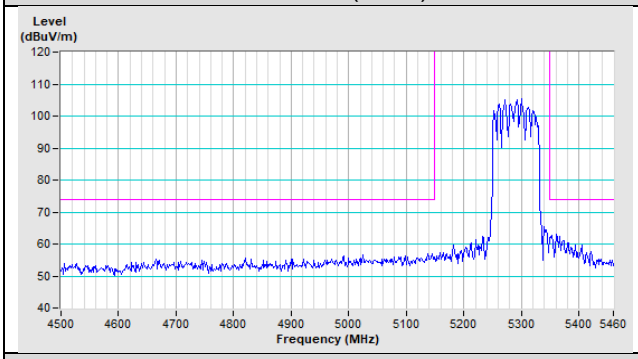
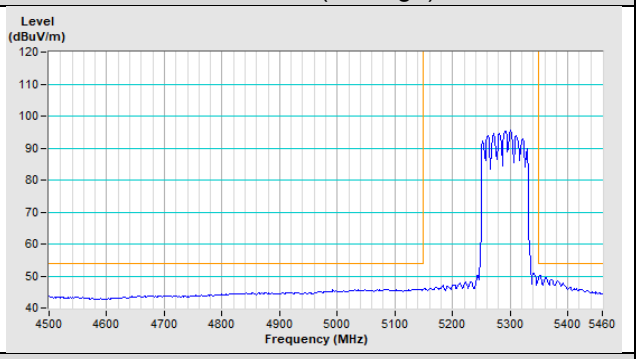
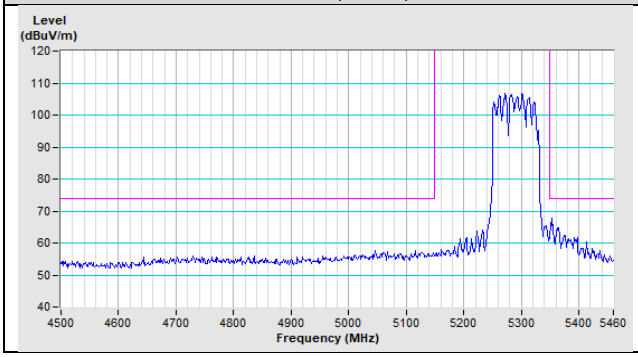
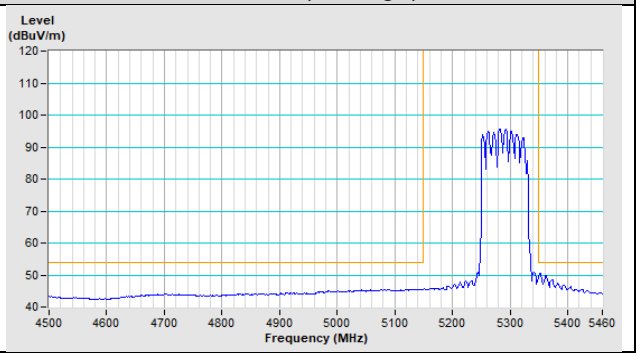
802.11ax (HE20) Channel 56	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

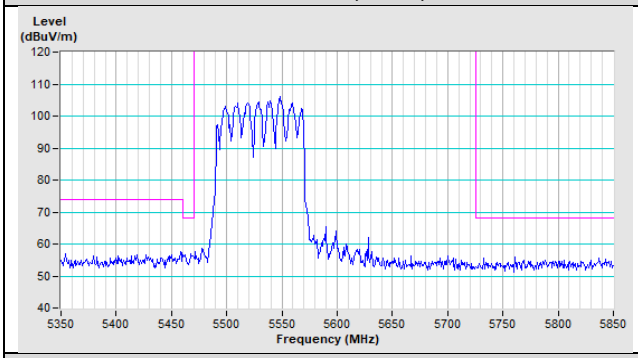
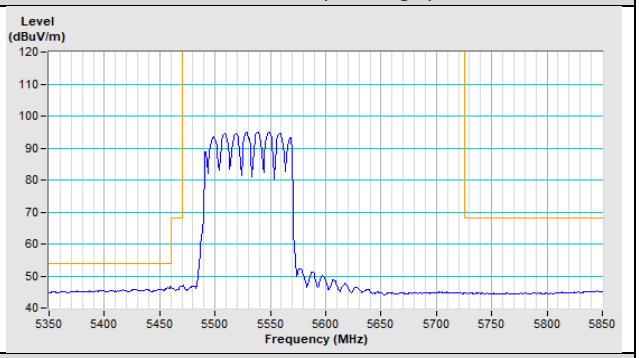
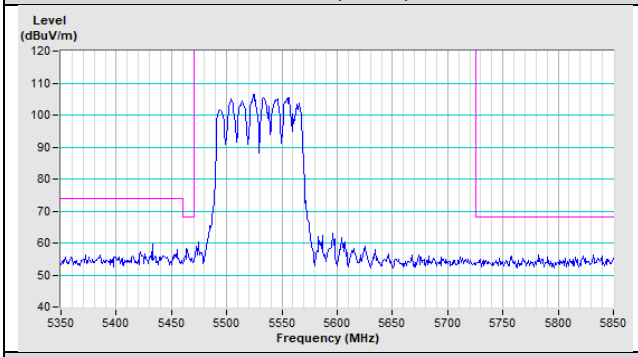
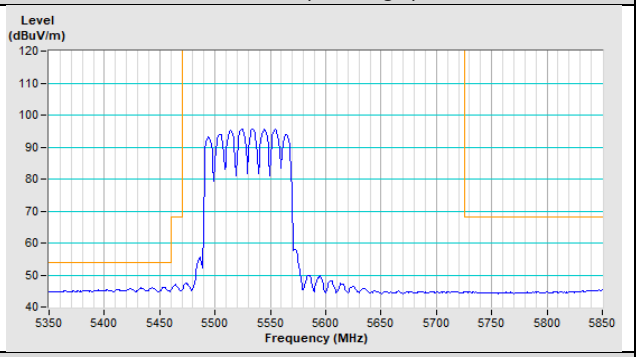
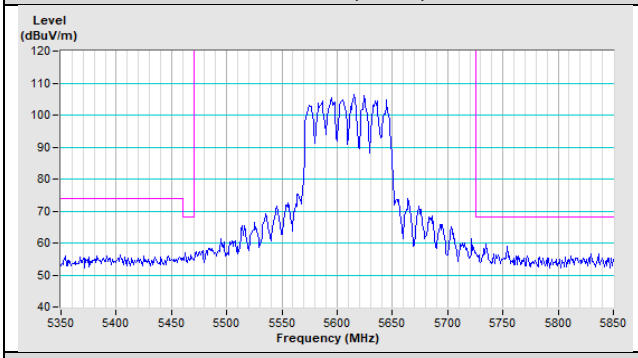
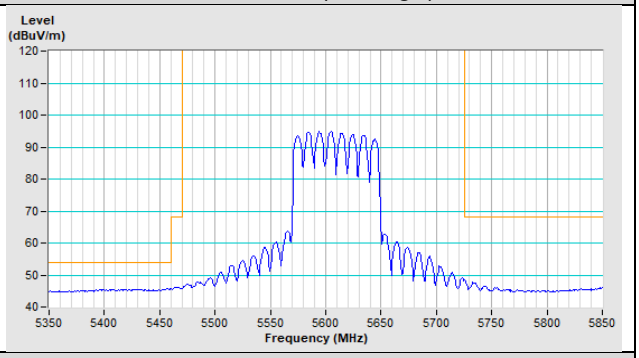
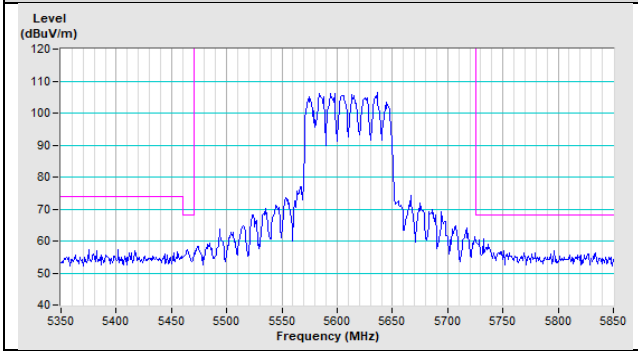
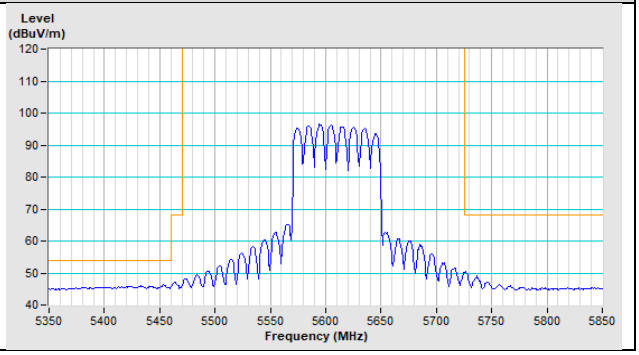
802.11ax (HE20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 140	
Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE40) Channel 38	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE40) Channel 46	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

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)	Vertical (Peak)
	

802.11ax (HE80) Channel 42	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
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)
	

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.

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

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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