

FCC Test Report

Report No.: RFBDIS-WTW-P20110362A

FCC ID: TVE-3617T01066

Test Model: FAP-234F

Series Model: FortiAP 234Fxxxxxx, FAP-234Fxxxxxx, FORTIAP-234Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Received Date: Nov. 11, 2020

Test Date: Dec. 31, 2020 ~ Mar. 08, 2021

Issued Date: Mar. 22, 2021

Applicant: Fortinet Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RFBDYS-WTW-P20110362A	Original release	Mar. 22, 2021

1 Certificate of Conformity

Product: Secured Wireless Access Point

Brand: Fortinet

Test Model: FAP-234F

Series Model: FortiAP 234Fxxxxxx, FAP-234Fxxxxxx, FORTIAP-234Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Sample Status: Engineering sample

Applicant: Fortinet Inc.

Test Date: Dec. 31, 2020 ~ Mar. 08, 2021

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Mar. 22, 2021
Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Mar. 22, 2021
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.21dB at 0.47400MHz.
15.407(b)(1/2/3/4(i/ii)/8)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.4dB at 60.93MHz and 59.92MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is IPEX not a standard connector.

Note:

- For U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
- 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	Secured Wireless Access Point
Brand	Fortinet
Test Model	FAP-234F
Series Model	FortiAP 234Fxxxxxx, FAP-234Fxxxxxx, FORTIAP-234Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)
Model Difference	Refer to note
Sample Status	Engineering sample
Power Supply Rating	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 (HT20/40): up to MCS7 802.11ac (VHT20/40): up to MCS9 802.11ax: up to MCS11
Operating Frequency	5260 ~ 5320MHz, 5500 ~ 5720MHz
Number of Channel	<p>5G traffic radio (Radio 2): 5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6 802.11ac (VHT80), 802.11ax (HE80): 3</p> <p>Scanning radio (Radio 3): 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 12 802.11n (HT40), 802.11ac (VHT40): 6 802.11ac (VHT80): 3</p>

Output Power	<p>5G traffic radio (Radio 2):</p> <p>CDD Mode:</p> <p>5260 ~ 5320MHz: 95.177mW</p> <p>5500 ~ 5720MHz: 94.147mW</p> <p>Beamforming Mode:</p> <p>5260 ~ 5320MHz: 47.592mW</p> <p>5500 ~ 5720MHz: 47.077mW</p> <p>Scanning radio (Radio 3):</p> <p>CDD Mode:</p> <p>5260 ~ 5320MHz: 138.995mW</p> <p>5500 ~ 5720MHz: 112.980mW</p>
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	POE
Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the original report (BV CPS report no.: RFB DYS-WTW-P20110362-1) is adding 5.26GHz to 5.32GHz and 5.50GHz to 5.72GHz by software.
2. The following models are provided to this EUT. The model FAP-234F was chosen for final test.

Brand	Model	Description
Fortinet	FAP-234F	Series model for marketing purpose
	FortiAP 234Fxxxxxx, FAP-234Fxxxxxx, FORTIAP-234Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)	

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

Radio	Modulation Mode	Beamforming Mode	TX Function
5G traffic radio (Radio 2)	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
Scanning radio (Radio 3)	802.11a	Not Support	1TX
	802.11n (HT20)	Not Support	1TX
	802.11n (HT40)	Not Support	1TX
	802.11ac (VHT20)	Not Support	1TX
	802.11ac (VHT40)	Not Support	1TX
	802.11ac (VHT80)	Not Support	1TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40/VHT80 on 802.11ac mode and HE20/HE40/HE80 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n, 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.

4. The EUT consumes power from the following POEs.

POE 1	
Brand	SENAO
Model	EPA5006GPR
Input Power	100-240Vac, 50-60Hz, 0.8A
Output Power	54Vdc, 0.6A

POE 2 (Optional)	
Brand	SENAO
Model	EPA5006GP
Input Power	100-240Vac, 50-60Hz, 0.8A
Output Power	54Vdc, 0.6A

5. The following antennas were provided to the EUT.

No.	Type	Connector	Gain (dBi)						Remark
			2400MHz	2450MHz	2500MHz	5150MHz	5500MHz	5850MHz	
1	Patch Array	IPEX	9.47	10.20	10.16	-	-	-	2G traffic radio (Radio 1)
2	Patch Array	IPEX	9.24	10.25	9.73	-	-	-	
3	Patch Array	IPEX	-	-	-	9.75	9.94	10.02	5G traffic radio (Radio 2)
4	Patch Array	IPEX	-	-	-	9.81	10.17	10.02	
5	Dipole	IPEX	4.25	4.99	4.15	-	-	-	BT LE / Zigbee
6	Dipole	IPEX	3.38	3.38	3.84	4.92	4.54	4.80	Scanning radio (Radio 3)

* 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.

6. The simultaneous operation mode was determined by client.

No	Mode
1	2G traffic radio (Radio 1) + 5GHz traffic radio (Radio 2) + 5G Scanning radio (Radio 3) + BLE
2	2G traffic radio (Radio 1) + 5GHz traffic radio (Radio 2) + 5G Scanning radio (Radio 3) + Zigbee
3	5GHz traffic radio (Radio 2) + 2G Scanning radio (Radio 3) + BLE
4	5GHz traffic radio (Radio 2) + 2G Scanning radio (Radio 3) + Zigbee

* 5GHz traffic radio (Radio 2) and 5G Scanning radio (Radio 3) cannot transmit in the same band at same time. 2G traffic radio (Radio 1) and 2G Scanning radio (Radio 3) cannot transmit at same time.

* Zigbee and BT technologies cannot transmit at same time.

* Spurious emission of the simultaneous operation has been evaluated and no non-compliance was found.

3.2 Description of Test Modes

For 5260 ~ 5320MHz:

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290MHz

For 5500 ~ 5720MHz:

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

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

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

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

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

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE \geq 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

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

Note:

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

Radiated Emission Test (Above 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	Radio 2
	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	
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0	
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0	
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0	
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0	
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	Radio 3
	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	
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0	
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	6.5	
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5	
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	29.3	

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)	Remark
-	802.11ax (HE20)	5260-5320	52 to 64	60	OFDMA	MCS0	Radio 2
-	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0	
-	802.11ac (VHT20)	5260-5320	52 to 64	60	OFDM	6.5	Radio 3
-	802.11ac (VHT20)	5500-5720	100 to 144		OFDM	6.5	

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)	Remark
-	802.11ax (HE20)	5260-5320	52 to 64	60	OFDMA	MCS0	Radio 2
-	802.11ax (HE20)	5500-5720	100 to 144		OFDMA	MCS0	
-	802.11ac (VHT20)	5260-5320	52 to 64	60	OFDM	6.5	Radio 3
-	802.11ac (VHT20)	5500-5720	100 to 144		OFDM	6.5	

Antenna Port Conducted 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)	Remark
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	Radio 2
	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	
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0	Radio 2
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	6.5	
	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	13.5	
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	6.5	
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5	
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	29.3	
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0	
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0	
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0	
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	Radio 3
	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	
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0	Radio 3
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	6.5	
	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	13.5	
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	6.5	
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	13.5	
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	29.3	

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \geq 1G	23 deg. C, 67% RH	54Vdc	Edison Lee Titan Hsu
RE<1G	23 deg. C, 66% RH	54Vdc	Titan Hsu
PLC	25 deg. C, 75% RH	54Vdc	Rex Wang
APCM	25 deg. C, 60% RH	54Vdc	Jisyong Wang

3.3 Duty Cycle of Test Signal

5G traffic radio (Radio 2)

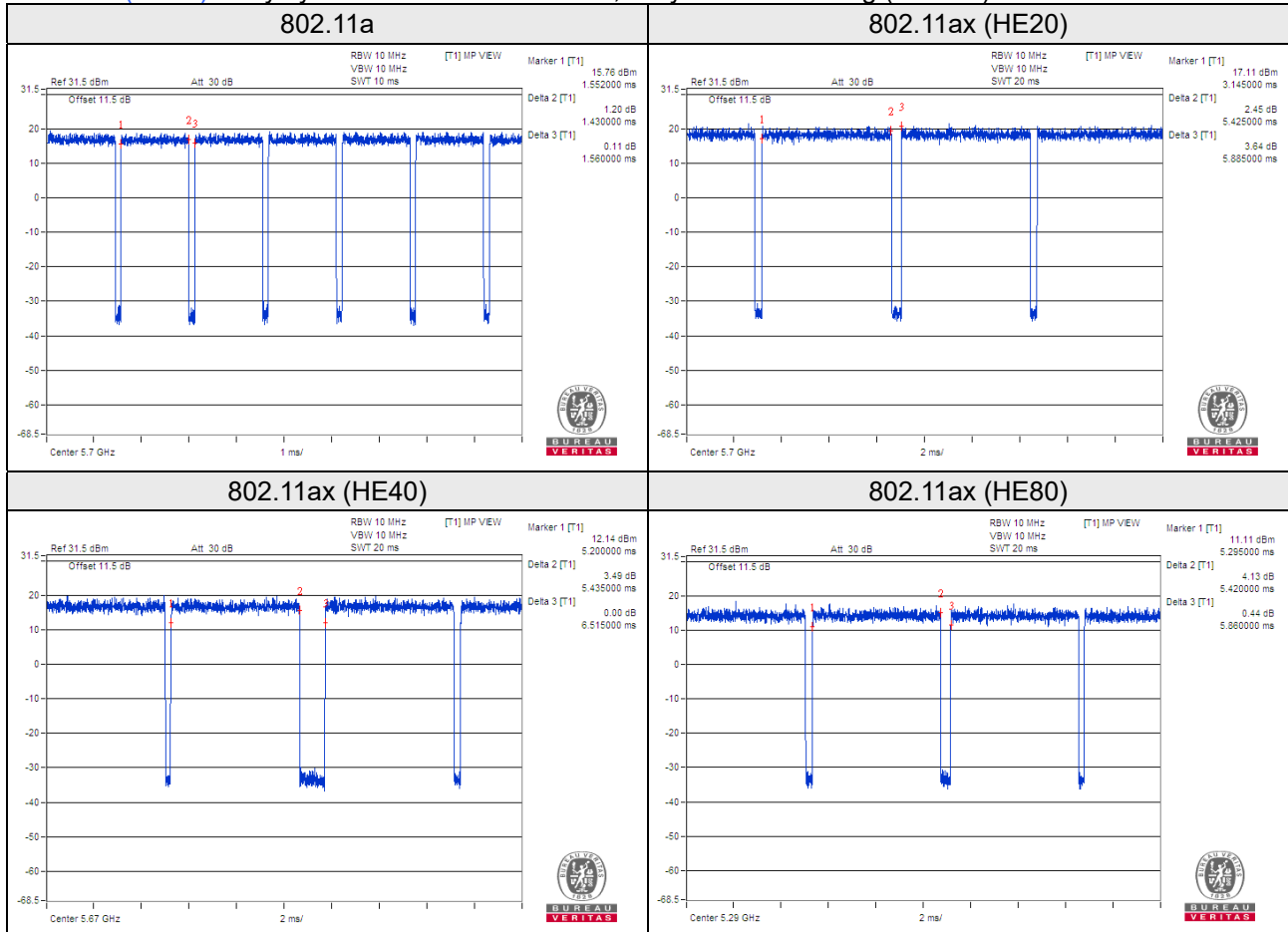
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = $1.430/1.560 = 0.917$, Duty factor = $10 * \log(1/0.917) = 0.38$

802.11ax (HE20): Duty cycle = $5.425/5.885 = 0.922$, Duty factor = $10 * \log(1/0.922) = 0.35$

802.11ax (HE40): Duty cycle = $5.435/6.515 = 0.834$, Duty factor = $10 * \log(1/0.834) = 0.79$

802.11ax (HE80): Duty cycle = $5.420/5.860 = 0.925$, Duty factor = $10 * \log(1/0.925) = 0.34$



Scanning radio (Radio 3)

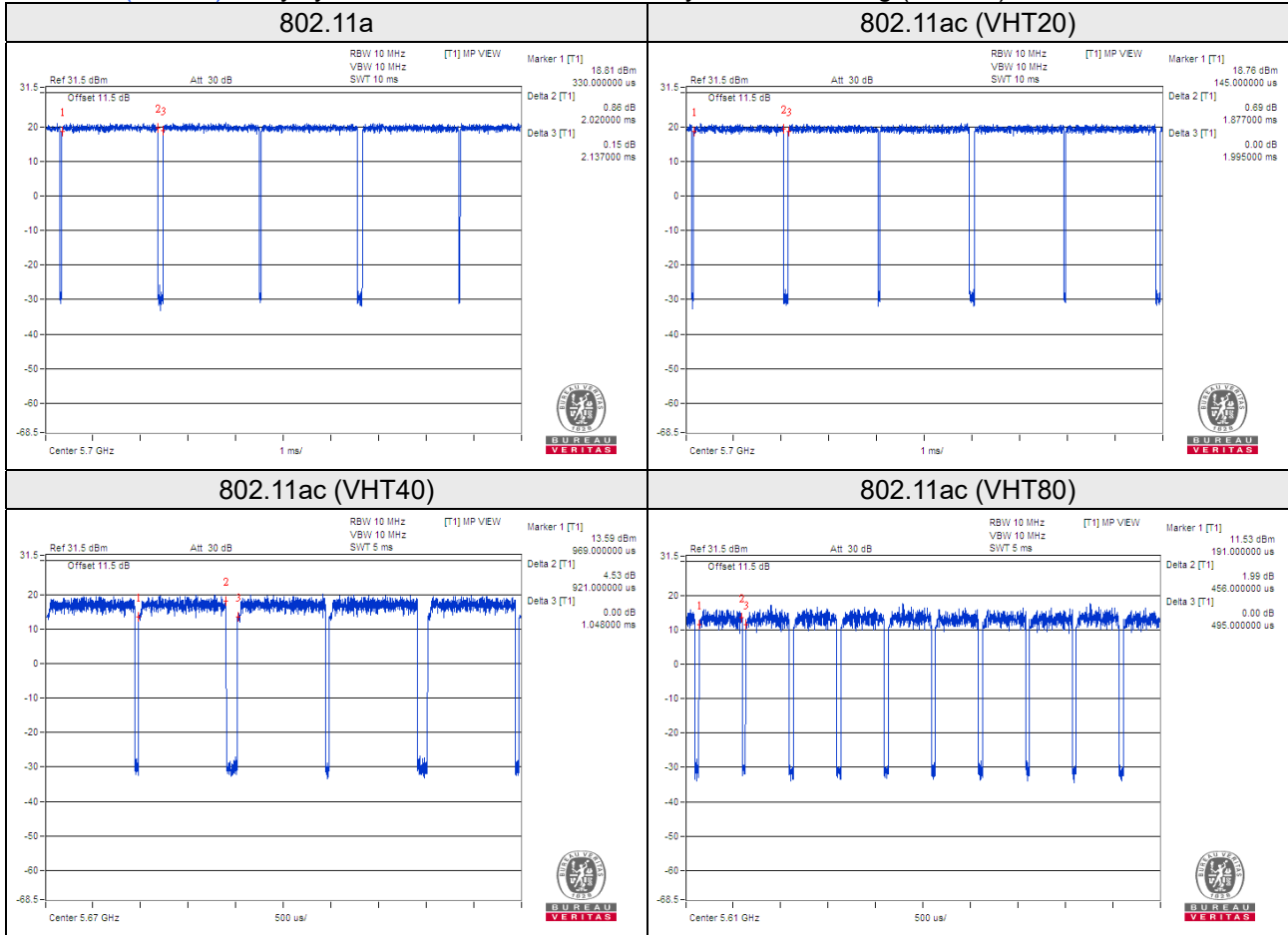
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = $2.020/2.137 = 0.945$, Duty factor = $10 * \log(1/0.945) = 0.24$

802.11ac (VHT20): Duty cycle = $1.877/1.995 = 0.941$, Duty factor = $10 * \log(1/0.941) = 0.26$

802.11ac (VHT40): Duty cycle = $0.921/1.048 = 0.879$, Duty factor = $10 * \log(1/0.879) = 0.56$

802.11ac (VHT80): Duty cycle = $0.456/0.495 = 0.921$, Duty factor = $10 * \log(1/0.921) = 0.36$



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.

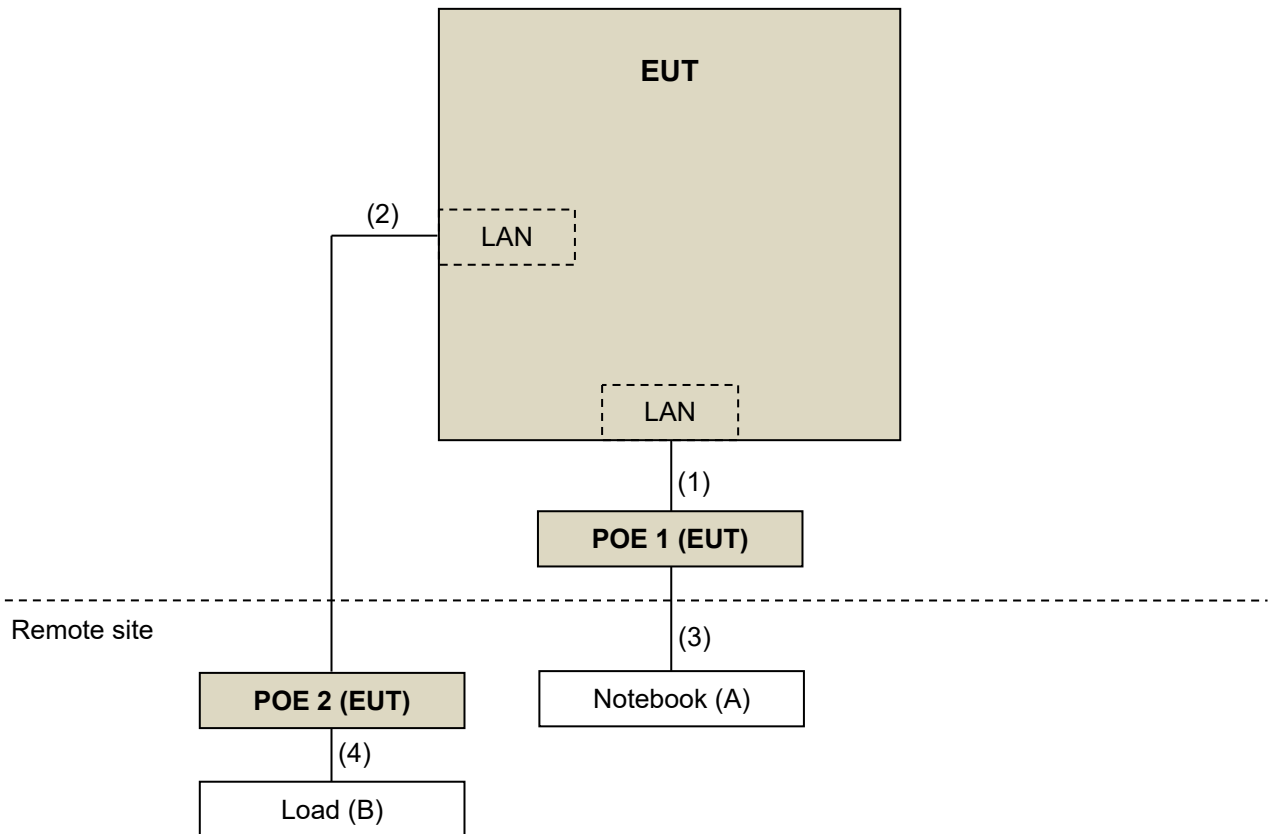
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Load	NA	NA	NA	NA	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN	1	1.5	N	0	RJ45, Cat5e
2.	LAN	1	1.5	N	0	RJ45, Cat5e
3.	LAN	1	7	N	0	RJ45, Cat5e
4.	LAN	1	1.5	N	0	RJ45, Cat5e

3.4.1 Configuration of System under Test



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

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

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102579	Jul. 07, 2020	Jul. 06, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 09, 2020	Jun. 08, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 04, 2020	Nov. 03, 2021
HORN Antenna SCHWARZBECK	9120D	209	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna TESEQ	HLA 6121	45745	Jul. 06, 2020	Jul. 05, 2021
Preamplifier Agilent (Below 1GHz)	8447D	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. 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:

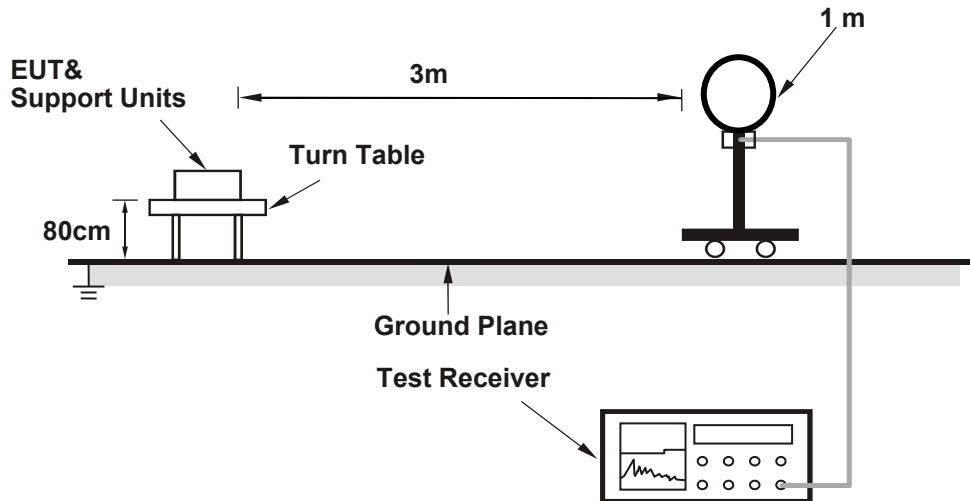
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5G traffic radio (Radio 2)
(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)
Scanning radio (Radio 3)
(802.11a: RBW = 1MHz, VBW = 1kHz; 802.11ac (VHT20): RBW = 1MHz, VBW = 1kHz; 802.11ac (VHT40): RBW = 1MHz, VBW = 3kHz; 802.11ac (VHT80): RBW = 1MHz, VBW = 3kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

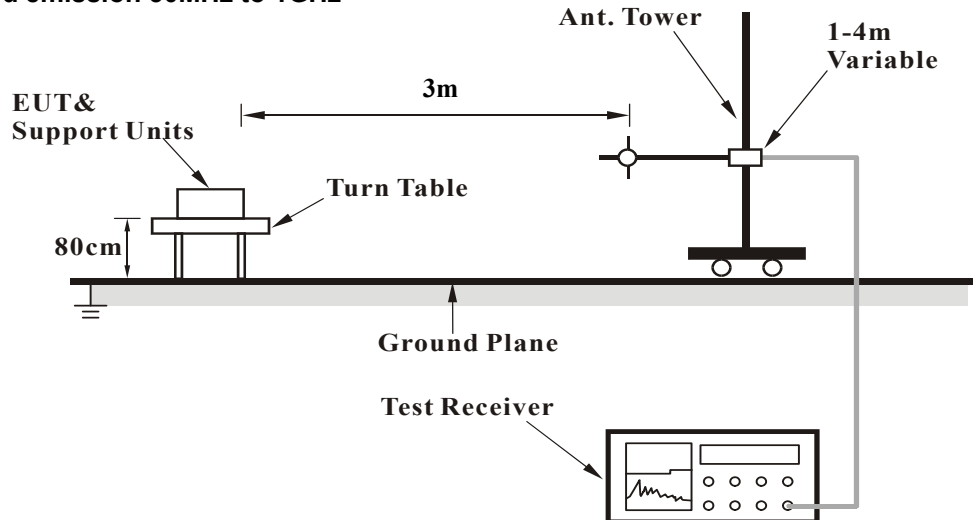
No deviation.

4.1.5 Test Setup

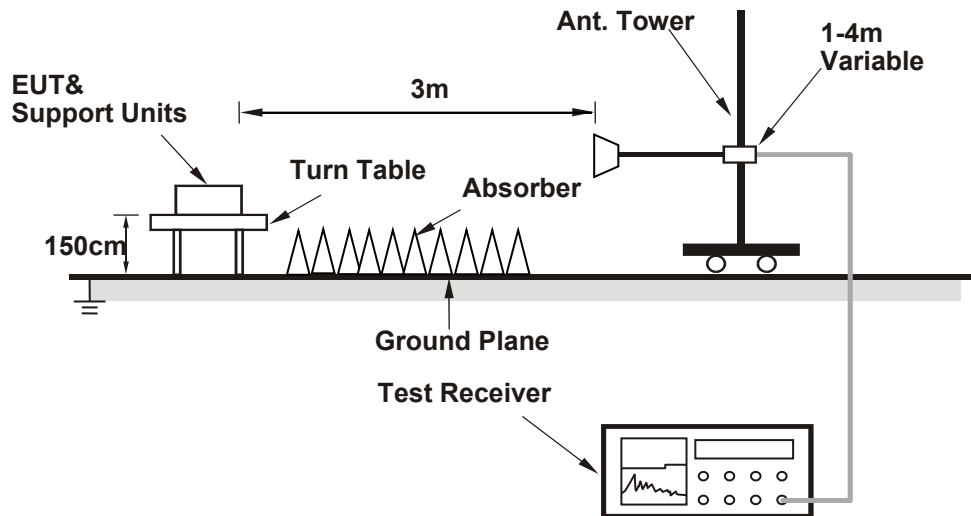
For Radiated emission below 30MHz



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:

5G traffic radio (Radio 2)

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	59.0 PK	74.0	-15.0	1.79 H	352	52.4	6.6
2	5150.00	46.2 AV	54.0	-7.8	1.79 H	352	39.6	6.6
3	*5260.00	120.0 PK			1.72 H	344	78.1	41.9
4	*5260.00	109.6 AV			1.72 H	344	67.7	41.9
5	#10520.00	60.2 PK	68.2	-8.0	1.88 H	261	42.6	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	5150.00	58.3 PK	74.0	-15.7	1.65 V	351	51.7	6.6
2	5150.00	45.6 AV	54.0	-8.4	1.65 V	351	39.0	6.6
3	*5260.00	116.7 PK			1.82 V	345	74.8	41.9
4	*5260.00	106.8 AV			1.82 V	345	64.9	41.9
5	#10520.00	59.9 PK	68.2	-8.3	1.55 V	19	42.3	17.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
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	120.4 PK			1.83 H	342	78.5	41.9
2	*5300.00	110.1 AV			1.83 H	342	68.2	41.9
3	10600.00	59.7 PK	74.0	-14.3	1.83 H	3	42.5	17.2
4	10600.00	47.7 AV	54.0	-6.3	1.83 H	3	30.5	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	*5300.00	117.5 PK			1.67 V	346	75.6	41.9
2	*5300.00	107.5 AV			1.67 V	346	65.6	41.9
3	10600.00	59.7 PK	74.0	-14.3	1.59 V	18	42.5	17.2
4	10600.00	47.7 AV	54.0	-6.3	1.59 V	18	30.5	17.2

Remarks:

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

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	119.0 PK			1.65 H	344	77.0	42.0
2	*5320.00	108.1 AV			1.65 H	344	66.1	42.0
3	5350.00	59.7 PK	74.0	-14.3	1.57 H	345	53.3	6.4
4	5350.00	47.9 AV	54.0	-6.1	1.57 H	345	41.5	6.4
5	10640.00	60.4 PK	74.0	-13.6	1.61 H	19	43.0	17.4
6	10640.00	46.3 AV	54.0	-7.7	1.61 H	19	28.9	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	*5320.00	116.5 PK			1.61 V	345	74.5	42.0
2	*5320.00	106.4 AV			1.61 V	345	64.4	42.0
3	5350.00	58.2 PK	74.0	-15.8	1.56 V	337	51.8	6.4
4	5350.00	45.5 AV	54.0	-8.5	1.56 V	337	39.1	6.4
5	10640.00	59.6 PK	74.0	-14.4	1.60 V	19	42.2	17.4
6	10640.00	48.1 AV	54.0	-5.9	1.60 V	19	30.7	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.

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	58.3 PK	74.0	-15.7	1.69 H	346	52.0	6.3
2	5460.00	46.9 AV	54.0	-7.1	1.69 H	346	40.6	6.3
3	#5470.00	58.1 PK	68.2	-10.1	1.63 H	349	51.8	6.3
4	*5500.00	119.6 PK			1.67 H	345	77.5	42.1
5	*5500.00	109.2 AV			1.67 H	345	67.1	42.1
6	11000.00	60.8 PK	74.0	-13.2	1.49 H	324	42.2	18.6
7	11000.00	52.6 AV	54.0	-1.4	1.49 H	324	34.0	18.6
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	5460.00	57.5 PK	74.0	-16.5	1.45 V	358	51.2	6.3
2	5460.00	44.8 AV	54.0	-9.2	1.45 V	358	38.5	6.3
3	#5470.00	57.9 PK	68.2	-10.3	1.43 V	355	51.6	6.3
4	*5500.00	117.2 PK			1.54 V	348	75.1	42.1
5	*5500.00	107.3 AV			1.54 V	348	65.2	42.1
6	11000.00	60.9 PK	74.0	-13.1	1.38 V	15	42.3	18.6
7	11000.00	52.5 AV	54.0	-1.5	1.38 V	15	33.9	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
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	119.8 PK			1.71 H	342	77.7	42.1
2	*5580.00	109.4 AV			1.71 H	342	67.3	42.1
3	11160.00	61.0 PK	74.0	-13.0	1.86 H	27	42.5	18.5
4	11160.00	46.5 AV	54.0	-7.5	1.86 H	27	28.0	18.5
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	*5580.00	117.9 PK			1.63 V	348	75.8	42.1
2	*5580.00	107.3 AV			1.63 V	348	65.2	42.1
3	11160.00	60.9 PK	74.0	-13.1	2.67 V	325	42.4	18.5
4	11160.00	49.2 AV	54.0	-4.8	2.67 V	325	30.7	18.5

Remarks:

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

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	119.7 PK			1.62 H	345	77.4	42.3
2	*5700.00	109.3 AV			1.62 H	345	67.0	42.3
3	#5725.00	59.9 PK	68.2	-8.3	1.69 H	341	53.4	6.5
4	11400.00	60.2 PK	74.0	-13.8	1.97 H	18	42.3	17.9
5	11400.00	46.6 AV	54.0	-7.4	1.97 H	18	28.7	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	*5700.00	117.7 PK			1.52 V	351	75.4	42.3
2	*5700.00	107.5 AV			1.52 V	351	65.2	42.3
3	#5725.00	48.7 PK	68.2	-19.5	1.65 V	347	42.2	6.5
4	11400.00	59.7 PK	74.0	-14.3	3.12 V	299	41.8	17.9
5	11400.00	46.8 AV	54.0	-7.2	3.12 V	299	28.9	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 802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	1.55 H	352	51.5	6.3
2	*5720.00	119.9 PK			1.51 H	359	77.7	42.2
3	*5720.00	109.5 AV			1.51 H	359	67.3	42.2
4	#5850.00	58.1 PK	68.2	-10.1	1.57 H	355	51.3	6.8
5	11440.00	59.5 PK	74.0	-14.5	1.46 H	334	41.5	18.0
6	11440.00	47.4 AV	54.0	-6.6	1.46 H	334	29.4	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	#5470.00	58.0 PK	68.2	-10.2	1.55 V	342	51.7	6.3
2	*5720.00	118.5 PK			1.58 V	347	76.3	42.2
3	*5720.00	107.5 AV			1.58 V	347	65.3	42.2
4	#5850.00	58.3 PK	68.2	-9.9	1.52 V	345	51.5	6.8
5	11440.00	59.7 PK	74.0	-14.3	1.42 V	18	41.7	18.0
6	11440.00	46.8 AV	54.0	-7.2	1.42 V	18	28.8	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 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	59.1 PK	74.0	-14.9	1.79 H	355	52.5	6.6
2	5150.00	46.2 AV	54.0	-7.8	1.79 H	355	39.6	6.6
3	*5260.00	122.7 PK			1.70 H	346	80.8	41.9
4	*5260.00	108.9 AV			1.70 H	346	67.0	41.9
5	#10520.00	59.6 PK	68.2	-8.6	1.39 H	12	42.0	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	5150.00	58.4 PK	74.0	-15.6	1.55 V	338	51.8	6.6
2	5150.00	45.6 AV	54.0	-8.4	1.55 V	338	39.0	6.6
3	*5260.00	120.0 PK			1.63 V	347	78.1	41.9
4	*5260.00	106.0 AV			1.63 V	347	64.1	41.9
5	#10520.00	59.9 PK	68.2	-8.3	1.52 V	17	42.3	17.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
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	122.9 PK			1.72 H	342	81.0	41.9
2	*5300.00	109.5 AV			1.72 H	342	67.6	41.9
3	10600.00	59.4 PK	74.0	-14.6	1.79 H	4	42.2	17.2
4	10600.00	47.9 AV	54.0	-6.1	1.79 H	4	30.7	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	*5300.00	120.5 PK			1.55 V	344	78.6	41.9
2	*5300.00	106.6 AV			1.55 V	344	64.7	41.9
3	10600.00	59.4 PK	74.0	-14.6	1.65 V	22	42.2	17.2
4	10600.00	46.1 AV	54.0	-7.9	1.65 V	22	28.9	17.2

Remarks:

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

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	121.4 PK			1.80 H	343	79.4	42.0
2	*5320.00	107.3 AV			1.80 H	343	65.3	42.0
3	5350.00	60.2 PK	74.0	-13.8	1.89 H	349	53.8	6.4
4	5350.00	47.7 AV	54.0	-6.3	1.89 H	349	41.3	6.4
5	10640.00	59.9 PK	74.0	-14.1	1.80 H	4	42.5	17.4
6	10640.00	48.2 AV	54.0	-5.8	1.80 H	4	30.8	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	*5320.00	119.6 PK			1.73 V	345	77.6	42.0
2	*5320.00	106.0 AV			1.73 V	345	64.0	42.0
3	5350.00	58.7 PK	74.0	-15.3	1.66 V	351	52.3	6.4
4	5350.00	45.5 AV	54.0	-8.5	1.66 V	351	39.1	6.4
5	10640.00	59.4 PK	74.0	-14.6	1.59 V	18	42.0	17.4
6	10640.00	46.4 AV	54.0	-7.6	1.59 V	18	29.0	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.

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	1.66 H	337	51.7	6.3
2	5460.00	47.0 AV	54.0	-7.0	1.66 H	337	40.7	6.3
3	#5470.00	58.8 PK	68.2	-9.4	1.65 H	346	52.5	6.3
4	*5500.00	122.1 PK			1.72 H	342	80.0	42.1
5	*5500.00	108.6 AV			1.72 H	342	66.5	42.1
6	11000.00	60.5 PK	74.0	-13.5	1.48 H	326	41.9	18.6
7	11000.00	50.9 AV	54.0	-3.1	1.48 H	326	32.3	18.6
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	5460.00	57.6 PK	74.0	-16.4	1.53 V	342	51.3	6.3
2	5460.00	44.9 AV	54.0	-9.1	1.53 V	342	38.6	6.3
3	#5470.00	58.0 PK	68.2	-10.2	1.58 V	344	51.7	6.3
4	*5500.00	119.0 PK			1.60 V	347	76.9	42.1
5	*5500.00	106.3 AV			1.60 V	347	64.2	42.1
6	11000.00	60.2 PK	74.0	-13.8	1.55 V	356	41.6	18.6
7	11000.00	50.7 AV	54.0	-3.3	1.55 V	356	32.1	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	122.8 PK			1.65 H	344	80.7	42.1
2	*5580.00	108.7 AV			1.65 H	344	66.6	42.1
3	11160.00	60.6 PK	74.0	-13.4	1.93 H	15	42.1	18.5
4	11160.00	47.1 AV	54.0	-6.9	1.93 H	15	28.6	18.5
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	*5580.00	119.7 PK			1.58 V	345	77.6	42.1
2	*5580.00	106.4 AV			1.58 V	345	64.3	42.1
3	11160.00	60.0 PK	74.0	-14.0	2.06 V	359	41.5	18.5
4	11160.00	46.8 AV	54.0	-7.2	2.06 V	359	28.3	18.5

Remarks:

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

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	122.7 PK			1.66 H	355	80.4	42.3
2	*5700.00	109.4 AV			1.66 H	355	67.1	42.3
3	#5725.00	62.5 PK	68.2	-5.7	1.69 H	354	56.0	6.5
4	11400.00	60.2 PK	74.0	-13.8	1.74 H	17	42.3	17.9
5	11400.00	46.5 AV	54.0	-7.5	1.74 H	17	28.6	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	*5700.00	120.3 PK			1.58 V	346	78.0	42.3
2	*5700.00	106.7 AV			1.58 V	346	64.4	42.3
3	#5725.00	60.4 PK	68.2	-7.8	1.61 V	350	53.9	6.5
4	11400.00	59.9 PK	74.0	-14.1	1.38 V	21	42.0	17.9
5	11400.00	46.7 AV	54.0	-7.3	1.38 V	21	28.8	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 (HE20)	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.9 PK	68.2	-10.3	1.59 H	355	51.6	6.3
2	*5720.00	121.6 PK			1.62 H	358	79.4	42.2
3	*5720.00	108.9 AV			1.62 H	358	66.7	42.2
4	#5850.00	58.3 PK	68.2	-9.9	1.55 H	354	51.5	6.8
5	11440.00	59.5 PK	74.0	-14.5	1.47 H	334	41.5	18.0
6	11440.00	47.0 AV	54.0	-7.0	1.47 H	334	29.0	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	#5470.00	58.0 PK	68.2	-10.2	1.52 V	348	51.7	6.3
2	*5720.00	119.5 PK			1.50 V	346	77.3	42.2
3	*5720.00	106.8 AV			1.50 V	346	64.6	42.2
4	#5850.00	58.4 PK	68.2	-9.8	1.55 V	347	51.6	6.8
5	11440.00	59.8 PK	74.0	-14.2	1.44 V	15	41.8	18.0
6	11440.00	46.5 AV	54.0	-7.5	1.44 V	15	28.5	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 802.11ax (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	5150.00	59.0 PK	74.0	-15.0	1.85 H	346	52.4	6.6
2	5150.00	45.9 AV	54.0	-8.1	1.85 H	346	39.3	6.6
3	*5270.00	119.7 PK			1.78 H	342	77.8	41.9
4	*5270.00	106.6 AV			1.78 H	342	64.7	41.9
5	#10540.00	59.5 PK	68.2	-8.7	1.32 H	16	41.9	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	5150.00	58.8 PK	74.0	-15.2	1.65 V	349	52.2	6.6
2	5150.00	45.6 AV	54.0	-8.4	1.65 V	349	39.0	6.6
3	*5270.00	117.1 PK			1.58 V	346	75.2	41.9
4	*5270.00	104.2 AV			1.58 V	346	62.3	41.9
5	#10540.00	60.3 PK	68.2	-7.9	1.64 V	15	42.7	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 802.11ax (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	118.9 PK			1.71 H	342	76.9	42.0
2	*5310.00	106.1 AV			1.71 H	342	64.1	42.0
3	5350.00	63.6 PK	74.0	-10.4	1.75 H	342	57.2	6.4
4	5350.00	50.7 AV	54.0	-3.3	1.75 H	342	44.3	6.4
5	10620.00	59.4 PK	74.0	-14.6	1.82 H	3	42.0	17.4
6	10620.00	48.1 AV	54.0	-5.9	1.82 H	3	30.7	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	*5310.00	116.7 PK			1.79 V	345	74.7	42.0
2	*5310.00	104.3 AV			1.79 V	345	62.3	42.0
3	5350.00	61.9 PK	74.0	-12.1	1.71 V	346	55.5	6.4
4	5350.00	49.0 AV	54.0	-5.0	1.71 V	346	42.6	6.4
5	10620.00	59.0 PK	74.0	-15.0	1.55 V	20	41.6	17.4
6	10620.00	47.9 AV	54.0	-6.1	1.55 V	20	30.5	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.

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	59.9 PK	74.0	-14.1	1.61 H	343	53.6	6.3
2	5460.00	47.2 AV	54.0	-6.8	1.61 H	343	40.9	6.3
3	#5470.00	62.6 PK	68.2	-5.6	1.64 H	345	56.3	6.3
4	*5510.00	119.2 PK			1.62 H	345	77.1	42.1
5	*5510.00	105.5 AV			1.62 H	345	63.4	42.1
6	11020.00	60.9 PK	74.0	-13.1	1.69 H	19	42.3	18.6
7	11020.00	50.4 AV	54.0	-3.6	1.69 H	19	31.8	18.6
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	5460.00	59.1 PK	74.0	-14.9	1.58 V	355	52.8	6.3
2	5460.00	47.2 AV	54.0	-6.8	1.58 V	355	40.9	6.3
3	#5470.00	59.5 PK	68.2	-8.7	1.63 V	342	53.2	6.3
4	*5510.00	116.6 PK			1.61 V	345	74.5	42.1
5	*5510.00	103.2 AV			1.61 V	345	61.1	42.1
6	11020.00	62.2 PK	74.0	-11.8	1.33 V	353	43.6	18.6
7	11020.00	51.4 AV	54.0	-2.6	1.33 V	353	32.8	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	119.6 PK			1.60 H	346	77.5	42.1
2	*5550.00	105.8 AV			1.60 H	346	63.7	42.1
3	11100.00	60.6 PK	74.0	-13.4	1.68 H	19	42.3	18.3
4	11100.00	46.7 AV	54.0	-7.3	1.68 H	19	28.4	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	*5550.00	116.1 PK			1.47 V	346	74.0	42.1
2	*5550.00	103.4 AV			1.47 V	346	61.3	42.1
3	11100.00	60.8 PK	74.0	-13.2	1.47 V	12	42.5	18.3
4	11100.00	48.5 AV	54.0	-5.5	1.47 V	12	30.2	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.

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	119.6 PK			1.56 H	354	77.4	42.2
2	*5670.00	105.8 AV			1.56 H	354	63.6	42.2
3	#5725.00	62.3 PK	68.2	-5.9	1.62 H	347	55.8	6.5
4	11340.00	60.3 PK	74.0	-13.7	1.72 H	13	42.2	18.1
5	11340.00	46.5 AV	54.0	-7.5	1.72 H	13	28.4	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	*5670.00	116.7 PK			1.49 V	349	74.5	42.2
2	*5670.00	103.5 AV			1.49 V	349	61.3	42.2
3	#5725.00	59.0 PK	68.2	-9.2	1.56 V	347	52.5	6.5
4	11340.00	60.3 PK	74.0	-13.7	1.38 V	26	42.2	18.1
5	11340.00	46.7 AV	54.0	-7.3	1.38 V	26	28.6	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 (HE40)	Channel	CH 142 : 5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	1.55 H	355	51.5	6.3
2	*5710.00	119.3 PK			1.53 H	358	77.0	42.3
3	*5710.00	106.4 AV			1.53 H	358	64.1	42.3
4	#5850.00	58.4 PK	68.2	-9.8	1.53 H	342	51.6	6.8
5	11420.00	59.4 PK	74.0	-14.6	1.58 H	346	41.5	17.9
6	11420.00	46.4 AV	54.0	-7.6	1.58 H	346	28.5	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	#5470.00	58.1 PK	68.2	-10.1	1.58 V	345	51.8	6.3
2	*5710.00	117.3 PK			1.60 V	348	75.0	42.3
3	*5710.00	104.6 AV			1.60 V	348	62.3	42.3
4	#5850.00	58.4 PK	68.2	-9.8	1.55 V	344	51.6	6.8
5	11420.00	59.6 PK	74.0	-14.4	1.35 V	18	41.7	17.9
6	11420.00	46.5 AV	54.0	-7.5	1.35 V	18	28.6	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 (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	59.1 PK	74.0	-14.9	1.69 H	355	52.5	6.6
2	5150.00	46.2 AV	54.0	-7.8	1.69 H	355	39.6	6.6
3	*5290.00	116.6 PK			1.88 H	342	74.7	41.9
4	*5290.00	104.2 AV			1.88 H	342	62.3	41.9
5	5350.00	66.7 PK	74.0	-7.3	1.76 H	340	60.3	6.4
6	5350.00	52.9 AV	54.0	-1.1	1.76 H	340	46.5	6.4
7	#10580.00	59.4 PK	68.2	-8.8	1.64 H	11	42.0	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	1.53 V	329	52.6	6.6
2	5150.00	45.8 AV	54.0	-8.2	1.53 V	329	39.2	6.6
3	*5290.00	115.5 PK			1.58 V	346	73.6	41.9
4	*5290.00	101.9 AV			1.58 V	346	60.0	41.9
5	5350.00	65.6 PK	74.0	-8.4	1.50 V	344	59.2	6.4
6	5350.00	52.1 AV	54.0	-1.9	1.50 V	344	45.7	6.4
7	#10580.00	59.2 PK	68.2	-9.0	1.52 V	21	41.8	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 (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	66.6 PK	74.0	-7.4	1.70 H	350	60.3	6.3
2	5460.00	52.3 AV	54.0	-1.7	1.70 H	350	46.0	6.3
3	#5470.00	67.2 PK	68.2	-1.0	1.74 H	344	60.9	6.3
4	*5530.00	116.3 PK			1.71 H	343	74.2	42.1
5	*5530.00	102.5 AV			1.71 H	343	60.4	42.1
6	#5725.00	58.6 PK	68.2	-9.6	1.67 H	326	52.1	6.5
7	11060.00	60.5 PK	74.0	-13.5	1.82 H	16	42.1	18.4
8	11060.00	46.7 AV	54.0	-7.3	1.82 H	16	28.3	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	64.7 PK	74.0	-9.3	1.54 V	339	58.4	6.3
2	5460.00	51.3 AV	54.0	-2.7	1.54 V	339	45.0	6.3
3	#5470.00	65.8 PK	68.2	-2.4	1.59 V	344	59.5	6.3
4	*5530.00	113.1 PK			1.67 V	345	71.0	42.1
5	*5530.00	100.1 AV			1.67 V	345	58.0	42.1
6	#5725.00	57.8 PK	68.2	-10.4	1.65 V	334	51.3	6.5
7	11060.00	60.7 PK	74.0	-13.3	1.37 V	19	42.3	18.4
8	11060.00	46.8 AV	54.0	-7.2	1.37 V	19	28.4	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 (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	59.2 PK	74.0	-14.8	1.49 H	344	52.9	6.3
2	5460.00	46.5 AV	54.0	-7.5	1.49 H	344	40.2	6.3
3	#5470.00	59.6 PK	68.2	-8.6	1.52 H	345	53.3	6.3
4	*5610.00	116.7 PK			1.57 H	343	74.6	42.1
5	*5610.00	103.5 AV			1.57 H	343	61.4	42.1
6	#5725.00	65.4 PK	68.2	-2.8	1.61 H	352	58.9	6.5
7	11220.00	60.3 PK	74.0	-13.7	1.51 H	338	41.8	18.5
8	11220.00	47.1 AV	54.0	-6.9	1.51 H	338	28.6	18.5
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	5460.00	58.1 PK	74.0	-15.9	1.44 V	350	51.8	6.3
2	5460.00	45.2 AV	54.0	-8.8	1.44 V	350	38.9	6.3
3	#5470.00	59.3 PK	68.2	-8.9	1.42 V	349	53.0	6.3
4	*5610.00	113.7 PK			1.46 V	346	71.6	42.1
5	*5610.00	100.6 AV			1.46 V	346	58.5	42.1
6	#5725.00	64.5 PK	68.2	-3.7	1.46 V	351	58.0	6.5
7	11220.00	60.2 PK	74.0	-13.8	1.42 V	13	41.7	18.5
8	11220.00	47.0 AV	54.0	-7.0	1.42 V	13	28.5	18.5

Remarks:

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

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

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.1 PK	68.2	-10.1	1.58 H	342	51.8	6.3
2	*5690.00	116.9 PK			1.62 H	345	74.6	42.3
3	*5690.00	103.9 AV			1.62 H	345	61.6	42.3
4	#5850.00	59.2 PK	68.2	-9.0	1.55 H	348	52.4	6.8
5	11380.00	59.5 PK	74.0	-14.5	1.52 H	349	41.7	17.8
6	11380.00	46.4 AV	54.0	-7.6	1.52 H	349	28.6	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	#5470.00	57.9 PK	68.2	-10.3	1.45 V	342	51.6	6.3
2	*5690.00	114.3 PK			1.50 V	344	72.0	42.3
3	*5690.00	101.6 AV			1.50 V	344	59.3	42.3
4	#5850.00	58.6 PK	68.2	-9.6	1.47 V	346	51.8	6.8
5	11380.00	59.4 PK	74.0	-14.6	1.35 V	22	41.6	17.8
6	11380.00	46.3 AV	54.0	-7.7	1.35 V	22	28.5	17.8

Remarks:

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

Scanning radio (Radio 3)

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	*5260.00	108.4 PK			1.59 H	284	66.5	41.9
2	*5260.00	98.2 AV			1.59 H	284	56.3	41.9
3	5350.00	57.8 PK	74.0	-16.2	1.62 H	286	51.4	6.4
4	5350.00	44.7 AV	54.0	-9.3	1.62 H	286	38.3	6.4
5	#10520.00	60.2 PK	68.2	-8.0	1.85 H	338	42.6	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	*5260.00	119.1 PK			1.76 V	1	77.2	41.9
2	*5260.00	109.1 AV			1.76 V	1	67.2	41.9
3	5350.00	65.7 PK	74.0	-8.3	1.78 V	3	59.3	6.4
4	5350.00	52.9 AV	54.0	-1.1	1.78 V	3	46.5	6.4
5	#10520.00	58.2 PK	68.2	-10.0	2.74 V	78	40.6	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 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	109.0 PK			1.44 H	288	67.1	41.9
2	*5300.00	99.3 AV			1.44 H	288	57.4	41.9
3	10600.00	58.7 PK	74.0	-15.3	2.88 H	83	41.5	17.2
4	10600.00	45.7 AV	54.0	-8.3	2.88 H	83	28.5	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	*5300.00	119.0 PK			1.57 V	5	77.1	41.9
2	*5300.00	109.0 AV			1.57 V	5	67.1	41.9
3	10600.00	58.2 PK	74.0	-15.8	2.78 V	81	41.0	17.2
4	10600.00	45.4 AV	54.0	-8.6	2.78 V	81	28.2	17.2

Remarks:

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

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	106.6 PK			1.38 H	290	64.6	42.0
2	*5320.00	96.4 AV			1.38 H	290	54.4	42.0
3	5350.00	58.6 PK	74.0	-15.4	1.40 H	292	52.2	6.4
4	5350.00	44.9 AV	54.0	-9.1	1.40 H	292	38.5	6.4
5	10640.00	59.5 PK	74.0	-14.5	1.88 H	339	42.1	17.4
6	10640.00	46.2 AV	54.0	-7.8	1.88 H	339	28.8	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	*5320.00	116.2 PK			1.52 V	5	74.2	42.0
2	*5320.00	106.0 AV			1.52 V	5	64.0	42.0
3	5350.00	66.7 PK	74.0	-7.3	1.51 V	5	60.3	6.4
4	5350.00	52.4 AV	54.0	-1.6	1.51 V	5	46.0	6.4
5	10640.00	58.5 PK	74.0	-15.5	2.77 V	82	41.1	17.4
6	10640.00	45.8 AV	54.0	-8.2	2.77 V	82	28.4	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.

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	57.5 PK	74.0	-16.5	1.20 H	277	51.2	6.3
2	5460.00	44.5 AV	54.0	-9.5	1.20 H	277	38.2	6.3
3	#5470.00	58.2 PK	68.2	-10.0	1.22 H	180	51.9	6.3
4	*5500.00	108.1 PK			1.14 H	281	66.0	42.1
5	*5500.00	98.1 AV			1.14 H	281	56.0	42.1
6	11000.00	60.8 PK	74.0	-13.2	1.92 H	319	42.2	18.6
7	11000.00	47.0 AV	54.0	-7.0	1.92 H	319	28.4	18.6
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	5460.00	60.5 PK	74.0	-13.5	1.83 V	3	54.2	6.3
2	5460.00	47.0 AV	54.0	-7.0	1.83 V	3	40.7	6.3
3	#5470.00	66.6 PK	68.2	-1.6	1.90 V	3	60.3	6.3
4	*5500.00	117.2 PK			1.82 V	5	75.1	42.1
5	*5500.00	106.7 AV			1.82 V	5	64.6	42.1
6	11000.00	59.2 PK	74.0	-14.8	2.07 V	139	40.6	18.6
7	11000.00	46.6 AV	54.0	-7.4	2.07 V	139	28.0	18.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
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	5460.00	58.0 PK	74.0	-16.0	1.41 H	278	51.7	6.3
2	5460.00	44.5 AV	54.0	-9.5	1.41 H	278	38.2	6.3
3	#5470.00	58.6 PK	68.2	-9.6	1.40 H	278	52.3	6.3
4	*5580.00	109.6 PK			1.36 H	277	67.5	42.1
5	*5580.00	99.4 AV			1.36 H	277	57.3	42.1
6	11160.00	60.6 PK	74.0	-13.4	1.77 H	312	42.1	18.5
7	11160.00	47.1 AV	54.0	-6.9	1.77 H	312	28.6	18.5
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	5460.00	60.0 PK	74.0	-14.0	1.76 V	2	53.7	6.3
2	5460.00	48.2 AV	54.0	-5.8	1.76 V	2	41.9	6.3
3	#5470.00	61.0 PK	68.2	-7.2	1.74 V	5	54.7	6.3
4	*5580.00	117.4 PK			1.70 V	6	75.3	42.1
5	*5580.00	107.7 AV			1.70 V	6	65.6	42.1
6	11160.00	59.3 PK	74.0	-14.7	2.31 V	93	40.8	18.5
7	11160.00	45.8 AV	54.0	-8.2	2.31 V	93	27.3	18.5

Remarks:

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

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	105.8 PK			1.41 H	281	63.5	42.3
2	*5700.00	95.3 AV			1.41 H	281	53.0	42.3
3	#5725.00	60.6 PK	68.2	-7.6	1.44 H	275	54.1	6.5
4	11400.00	59.8 PK	74.0	-14.2	1.88 H	323	41.9	17.9
5	11400.00	46.5 AV	54.0	-7.5	1.88 H	323	28.6	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	*5700.00	115.0 PK			1.96 V	5	72.7	42.3
2	*5700.00	105.7 AV			1.96 V	5	63.4	42.3
3	#5725.00	66.5 PK	68.2	-1.7	1.94 V	4	60.0	6.5
4	11400.00	59.0 PK	74.0	-15.0	2.12 V	102	41.1	17.9
5	11400.00	45.5 AV	54.0	-8.5	2.12 V	102	27.6	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 802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.2 PK	68.2	-10.0	1.36 H	278	51.9	6.3
2	*5720.00	106.5 PK			1.39 H	277	64.3	42.2
3	*5720.00	96.6 AV			1.39 H	277	54.4	42.2
4	#5850.00	58.0 PK	68.2	-10.2	1.41 H	279	51.2	6.8
5	11440.00	59.2 PK	74.0	-14.8	1.89 H	318	41.2	18.0
6	11440.00	46.3 AV	54.0	-7.7	1.89 H	318	28.3	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	#5470.00	58.8 PK	68.2	-9.4	1.88 V	1	52.5	6.3
2	*5720.00	115.6 PK			1.97 V	6	73.4	42.2
3	*5720.00	105.5 AV			1.97 V	6	63.3	42.2
4	#5850.00	59.2 PK	68.2	-9.0	1.78 V	7	52.4	6.8
5	11440.00	59.2 PK	74.0	-14.8	2.35 V	117	41.2	18.0
6	11440.00	46.1 AV	54.0	-7.9	2.35 V	117	28.1	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 802.11ac (VHT20)	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	*5260.00	108.7 PK			1.48 H	284	66.8	41.9
2	*5260.00	98.5 AV			1.48 H	284	56.6	41.9
3	5350.00	57.6 PK	74.0	-16.4	1.52 H	286	51.2	6.4
4	5350.00	44.7 AV	54.0	-9.3	1.52 H	286	38.3	6.4
5	#10520.00	59.7 PK	68.2	-8.5	1.91 H	335	42.1	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	*5260.00	119.2 PK			1.65 V	3	77.3	41.9
2	*5260.00	108.9 AV			1.65 V	3	67.0	41.9
3	5350.00	63.5 PK	74.0	-10.5	1.74 V	5	57.1	6.4
4	5350.00	52.2 AV	54.0	-1.8	1.74 V	5	45.8	6.4
5	#10520.00	58.4 PK	68.2	-9.8	2.77 V	81	40.8	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 802.11ac (VHT20)	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	108.6 PK			1.29 H	293	66.7	41.9
2	*5300.00	98.6 AV			1.29 H	293	56.7	41.9
3	10600.00	59.0 PK	74.0	-15.0	1.91 H	341	41.8	17.2
4	10600.00	45.9 AV	54.0	-8.1	1.91 H	341	28.7	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	*5300.00	119.4 PK			1.73 V	3	77.5	41.9
2	*5300.00	109.3 AV			1.73 V	3	67.4	41.9
3	10600.00	58.0 PK	74.0	-16.0	2.78 V	82	40.8	17.2
4	10600.00	45.5 AV	54.0	-8.5	2.78 V	82	28.3	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.

RF Mode	TX 802.11ac (VHT20)	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	105.9 PK			1.38 H	288	63.9	42.0
2	*5320.00	95.8 AV			1.38 H	288	53.8	42.0
3	5350.00	57.9 PK	74.0	-16.1	1.42 H	291	51.5	6.4
4	5350.00	44.9 AV	54.0	-9.1	1.42 H	291	38.5	6.4
5	10640.00	58.9 PK	74.0	-15.1	1.92 H	341	41.5	17.4
6	10640.00	45.9 AV	54.0	-8.1	1.92 H	341	28.5	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	*5320.00	115.6 PK			1.67 V	4	73.6	42.0
2	*5320.00	105.7 AV			1.67 V	4	63.7	42.0
3	5350.00	66.6 PK	74.0	-7.4	1.61 V	2	60.2	6.4
4	5350.00	52.2 AV	54.0	-1.8	1.61 V	2	45.8	6.4
5	10640.00	58.3 PK	74.0	-15.7	2.78 V	82	40.9	17.4
6	10640.00	45.8 AV	54.0	-8.2	2.78 V	82	28.4	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.

RF Mode	TX 802.11ac (VHT20)	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	1.40 H	279	51.7	6.3
2	5460.00	44.3 AV	54.0	-9.7	1.40 H	279	38.0	6.3
3	#5470.00	58.8 PK	68.2	-9.4	1.38 H	280	52.5	6.3
4	*5500.00	107.4 PK			1.38 H	281	65.3	42.1
5	*5500.00	97.3 AV			1.38 H	281	55.2	42.1
6	11000.00	60.3 PK	74.0	-13.7	1.73 H	310	41.7	18.6
7	11000.00	47.0 AV	54.0	-7.0	1.73 H	310	28.4	18.6
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	5460.00	60.6 PK	74.0	-13.4	1.86 V	3	54.3	6.3
2	5460.00	47.3 AV	54.0	-6.7	1.86 V	3	41.0	6.3
3	#5470.00	67.2 PK	68.2	-1.0	1.90 V	1	60.9	6.3
4	*5500.00	117.0 PK			1.80 V	6	74.9	42.1
5	*5500.00	106.9 AV			1.80 V	6	64.8	42.1
6	11000.00	60.6 PK	74.0	-13.4	2.33 V	97	42.0	18.6
7	11000.00	46.1 AV	54.0	-7.9	2.33 V	97	27.5	18.6

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	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	5460.00	57.6 PK	74.0	-16.4	1.40 H	279	51.3	6.3
2	5460.00	44.3 AV	54.0	-9.7	1.40 H	279	38.0	6.3
3	#5470.00	58.2 PK	68.2	-10.0	1.35 H	271	51.9	6.3
4	*5580.00	109.1 PK			1.37 H	277	67.0	42.1
5	*5580.00	99.3 AV			1.37 H	277	57.2	42.1
6	11160.00	60.6 PK	74.0	-13.4	1.83 H	336	42.1	18.5
7	11160.00	47.0 AV	54.0	-7.0	1.83 H	336	28.5	18.5
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	5460.00	60.3 PK	74.0	-13.7	1.80 V	6	54.0	6.3
2	5460.00	47.5 AV	54.0	-6.5	1.80 V	6	41.2	6.3
3	#5470.00	59.5 PK	68.2	-8.7	1.78 V	3	53.2	6.3
4	*5580.00	117.8 PK			1.77 V	2	75.7	42.1
5	*5580.00	107.6 AV			1.77 V	2	65.5	42.1
6	11160.00	59.5 PK	74.0	-14.5	2.23 V	95	41.0	18.5
7	11160.00	46.0 AV	54.0	-8.0	2.23 V	95	27.5	18.5

Remarks:

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

RF Mode	TX 802.11ac (VHT20)	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	106.0 PK			1.41 H	277	63.7	42.3
2	*5700.00	95.1 AV			1.41 H	277	52.8	42.3
3	#5725.00	58.4 PK	68.2	-9.8	1.44 H	280	51.9	6.5
4	11400.00	59.1 PK	74.0	-14.9	1.79 H	335	41.2	17.9
5	11400.00	45.9 AV	54.0	-8.1	1.79 H	335	28.0	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	*5700.00	114.9 PK			1.91 V	4	72.6	42.3
2	*5700.00	104.9 AV			1.91 V	4	62.6	42.3
3	#5725.00	66.6 PK	68.2	-1.6	1.99 V	7	60.1	6.5
4	11400.00	59.1 PK	74.0	-14.9	2.40 V	99	41.2	17.9
5	11400.00	45.2 AV	54.0	-8.8	2.40 V	99	27.3	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 802.11ac (VHT20)	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.1 PK	68.2	-10.1	1.41 H	272	51.8	6.3
2	*5720.00	105.3 PK			1.45 H	269	63.1	42.2
3	*5720.00	95.1 AV			1.45 H	269	52.9	42.2
4	#5850.00	58.6 PK	68.2	-9.6	1.49 H	272	51.8	6.8
5	11440.00	60.0 PK	74.0	-14.0	1.72 H	321	42.0	18.0
6	11440.00	46.1 AV	54.0	-7.9	1.72 H	321	28.1	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	#5470.00	63.2 PK	68.2	-5.0	1.75 V	2	56.9	6.3
2	*5720.00	116.6 PK			1.98 V	6	74.4	42.2
3	*5720.00	106.4 AV			1.98 V	6	64.2	42.2
4	#5850.00	60.3 PK	68.2	-7.9	1.80 V	10	53.5	6.8
5	11440.00	59.6 PK	74.0	-14.4	2.16 V	112	41.6	18.0
6	11440.00	45.2 AV	54.0	-8.8	2.16 V	112	27.2	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 802.11ac (VHT40)	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	5150.00	58.0 PK	74.0	-16.0	1.35 H	279	51.4	6.6
2	5150.00	44.8 AV	54.0	-9.2	1.35 H	279	38.2	6.6
3	*5270.00	105.5 PK			1.21 H	295	63.6	41.9
4	*5270.00	95.5 AV			1.21 H	295	53.6	41.9
5	5350.00	57.7 PK	74.0	-16.3	1.45 H	285	51.3	6.4
6	5350.00	45.0 AV	54.0	-9.0	1.45 H	285	38.6	6.4
7	#10540.00	59.4 PK	68.2	-8.8	2.00 H	350	41.8	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	5150.00	60.8 PK	74.0	-13.2	1.65 V	5	54.2	6.6
2	5150.00	47.8 AV	54.0	-6.2	1.65 V	5	41.2	6.6
3	*5270.00	117.1 PK			1.73 V	3	75.2	41.9
4	*5270.00	106.7 AV			1.73 V	3	64.8	41.9
5	5350.00	65.2 PK	74.0	-8.8	1.94 V	1	58.8	6.4
6	5350.00	52.4 AV	54.0	-1.6	1.94 V	1	46.0	6.4
7	#10540.00	58.6 PK	68.2	-9.6	2.67 V	85	41.0	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 802.11ac (VHT40)	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	103.4 PK			1.40 H	292	61.4	42.0
2	*5310.00	92.9 AV			1.40 H	292	50.9	42.0
3	5350.00	58.2 PK	74.0	-15.8	1.26 H	285	51.8	6.4
4	5350.00	45.5 AV	54.0	-8.5	1.26 H	285	39.1	6.4
5	10620.00	58.6 PK	74.0	-15.4	1.90 H	329	41.2	17.4
6	10620.00	45.7 AV	54.0	-8.3	1.90 H	329	28.3	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	*5310.00	113.7 PK			1.71 V	2	71.7	42.0
2	*5310.00	103.0 AV			1.71 V	2	61.0	42.0
3	5350.00	67.1 PK	74.0	-6.9	1.59 V	3	60.7	6.4
4	5350.00	52.7 AV	54.0	-1.3	1.59 V	3	46.3	6.4
5	10620.00	59.6 PK	74.0	-14.4	2.59 V	87	42.2	17.4
6	10620.00	45.6 AV	54.0	-8.4	2.59 V	87	28.2	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.

RF Mode	TX 802.11ac (VHT40)	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	57.8 PK	74.0	-16.2	1.41 H	280	51.5	6.3
2	5460.00	44.7 AV	54.0	-9.3	1.41 H	280	38.4	6.3
3	#5470.00	57.9 PK	68.2	-10.3	1.39 H	281	51.6	6.3
4	*5510.00	103.0 PK			1.33 H	277	60.9	42.1
5	*5510.00	92.8 AV			1.33 H	277	50.7	42.1
6	11020.00	60.3 PK	74.0	-13.7	1.93 H	345	41.7	18.6
7	11020.00	46.9 AV	54.0	-7.1	1.93 H	345	28.3	18.6
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	5460.00	60.3 PK	74.0	-13.7	1.90 V	4	54.0	6.3
2	5460.00	47.8 AV	54.0	-6.2	1.90 V	4	41.5	6.3
3	#5470.00	66.6 PK	68.2	-1.6	1.78 V	3	60.3	6.3
4	*5510.00	113.2 PK			1.81 V	3	71.1	42.1
5	*5510.00	102.4 AV			1.81 V	3	60.3	42.1
6	11020.00	60.6 PK	74.0	-13.4	2.35 V	100	42.0	18.6
7	11020.00	45.9 AV	54.0	-8.1	2.35 V	100	27.3	18.6

Remarks:

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

RF Mode	TX 802.11ac (VHT40)	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	5460.00	57.4 PK	74.0	-16.6	1.37 H	282	51.1	6.3
2	5460.00	44.5 AV	54.0	-9.5	1.37 H	282	38.2	6.3
3	#5470.00	58.0 PK	68.2	-10.2	1.40 H	279	51.7	6.3
4	*5550.00	105.5 PK			1.35 H	282	63.4	42.1
5	*5550.00	95.3 AV			1.35 H	282	53.2	42.1
6	11100.00	60.0 PK	74.0	-14.0	1.89 H	340	41.7	18.3
7	11100.00	46.6 AV	54.0	-7.4	1.89 H	340	28.3	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	60.1 PK	74.0	-13.9	1.75 V	5	53.8	6.3
2	5460.00	47.2 AV	54.0	-6.8	1.75 V	5	40.9	6.3
3	#5470.00	64.6 PK	68.2	-3.6	1.77 V	3	58.3	6.3
4	*5550.00	115.1 PK			1.87 V	3	73.0	42.1
5	*5550.00	104.5 AV			1.87 V	3	62.4	42.1
6	11100.00	59.6 PK	74.0	-14.4	2.33 V	92	41.3	18.3
7	11100.00	46.3 AV	54.0	-7.7	2.33 V	92	28.0	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 802.11ac (VHT40)	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	103.1 PK			1.36 H	276	60.9	42.2
2	*5670.00	93.0 AV			1.36 H	276	50.8	42.2
3	#5725.00	59.5 PK	68.2	-8.7	1.32 H	270	53.0	6.5
4	11340.00	59.1 PK	74.0	-14.9	1.92 H	333	41.0	18.1
5	11340.00	46.3 AV	54.0	-7.7	1.92 H	333	28.2	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	*5670.00	112.3 PK			1.93 V	4	70.1	42.2
2	*5670.00	101.7 AV			1.93 V	4	59.5	42.2
3	#5725.00	66.5 PK	68.2	-1.7	1.82 V	9	60.0	6.5
4	11340.00	58.6 PK	74.0	-15.4	2.13 V	99	40.5	18.1
5	11340.00	45.0 AV	54.0	-9.0	2.13 V	99	26.9	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 802.11ac (VHT40)	Channel	CH 142 : 5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.0 PK	68.2	-10.2	1.40 H	278	51.7	6.3
2	*5710.00	104.0 PK			1.41 H	276	61.7	42.3
3	*5710.00	93.2 AV			1.41 H	276	50.9	42.3
4	#5850.00	58.3 PK	68.2	-9.9	1.44 H	280	51.5	6.8
5	11420.00	59.8 PK	74.0	-14.2	1.96 H	342	41.9	17.9
6	11420.00	46.5 AV	54.0	-7.5	1.96 H	342	28.6	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	#5470.00	63.1 PK	68.2	-5.1	1.97 V	2	56.8	6.3
2	*5710.00	114.2 PK			1.99 V	6	71.9	42.3
3	*5710.00	102.9 AV			1.99 V	6	60.6	42.3
4	#5850.00	60.3 PK	68.2	-7.9	1.68 V	10	53.5	6.8
5	11420.00	58.4 PK	74.0	-15.6	2.20 V	106	40.5	17.9
6	11420.00	44.8 AV	54.0	-9.2	2.20 V	106	26.9	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 802.11ac (VHT80)	Channel	CH 58 : 5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.7 PK	74.0	-16.3	1.37 H	296	51.1	6.6
2	5150.00	45.3 AV	54.0	-8.7	1.37 H	296	38.7	6.6
3	*5290.00	89.0 PK			1.29 H	289	47.1	41.9
4	*5290.00	78.2 AV			1.29 H	289	36.3	41.9
5	5350.00	57.2 PK	74.0	-16.8	2.91 H	139	50.8	6.4
6	5350.00	45.7 AV	54.0	-8.3	2.91 H	139	39.3	6.4
7	#10580.00	59.0 PK	68.2	-9.2	1.93 H	333	41.6	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	57.6 PK	74.0	-16.4	1.77 V	360	51.0	6.6
2	5150.00	45.7 AV	54.0	-8.3	1.77 V	360	39.1	6.6
3	*5290.00	98.7 PK			1.69 V	4	56.8	41.9
4	*5290.00	87.8 AV			1.69 V	4	45.9	41.9
5	5350.00	66.8 PK	74.0	-7.2	1.81 V	3	60.4	6.4
6	5350.00	52.8 AV	54.0	-1.2	1.81 V	3	46.4	6.4
7	#10580.00	59.4 PK	68.2	-8.8	2.61 V	88	42.0	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 802.11ac (VHT80)	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	57.5 PK	74.0	-16.5	1.39 H	283	51.2	6.3
2	5460.00	45.3 AV	54.0	-8.7	1.39 H	283	39.0	6.3
3	#5470.00	58.8 PK	68.2	-9.4	1.41 H	277	52.5	6.3
4	*5530.00	93.1 PK			1.37 H	276	51.0	42.1
5	*5530.00	83.2 AV			1.37 H	276	41.1	42.1
6	#5725.00	58.8 PK	68.2	-9.4	1.40 H	281	52.3	6.5
7	11060.00	59.7 PK	74.0	-14.3	1.82 H	316	41.3	18.4
8	11060.00	46.6 AV	54.0	-7.4	1.82 H	316	28.2	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	62.7 PK	74.0	-11.3	1.79 V	3	56.4	6.3
2	5460.00	47.0 AV	54.0	-7.0	1.79 V	3	40.7	6.3
3	#5470.00	66.5 PK	68.2	-1.7	1.63 V	4	60.2	6.3
4	*5530.00	102.8 PK			1.80 V	3	60.7	42.1
5	*5530.00	92.5 AV			1.80 V	3	50.4	42.1
6	#5725.00	59.3 PK	68.2	-8.9	1.83 V	5	52.8	6.5
7	11060.00	60.1 PK	74.0	-13.9	2.33 V	90	41.7	18.4
8	11060.00	46.4 AV	54.0	-7.6	2.33 V	90	28.0	18.4

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	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	58.0 PK	74.0	-16.0	1.37 H	283	51.7	6.3
2	5460.00	45.3 AV	54.0	-8.7	1.37 H	283	39.0	6.3
3	#5470.00	58.7 PK	68.2	-9.5	1.41 H	279	52.4	6.3
4	*5610.00	100.8 PK			1.34 H	278	58.7	42.1
5	*5610.00	90.9 AV			1.34 H	278	48.8	42.1
6	#5725.00	57.8 PK	68.2	-10.4	1.38 H	280	51.3	6.5
7	11220.00	58.6 PK	74.0	-15.4	1.85 H	320	40.1	18.5
8	11220.00	45.7 AV	54.0	-8.3	1.85 H	320	27.2	18.5
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	5460.00	60.3 PK	74.0	-13.7	1.70 V	3	54.0	6.3
2	5460.00	48.6 AV	54.0	-5.4	1.70 V	3	42.3	6.3
3	#5470.00	62.3 PK	68.2	-5.9	1.79 V	6	56.0	6.3
4	*5610.00	109.8 PK			1.63 V	4	67.7	42.1
5	*5610.00	99.3 AV			1.63 V	4	57.2	42.1
6	#5725.00	66.5 PK	68.2	-1.7	1.85 V	4	60.0	6.5
7	11220.00	60.4 PK	74.0	-13.6	2.03 V	102	41.9	18.5
8	11220.00	45.8 AV	54.0	-8.2	2.03 V	102	27.3	18.5

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 138 : 5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.1 PK	68.2	-10.1	1.34 H	289	51.8	6.3
2	*5690.00	101.7 PK			1.37 H	279	59.4	42.3
3	*5690.00	91.8 AV			1.37 H	279	49.5	42.3
4	#5850.00	58.4 PK	68.2	-9.8	1.33 H	291	51.6	6.8
5	11380.00	57.0 PK	74.0	-17.0	3.02 H	87	39.2	17.8
6	11380.00	45.1 AV	54.0	-8.9	3.02 H	87	27.3	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	#5470.00	62.5 PK	68.2	-5.7	1.81 V	4	56.2	6.3
2	*5690.00	111.0 PK			1.74 V	4	68.7	42.3
3	*5690.00	100.3 AV			1.74 V	4	58.0	42.3
4	#5850.00	63.1 PK	68.2	-5.1	2.16 V	7	56.3	6.8
5	11380.00	59.4 PK	74.0	-14.6	1.93 V	121	41.6	17.8
6	11380.00	45.0 AV	54.0	-9.0	1.93 V	121	27.2	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:

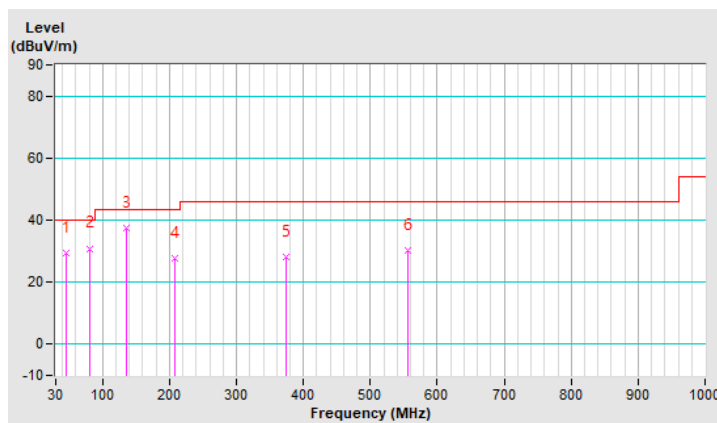
5G traffic radio (Radio 2)

RF Mode	TX 802.11ax (HE20)	Channel	CH 60 : 5300 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	45.46	29.4 QP	40.0	-10.6	1.50 H	117	38.5	-9.1
2	80.61	30.9 QP	40.0	-9.1	2.00 H	132	44.4	-13.5
3	135.43	37.6 QP	43.5	-5.9	2.00 H	56	47.0	-9.4
4	208.54	27.8 QP	43.5	-15.7	1.50 H	71	38.8	-11.0
5	374.42	28.1 QP	46.0	-17.9	1.00 H	222	33.2	-5.1
6	555.77	30.3 QP	46.0	-15.7	1.50 H	153	31.4	-1.1

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. 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.

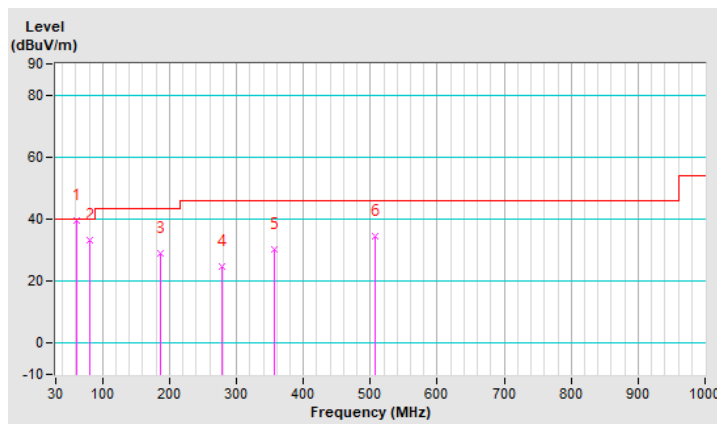


RF Mode	TX 802.11ax (HE20)	Channel	CH 60 : 5300 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	60.93	39.6 QP	40.0	-0.4	1.00 V	301	49.4	-9.8
2	80.61	33.2 QP	40.0	-6.8	1.50 V	5	46.7	-13.5
3	186.04	28.8 QP	43.5	-14.7	1.00 V	160	39.3	-10.5
4	278.83	24.9 QP	46.0	-21.1	1.50 V	176	31.9	-7.0
5	356.14	30.3 QP	46.0	-15.7	1.50 V	5	35.8	-5.5
6	506.57	34.5 QP	46.0	-11.5	1.00 V	324	36.7	-2.2

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. 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.



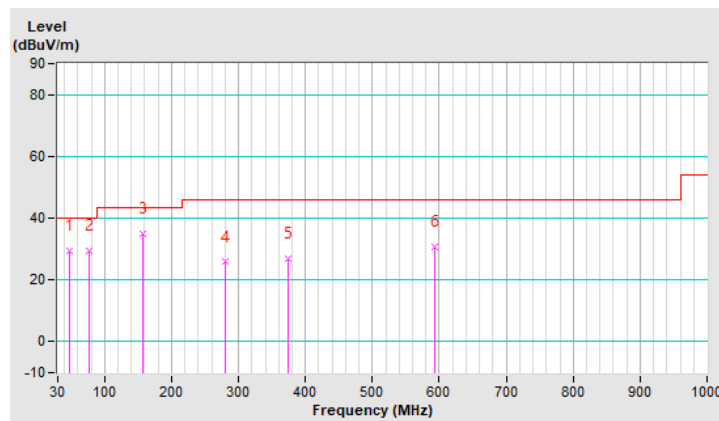
Scanning radio (Radio 3)

RF Mode	TX 802.11ac (VHT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	48.28	29.2 QP	40.0	-10.8	1.50 H	96	38.3	-9.1
2	77.80	29.4 QP	40.0	-10.6	1.50 H	249	42.2	-12.8
3	157.93	34.8 QP	43.5	-8.7	1.50 H	210	43.2	-8.4
4	280.23	25.8 QP	46.0	-20.2	1.00 H	124	32.7	-6.9
5	374.42	26.8 QP	46.0	-19.2	1.00 H	226	31.9	-5.1
6	593.72	30.7 QP	46.0	-15.3	1.50 H	211	30.5	0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. 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.

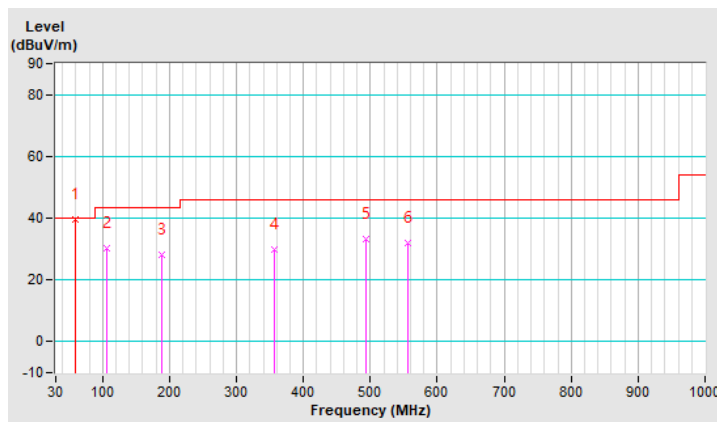


RF Mode	TX 802.11ac (VHT20)	Channel	CH 60 : 5300 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	59.92	39.6 QP	40.0	-0.4	1.00 V	13	49.0	-9.4
2	105.91	30.1 QP	43.5	-13.4	1.00 V	57	42.5	-12.4
3	187.45	28.3 QP	43.5	-15.2	1.00 V	165	39.0	-10.7
4	356.14	30.0 QP	46.0	-16.0	1.50 V	288	35.5	-5.5
5	493.91	33.4 QP	46.0	-12.6	1.00 V	14	35.9	-2.5
6	555.77	31.9 QP	46.0	-14.1	1.00 V	245	33.0	-1.1

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 04, 2020	Dec. 03, 2021
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 04, 2020	Sep. 03, 2021
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 20, 2020 Feb. 25, 2021	Feb. 19, 2021 Feb. 24, 2022
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 28, 2020	Aug. 27, 2021
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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

2. The test was performed in HwaYa Shielded Room 1 (Conduction 1).

3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

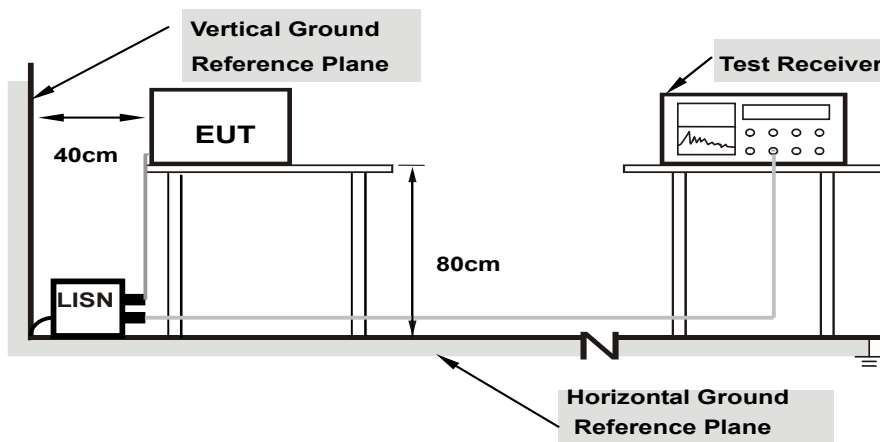
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- 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:

5G traffic radio (Radio 2)

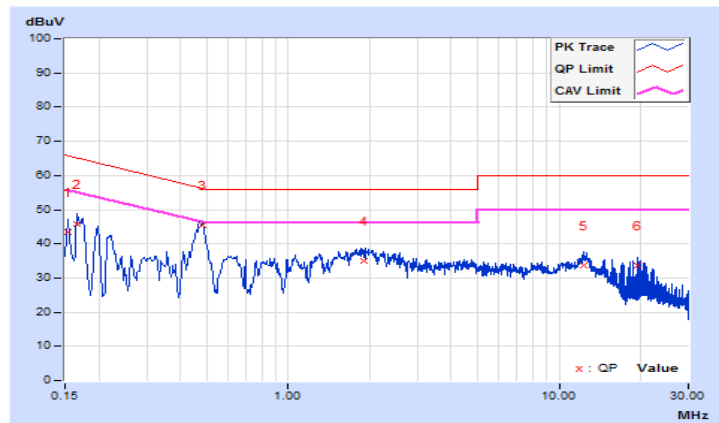
802.11ax (HE20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15400	10.09	33.42	26.94	43.51	37.03	65.78
2	0.16535	10.10	35.68	24.11	45.78	34.21	65.19	55.19	-19.41	-20.98
3	0.48063	10.20	35.24	29.49	45.44	39.69	56.33	46.33	-10.89	-6.64
4	1.89800	10.36	24.78	20.33	35.14	30.69	56.00	46.00	-20.86	-15.31
5	12.25800	10.93	22.84	17.80	33.77	28.73	60.00	50.00	-26.23	-21.27
6	19.36600	11.29	22.46	19.74	33.75	31.03	60.00	50.00	-26.25	-18.97

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.

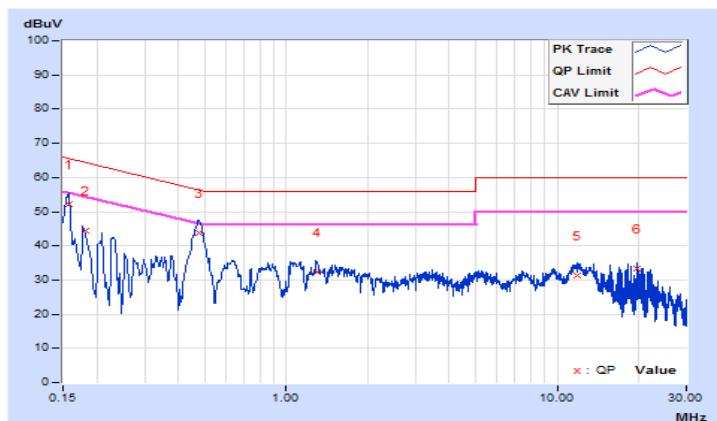


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15687	10.08	42.22	27.93	52.30	38.01	65.63
2	0.18200	10.09	34.24	21.86	44.33	31.95	64.39	54.39	-20.06	-22.44
3	0.47400	10.20	33.47	32.03	43.67	42.23	56.44	46.44	-12.77	-4.21
4	1.29426	10.31	22.12	18.69	32.43	29.00	56.00	46.00	-23.57	-17.00
5	11.80600	10.77	20.45	15.24	31.22	26.01	60.00	50.00	-28.78	-23.99
6	19.61000	11.08	22.26	20.26	33.34	31.34	60.00	50.00	-26.66	-18.66

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.



Scanning radio (Radio 3)

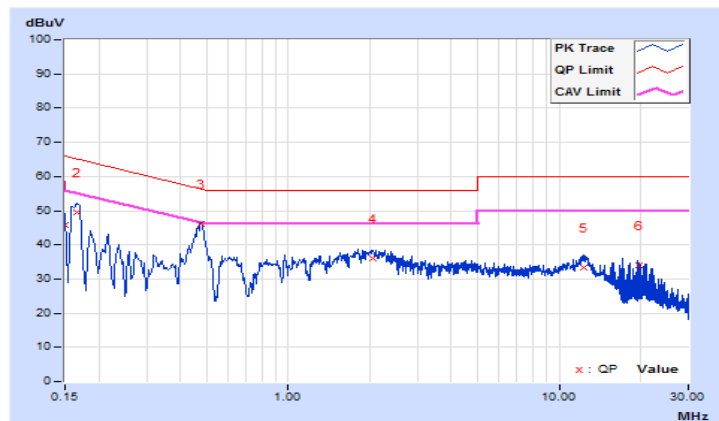
802.11ac (VHT20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15000	10.09	35.65	25.07	45.74	35.16	66.00
2	0.16535	10.10	39.36	23.49	49.46	33.59	65.19	55.19	-15.73	-21.60
3	0.47400	10.20	35.84	31.90	46.04	42.10	56.44	46.44	-10.40	-4.34
4	2.04600	10.37	25.51	21.14	35.88	31.51	56.00	46.00	-20.12	-14.49
5	12.26200	10.93	22.32	17.39	33.25	28.32	60.00	50.00	-26.75	-21.68
6	19.61000	11.30	22.87	21.61	34.17	32.91	60.00	50.00	-25.83	-17.09

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.

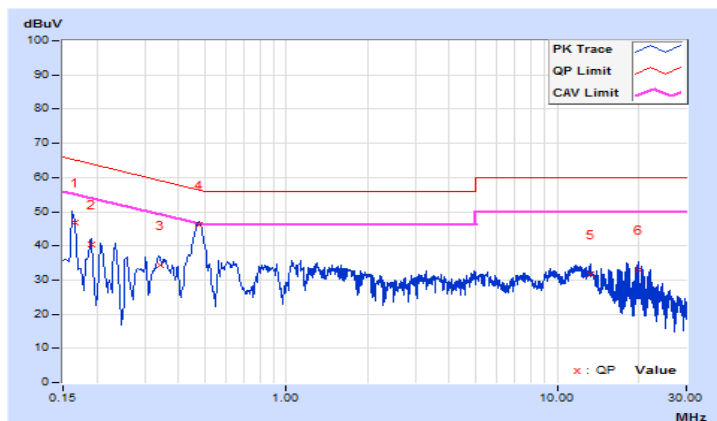


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16600	10.09	36.58	23.34	46.67	33.43	65.16
2	0.19000	10.10	30.44	18.51	40.54	28.61	64.04	54.04	-23.50	-25.43
3	0.34200	10.16	24.35	17.96	34.51	28.12	59.15	49.15	-24.64	-21.03
4	0.47434	10.20	35.90	31.97	46.10	42.17	56.44	46.44	-10.34	-4.27
5	13.23800	10.82	20.89	15.89	31.71	26.71	60.00	50.00	-28.29	-23.29
6	19.85400	11.09	21.83	19.58	32.92	30.67	60.00	50.00	-27.08	-19.33

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 \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

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

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

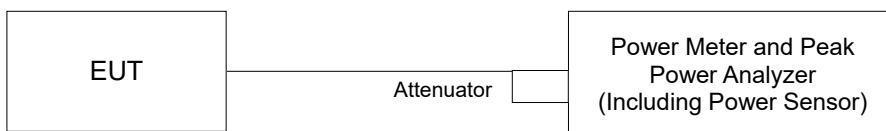
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

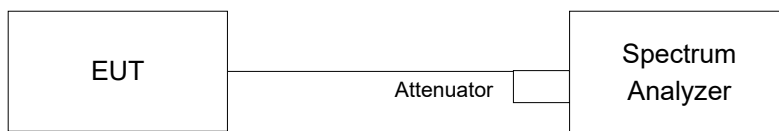
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For Power Output



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



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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

For transmission above 5.725 GHz where the EBW crosses 5.725 GHz

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

For 26dB Bandwidth

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

5G traffic radio (Radio 2)

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				
52	5260	15.69	15.79	75.000	18.75	19.83	Pass
60	5300	15.65	15.91	75.722	18.79	19.83	Pass
64	5320	15.62	15.96	75.921	18.80	19.83	Pass
100	5500	14.76	15.21	63.112	18.00	19.83	Pass
116	5580	15.06	15.58	68.204	18.34	19.83	Pass
140	5700	15.19	15.23	66.380	18.22	19.83	Pass
144	5720 (For U-NII-2C)	15.10	15.50	67.841	18.31	18.70	Pass
144	5720 (For U-NII-3)	10.86	9.06	20.244	13.06	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5700MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 22.87 - (10.17 - 6) = 18.70dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (20.67) = 24.15 > 24dBm
- 11dBm + 10log (20.66) = 24.15 > 24dBm
- 11dBm + 10log (20.68) = 24.15 > 24dBm
- 11dBm + 10log (20.31) = 24.07 > 24dBm
- 11dBm + 10log (20.75) = 24.17 > 24dBm
- 11dBm + 10log (20.54) = 24.12 > 24dBm
- 11dBm + 10log (5725.00 - 5709.57) = 22.88 < 24dBm

Chain 1

- 11dBm + 10log (20.53) = 24.12 > 24dBm
- 11dBm + 10log (20.66) = 24.15 > 24dBm
- 11dBm + 10log (20.70) = 24.15 > 24dBm
- 11dBm + 10log (20.76) = 24.17 > 24dBm
- 11dBm + 10log (20.77) = 24.17 > 24dBm
- 11dBm + 10log (20.75) = 24.17 > 24dBm
- 11dBm + 10log (5725.00 - 5709.59) = 22.87 < 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				
52	5260	16.58	16.78	93.142	19.69	19.83	Pass
60	5300	16.41	17.00	93.871	19.73	19.83	Pass
64	5320	16.40	16.90	92.629	19.67	19.83	Pass
100	5500	15.05	15.68	68.972	18.39	19.83	Pass
116	5580	15.31	15.78	71.807	18.56	19.83	Pass
140	5700	15.34	15.56	70.173	18.46	19.83	Pass
144	5720 (For U-NII-2C)	15.40	15.38	69.188	18.40	18.86	Pass
144	5720 (For U-NII-3)	10.83	7.75	18.063	12.57	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5700MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 23.03 - (10.17 - 6) = 18.86dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (21.51) = 24.32 > 24dBm
- 11dBm + 10log (21.87) = 24.39 > 24dBm
- 11dBm + 10log (21.89) = 24.40 > 24dBm
- 11dBm + 10log (21.08) = 24.23 > 24dBm
- 11dBm + 10log (21.43) = 24.31 > 24dBm
- 11dBm + 10log (21.86) = 24.39 > 24dBm
- 11dBm + 10log (5725.00 - 5709.02) = 23.03 < 24dBm

Chain 1

- 11dBm + 10log (21.55) = 24.33 > 24dBm
- 11dBm + 10log (21.93) = 24.41 > 24dBm
- 11dBm + 10log (21.35) = 24.29 > 24dBm
- 11dBm + 10log (21.90) = 24.40 > 24dBm
- 11dBm + 10log (22.37) = 24.49 > 24dBm
- 11dBm + 10log (21.95) = 24.41 > 24dBm
- 11dBm + 10log (5725.00 - 5708.94) = 23.05 < 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				
54	5270	16.56	16.33	88.243	19.46	19.83	Pass
62	5310	16.41	16.76	91.176	19.60	19.83	Pass
102	5510	16.05	16.62	86.192	19.35	19.83	Pass
110	5550	16.23	16.67	88.427	19.47	19.83	Pass
134	5670	16.43	16.60	89.663	19.53	19.83	Pass
142	5710 (For U-NII-2C)	15.96	16.00	79.256	18.99	19.83	Pass
142	5710 (For U-NII-3)	5.72	7.18	8.956	9.52	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (42.27) = 27.26 > 24dBm
- 11dBm + 10log (42.23) = 27.25 > 24dBm
- 11dBm + 10log (42.40) = 27.27 > 24dBm
- 11dBm + 10log (42.18) = 27.25 > 24dBm
- 11dBm + 10log (42.16) = 27.24 > 24dBm
- 11dBm + 10log (5725.00 - 5688.85) = 26.58 > 24dBm

Chain 1

- 11dBm + 10log (42.42) = 27.27 > 24dBm
- 11dBm + 10log (42.43) = 27.27 > 24dBm
- 11dBm + 10log (42.47) = 27.28 > 24dBm
- 11dBm + 10log (42.29) = 27.26 > 24dBm
- 11dBm + 10log (42.07) = 27.23 > 24dBm
- 11dBm + 10log (5725.00 - 5688.63) = 26.60 > 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				
52	5260	16.60	16.81	93.682	19.72	19.83	Pass
60	5300	16.43	17.02	94.304	19.75	19.83	Pass
64	5320	16.42	16.92	93.057	19.69	19.83	Pass
100	5500	15.10	15.71	69.599	18.43	19.83	Pass
116	5580	15.35	15.80	72.296	18.59	19.83	Pass
140	5700	15.36	15.58	70.497	18.48	19.83	Pass
144	5720 (For U-NII-2C)	15.43	15.42	69.748	18.44	18.86	Pass
144	5720 (For U-NII-3)	10.85	7.80	18.187	12.60	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5700MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 23.03 - (10.17 - 6) = 18.86dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (21.51) = 24.32 > 24dBm
- 11dBm + 10log (21.87) = 24.39 > 24dBm
- 11dBm + 10log (21.89) = 24.40 > 24dBm
- 11dBm + 10log (21.08) = 24.23 > 24dBm
- 11dBm + 10log (21.43) = 24.31 > 24dBm
- 11dBm + 10log (21.86) = 24.39 > 24dBm
- 11dBm + 10log (5725.00 - 5709.02) = 23.03 < 24dBm

Chain 1

- 11dBm + 10log (21.55) = 24.33 > 24dBm
- 11dBm + 10log (21.93) = 24.41 > 24dBm
- 11dBm + 10log (21.35) = 24.29 > 24dBm
- 11dBm + 10log (21.90) = 24.40 > 24dBm
- 11dBm + 10log (22.37) = 24.49 > 24dBm
- 11dBm + 10log (21.95) = 24.41 > 24dBm
- 11dBm + 10log (5725.00 - 5708.94) = 23.05 < 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				
54	5270	16.55	16.60	90.894	19.59	19.83	Pass
62	5310	16.43	16.78	91.597	19.62	19.83	Pass
102	5510	16.10	16.65	86.976	19.39	19.83	Pass
110	5550	16.26	16.71	89.148	19.50	19.83	Pass
134	5670	16.45	16.62	90.077	19.55	19.83	Pass
142	5710 (For U-NII-2C)	15.98	16.01	79.530	19.01	19.83	Pass
142	5710 (For U-NII-3)	5.75	7.20	9.006	9.55	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (42.27) = 27.26 > 24dBm
- 11dBm + 10log (42.23) = 27.25 > 24dBm
- 11dBm + 10log (42.40) = 27.27 > 24dBm
- 11dBm + 10log (42.18) = 27.25 > 24dBm
- 11dBm + 10log (42.16) = 27.24 > 24dBm
- 11dBm + 10log (5725.00 - 5688.85) = 26.58 > 24dBm

Chain 1

- 11dBm + 10log (42.42) = 27.27 > 24dBm
- 11dBm + 10log (42.43) = 27.27 > 24dBm
- 11dBm + 10log (42.47) = 27.28 > 24dBm
- 11dBm + 10log (42.29) = 27.26 > 24dBm
- 11dBm + 10log (42.07) = 27.23 > 24dBm
- 11dBm + 10log (5725.00 - 5688.63) = 26.60 > 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				
58	5290	16.21	16.62	87.703	19.43	19.83	Pass
106	5530	16.43	16.95	93.499	19.71	19.83	Pass
122	5610	16.49	16.83	92.760	19.67	19.83	Pass
138	5690 (For U-NII-2C)	16.28	16.58	87.961	19.44	19.83	Pass
138	5690 (For U-NII-3)	3.30	3.32	4.286	6.32	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5500-5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $30 - (10.17 - 6) = 25.83\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(82.60) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.03) = 30.19 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.60) = 30.22 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.47) = 29.84 > 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(82.50) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.75) = 30.17 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.12) = 30.14 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.66) = 29.83 > 24\text{dBm}$

802.11ax (HE20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	16.63	16.84	94.332	19.75	19.83	Pass
60	5300	16.47	17.06	95.177	19.79	19.83	Pass
64	5320	16.45	16.99	94.160	19.74	19.83	Pass
100	5500	15.13	15.73	69.995	18.45	19.83	Pass
116	5580	15.38	15.83	72.797	18.62	19.83	Pass
140	5700	15.39	15.61	70.985	18.51	19.83	Pass
144	5720 (For U-NII-2C)	15.47	15.45	70.312	18.47	18.86	Pass
144	5720 (For U-NII-3)	10.89	7.82	18.328	12.63	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5500-5700MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $23.03 - (10.17 - 6) = 18.86\text{dBm}$.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $30 - (10.17 - 6) = 25.83\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(21.51) = 24.32 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.87) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.89) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.08) = 24.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.43) = 24.31 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.86) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5709.02) = 23.03 < 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(21.55) = 24.33 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.93) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.35) = 24.29 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.90) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(22.37) = 24.49 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.95) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5708.94) = 23.05 < 24\text{dBm}$

802.11ax (HE40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	16.57	16.62	91.314	19.61	19.83	Pass
62	5310	16.45	16.81	92.130	19.64	19.83	Pass
102	5510	16.12	16.68	87.485	19.42	19.83	Pass
110	5550	16.28	16.73	89.560	19.52	19.83	Pass
134	5670	16.49	16.64	90.697	19.58	19.83	Pass
142	5710 (For U-NII-2C)	16.00	16.03	79.897	19.03	19.83	Pass
142	5710 (For U-NII-3)	5.80	7.24	9.099	9.59	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5500-5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 24 - (10.17 - 6) = 19.83dBm.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to 30 - (10.17 - 6) = 25.83dBm.

Chain 0

- 11dBm + 10log (42.27) = 27.26 > 24dBm
- 11dBm + 10log (42.23) = 27.25 > 24dBm
- 11dBm + 10log (42.40) = 27.27 > 24dBm
- 11dBm + 10log (42.18) = 27.25 > 24dBm
- 11dBm + 10log (42.16) = 27.24 > 24dBm
- 11dBm + 10log (5725.00 - 5688.85) = 26.58 > 24dBm

Chain 1

- 11dBm + 10log (42.42) = 27.27 > 24dBm
- 11dBm + 10log (42.43) = 27.27 > 24dBm
- 11dBm + 10log (42.47) = 27.28 > 24dBm
- 11dBm + 10log (42.29) = 27.26 > 24dBm
- 11dBm + 10log (42.07) = 27.23 > 24dBm
- 11dBm + 10log (5725.00 - 5688.63) = 26.60 > 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				
58	5290	16.27	16.65	88.602	19.47	19.83	Pass
106	5530	16.46	16.98	94.147	19.74	19.83	Pass
122	5610	16.51	16.88	93.524	19.71	19.83	Pass
138	5690 (For U-NII-2C)	16.30	16.60	88.367	19.46	19.83	Pass
138	5690 (For U-NII-3)	3.35	3.39	4.345	6.38	25.83	Pass

Note:

- 5260-5320MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5500-5720MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $24 - (10.17 - 6) = 19.83\text{dBm}$.
- 5745-5825MHz: Antenna gain = 10.17dBi > 6dBi, so the power limit shall be reduced to $30 - (10.17 - 6) = 25.83\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(82.60) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.03) = 30.19 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.60) = 30.22 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.47) = 29.84 > 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(82.50) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.75) = 30.17 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.12) = 30.14 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.66) = 29.83 > 24\text{dBm}$

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				
52	5260	13.59	13.80	46.844	16.71	16.89	Pass
60	5300	13.42	14.01	47.155	16.74	16.89	Pass
64	5320	13.41	13.91	46.532	16.68	16.89	Pass
100	5500	12.09	12.70	34.802	15.42	16.89	Pass
116	5580	12.34	12.79	36.150	15.58	16.89	Pass
140	5700	12.35	12.57	35.251	15.47	16.89	Pass
144	5720 (For U-NII-2C)	12.42	12.39	34.796	15.42	15.92	Pass
144	5720 (For U-NII-3)	7.84	4.79	9.094	9.59	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5700MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5720MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.03 - (13.11 - 6) = 15.92\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(21.51) = 24.32 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.87) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.89) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.08) = 24.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.43) = 24.31 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.86) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5709.02) = 23.03 < 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(21.55) = 24.33 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.93) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.35) = 24.29 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.90) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(22.37) = 24.49 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.95) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5708.94) = 23.05 < 24\text{dBm}$

802.11ac (VHT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	13.54	13.59	45.450	16.58	16.89	Pass
62	5310	13.42	13.77	45.802	16.61	16.89	Pass
102	5510	13.09	13.64	43.491	16.38	16.89	Pass
110	5550	13.25	13.70	44.577	16.49	16.89	Pass
134	5670	13.44	13.61	45.042	16.54	16.89	Pass
142	5710 (For U-NII-2C)	12.97	13.00	39.768	16.00	16.89	Pass
142	5710 (For U-NII-3)	2.74	4.19	4.504	6.54	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5720MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(42.27) = 27.26 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.23) = 27.25 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.40) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.18) = 27.25 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.16) = 27.24 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5688.85) = 26.58 > 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(42.42) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.43) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.47) = 27.28 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.29) = 27.26 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.07) = 27.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5688.63) = 26.60 > 24\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	13.20	13.61	43.854	16.42	16.89	Pass
106	5530	13.42	13.94	46.753	16.70	16.89	Pass
122	5610	13.48	13.82	46.383	16.66	16.89	Pass
138	5690 (For U-NII-2C)	13.27	13.57	43.983	16.43	16.89	Pass
138	5690 (For U-NII-3)	0.29	0.31	2.143	3.31	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5720MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(82.60) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.03) = 30.19 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.60) = 30.22 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.47) = 29.84 > 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(82.50) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.75) = 30.17 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.12) = 30.14 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.66) = 29.83 > 24\text{dBm}$

802.11ax (HE20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	13.62	13.83	47.169	16.74	16.89	Pass
60	5300	13.46	14.05	47.592	16.78	16.89	Pass
64	5320	13.44	13.98	47.084	16.73	16.89	Pass
100	5500	12.12	12.72	35.000	15.44	16.89	Pass
116	5580	12.37	12.82	36.401	15.61	16.89	Pass
140	5700	12.38	12.60	35.495	15.50	16.89	Pass
144	5720 (For U-NII-2C)	12.46	12.44	35.159	15.46	15.92	Pass
144	5720 (For U-NII-3)	7.88	4.81	9.165	9.62	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5700MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5720MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.03 - (13.11 - 6) = 15.92\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(21.51) = 24.32 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.87) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.89) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.08) = 24.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.43) = 24.31 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.86) = 24.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5709.02) = 23.03 < 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(21.55) = 24.33 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.93) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.35) = 24.29 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.90) = 24.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(22.37) = 24.49 > 24\text{dBm}$
- $11\text{dBm} + 10\log(21.95) = 24.41 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5708.94) = 23.05 < 24\text{dBm}$

802.11ax (HE40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	13.56	13.61	45.660	16.60	16.89	Pass
62	5310	13.44	13.80	46.068	16.63	16.89	Pass
102	5510	13.11	13.67	43.745	16.41	16.89	Pass
110	5550	13.27	13.72	44.783	16.51	16.89	Pass
134	5670	13.48	13.63	45.352	16.57	16.89	Pass
142	5710 (For U-NII-2C)	12.99	13.02	39.951	16.02	16.89	Pass
142	5710 (For U-NII-3)	2.79	4.23	4.550	6.58	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5720MHz: Directional gain = Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(42.27) = 27.26 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.23) = 27.25 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.40) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.18) = 27.25 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.16) = 27.24 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5688.85) = 26.58 > 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(42.42) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.43) = 27.27 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.47) = 27.28 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.29) = 27.26 > 24\text{dBm}$
- $11\text{dBm} + 10\log(42.07) = 27.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5688.63) = 26.60 > 24\text{dBm}$

802.11ax (HE80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	13.26	13.64	44.304	16.46	16.89	Pass
106	5530	13.45	13.97	47.077	16.73	16.89	Pass
122	5610	13.50	13.87	46.765	16.70	16.89	Pass
138	5690 (For U-NII-2C)	13.29	13.59	44.186	16.45	16.89	Pass
138	5690 (For U-NII-3)	0.34	0.38	2.173	3.37	22.89	Pass

Note:

- 5260-5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5500-5720MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (13.11 - 6) = 16.89\text{dBm}$.
- 5745-5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.

Chain 0

- $11\text{dBm} + 10\log(82.60) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.03) = 30.19 > 24\text{dBm}$
- $11\text{dBm} + 10\log(83.60) = 30.22 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.47) = 29.84 > 24\text{dBm}$

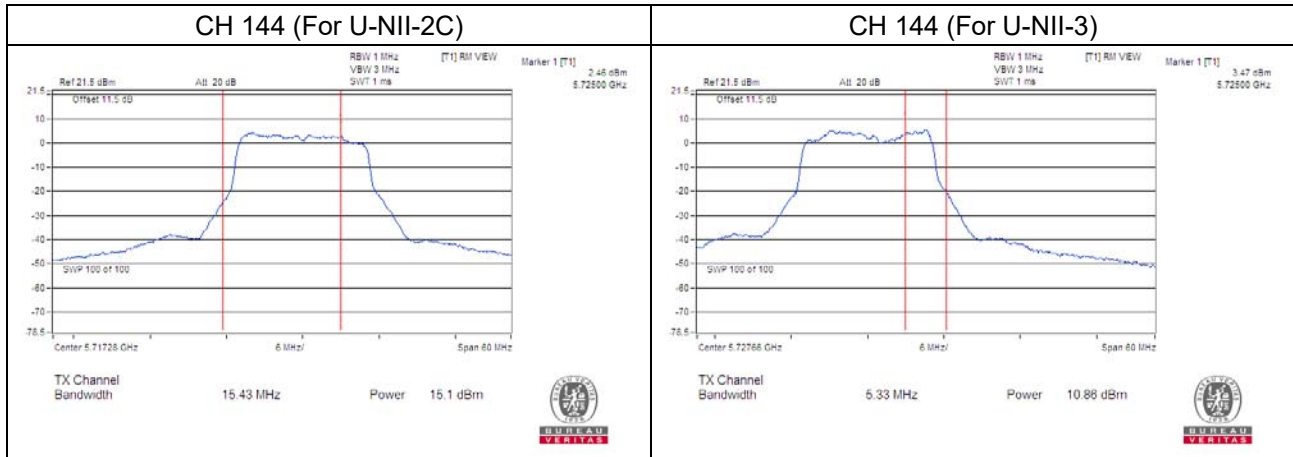
Chain 1

- $11\text{dBm} + 10\log(82.50) = 30.16 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.75) = 30.17 > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.12) = 30.14 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.66) = 29.83 > 24\text{dBm}$

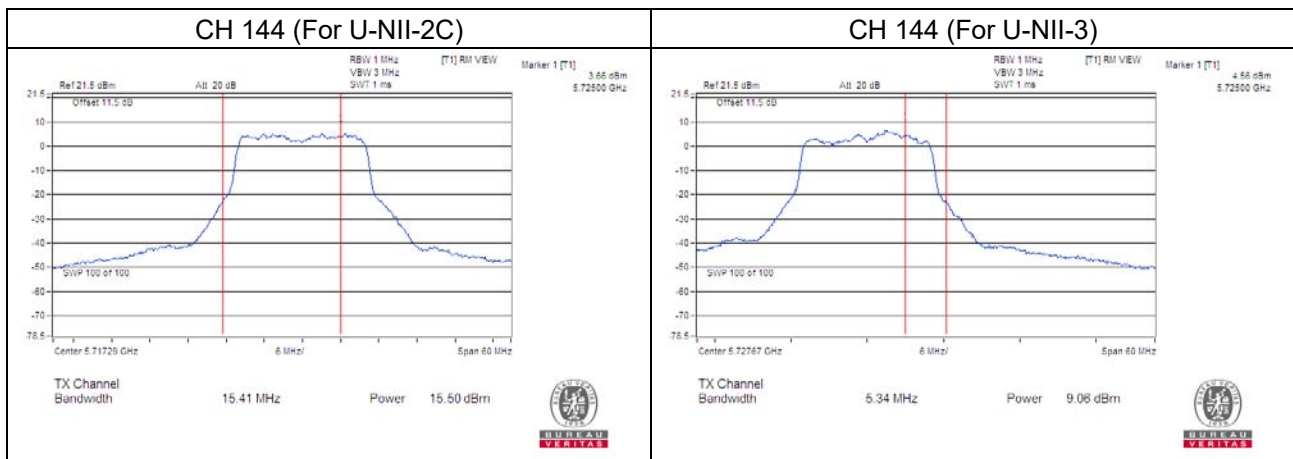
Straddle channel power plots:

802.11a

Chain 0

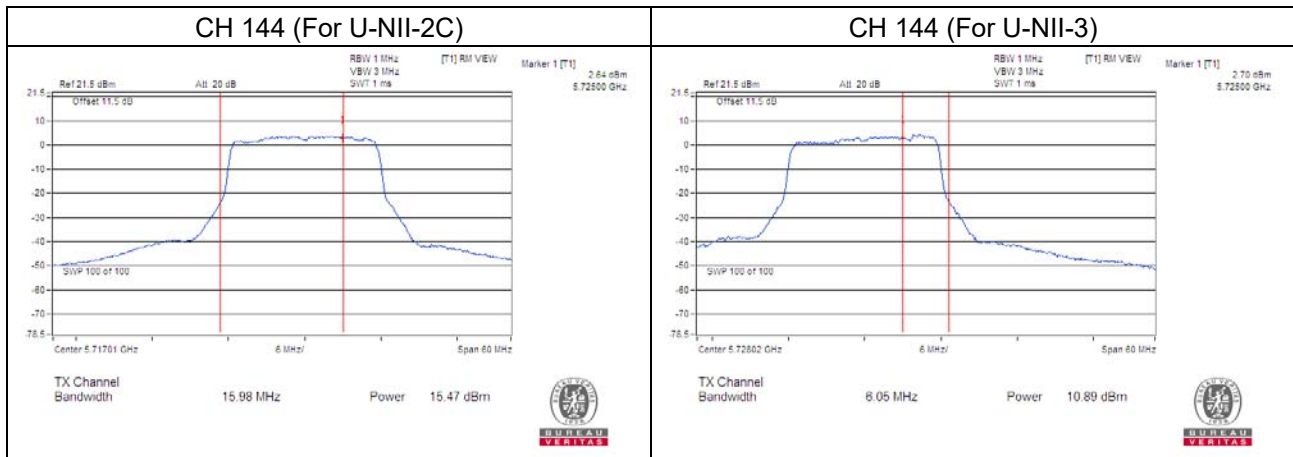


Chain 1

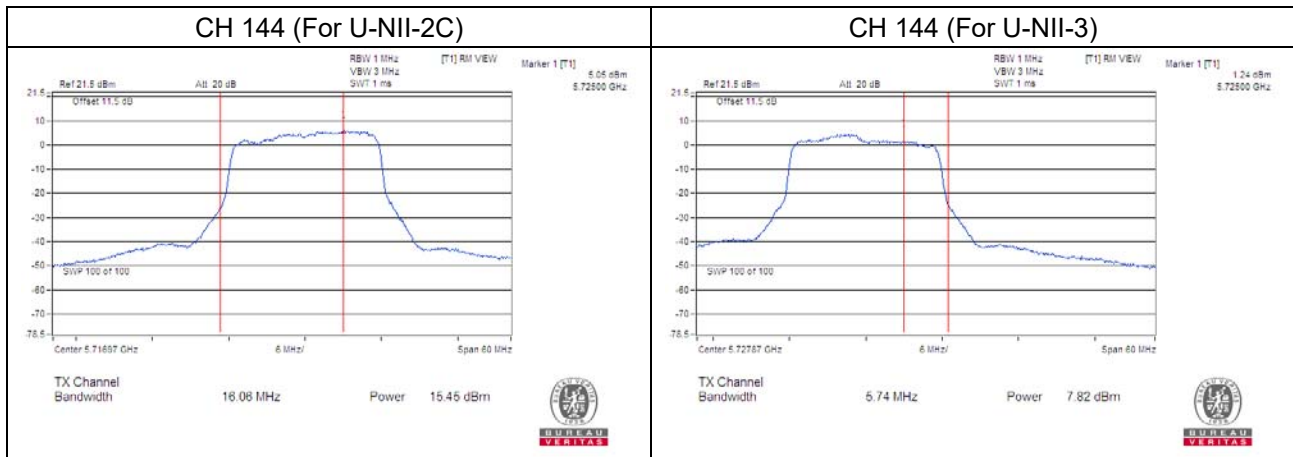


802.11ax (HE20)

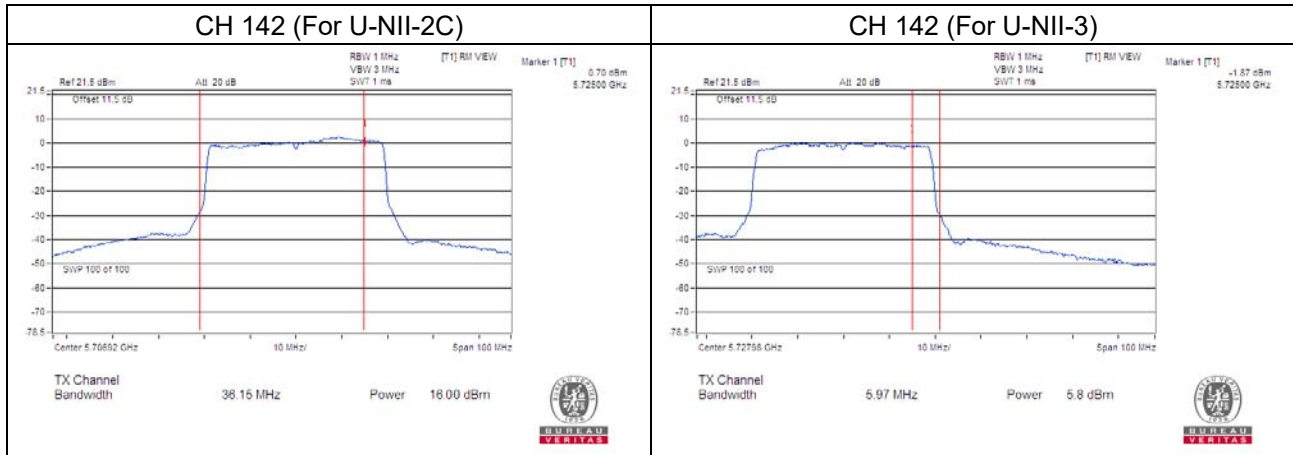
Chain 0



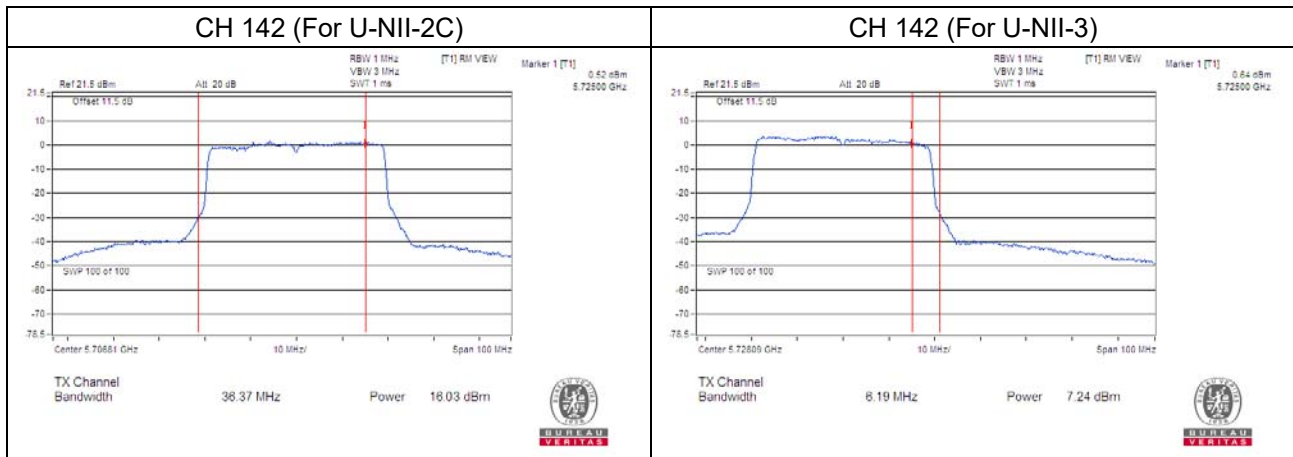
Chain 1



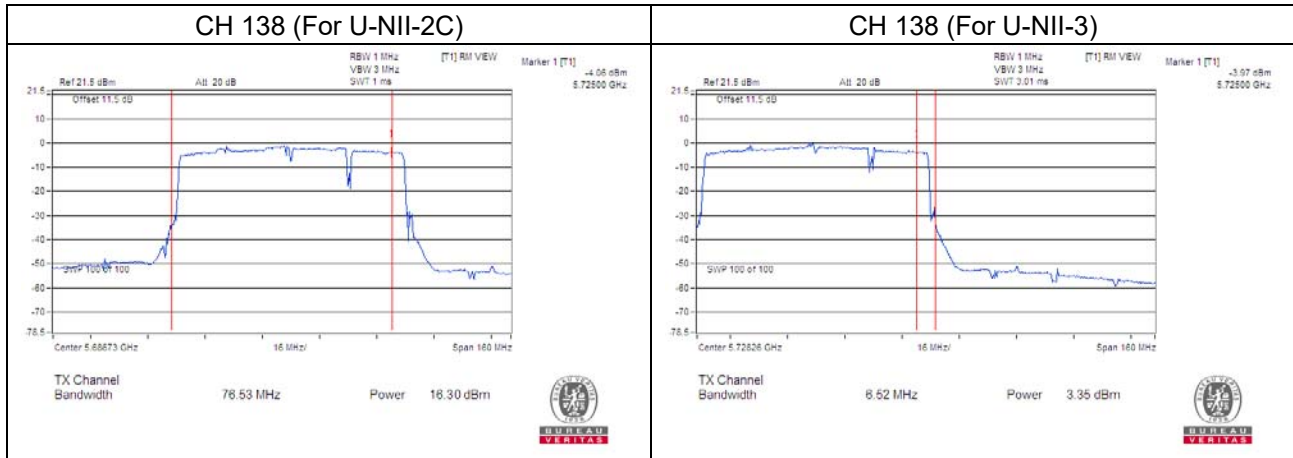
802.11ax (HE40)
Chain 0



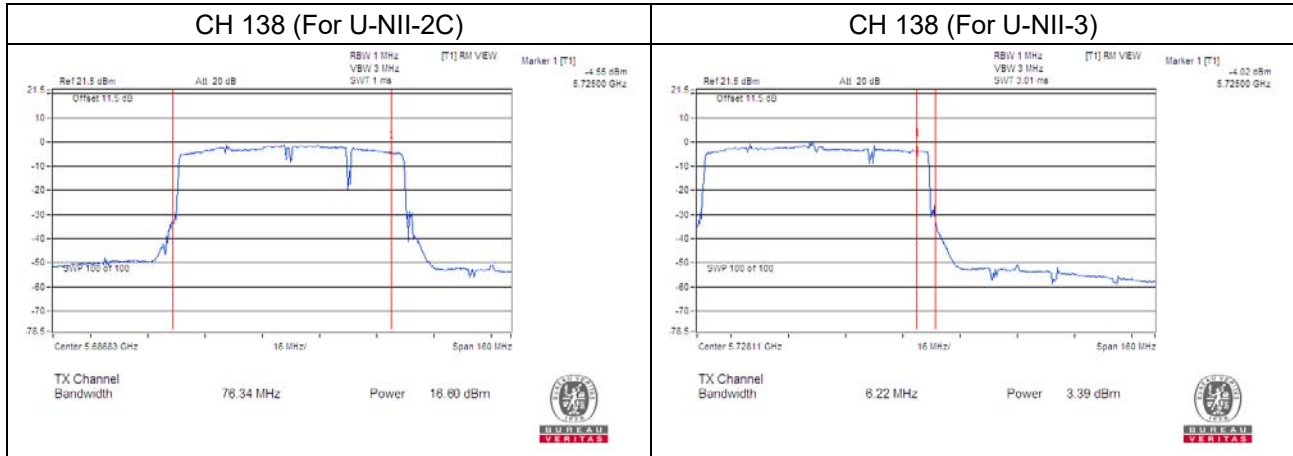
Chain 1



802.11ax (HE80)
Chain 0



Chain 1



26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.67	20.53
60	5300	20.66	20.66
64	5320	20.68	20.70
100	5500	20.31	20.76
116	5580	20.75	20.77
140	5700	20.54	20.75
144	5720 (For U-NII-2C)	15.43	15.41
144	5720 (For U-NII-3)	5.33	5.34

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

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

802.11ax (HE20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	21.51	21.55
60	5300	21.87	21.93
64	5320	21.89	21.35
100	5500	21.08	21.90
116	5580	21.43	22.37
140	5700	21.86	21.95
144	5720 (For U-NII-2C)	15.98	16.06
144	5720 (For U-NII-3)	6.05	5.74

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

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

802.11ax (HE40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	42.27	42.42
62	5310	42.23	42.43
102	5510	42.40	42.47
110	5550	42.18	42.29
134	5670	42.16	42.07
142	5710 (For U-NII-2C)	36.15	36.37
142	5710 (For U-NII-3)	5.97	6.19

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

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

802.11ax (HE80)

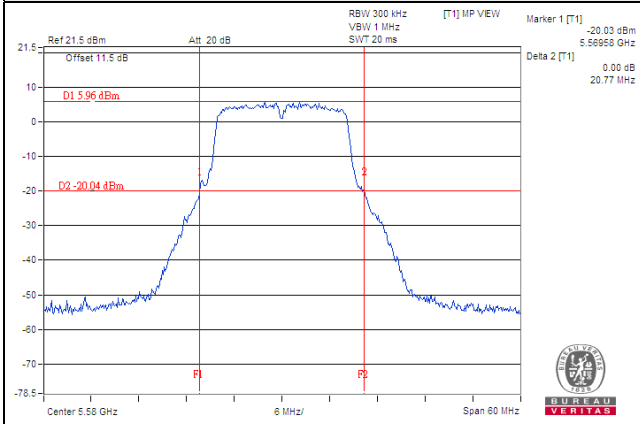
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.60	82.50
106	5530	83.03	82.75
122	5610	83.60	82.12
138	5690 (For U-NII-2C)	76.53	76.34
138	5690 (For U-NII-3)	6.52	6.22

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

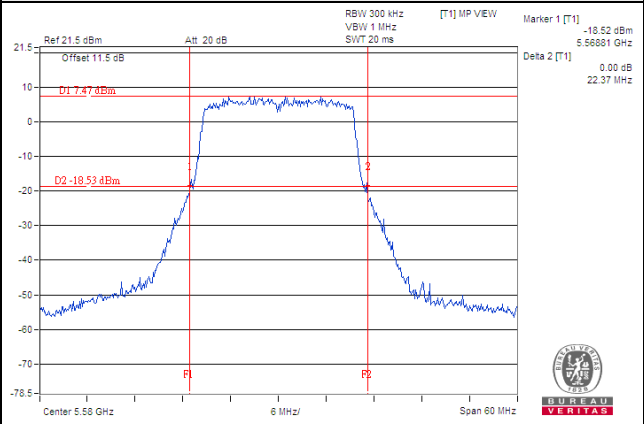
For CH138 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

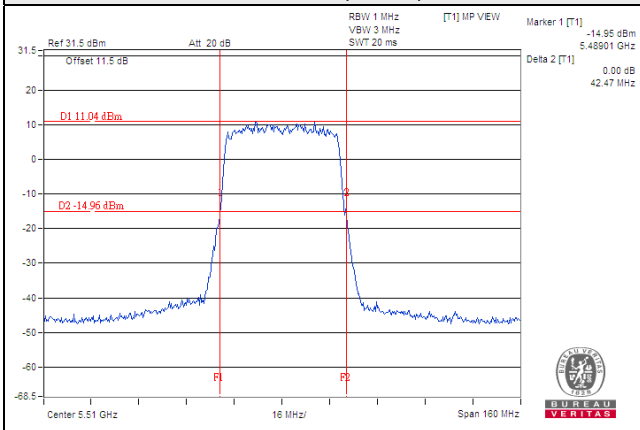
802.11a



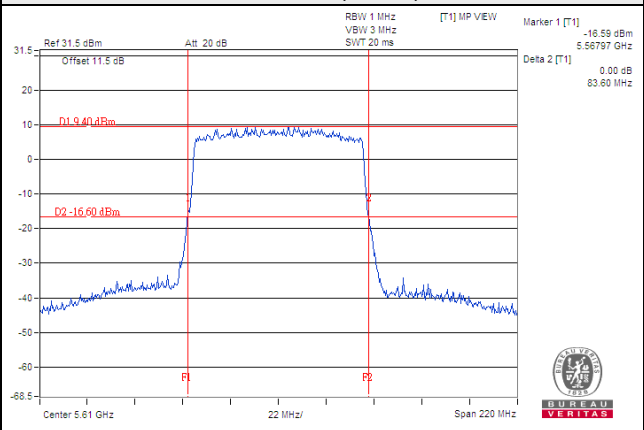
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



EUT Average Power

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	18.80	75.921
5470~5725	18.34	68.204

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.73	93.871
5470~5725	18.56	71.807

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.60	91.176
5470~5725	19.53	89.663

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.75	94.304
5470~5725	18.59	72.296

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.62	91.597
5470~5725	19.55	90.077

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.43	87.703
5470~5725	19.71	93.499

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.79	95.177
5470~5725	18.62	72.797

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.64	92.130
5470~5725	19.58	90.697

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.47	88.602
5470~5725	19.74	94.147

Beamforming Mode

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.74	47.155
5470~5725	15.58	36.150

802.11ac (VHT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.61	45.802
5470~5725	16.54	45.042

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.42	43.854
5470~5725	16.70	46.753

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.78	47.592
5470~5725	15.61	36.401

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.63	46.068
5470~5725	16.57	45.352

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	16.46	44.304
5470~5725	16.73	47.077

Scanning radio (Radio 3)

Power Output:

802.11a

Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
52	5260	130.617	21.16	24.00	Pass
60	5300	136.458	21.35	24.00	Pass
64	5320	84.528	19.27	24.00	Pass
100	5500	76.208	18.82	24.00	Pass
116	5580	110.408	20.43	24.00	Pass
140	5700	67.920	18.32	24.00	Pass
144	5720 (For U-NII-2C)	83.368	19.21	24.00	Pass
144	5720 (For U-NII-3)	20.324	13.08	30.00	Pass

Note:

- $11\text{dBm} + 10\log(28.73) = 25.58 > 24\text{dBm}$
- $11\text{dBm} + 10\log(28.87) = 25.60 > 24\text{dBm}$
- $11\text{dBm} + 10\log(25.14) = 25.00 > 24\text{dBm}$
- $11\text{dBm} + 10\log(25.50) = 25.06 > 24\text{dBm}$
- $11\text{dBm} + 10\log(39.52) = 26.96 > 24\text{dBm}$
- $11\text{dBm} + 10\log(26.49) = 25.23 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5703.88) = 24.24 > 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
52	5260	130.017	21.14	24.00	Pass
60	5300	134.896	21.30	24.00	Pass
64	5320	85.507	19.32	24.00	Pass
100	5500	78.524	18.95	24.00	Pass
116	5580	109.648	20.40	24.00	Pass
140	5700	66.681	18.24	24.00	Pass
144	5720 (For U-NII-2C)	79.616	19.01	24.00	Pass
144	5720 (For U-NII-3)	21.281	13.28	30.00	Pass

Note:

- $11\text{dBm} + 10\log(28.51) = 25.54 > 24\text{dBm}$
- $11\text{dBm} + 10\log(29.43) = 25.68 > 24\text{dBm}$
- $11\text{dBm} + 10\log(26.40) = 25.21 > 24\text{dBm}$
- $11\text{dBm} + 10\log(27.50) = 25.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(41.07) = 27.13 > 24\text{dBm}$
- $11\text{dBm} + 10\log(27.57) = 25.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5703.98) = 24.22 > 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
54	5270	106.660	20.28	24.00	Pass
62	5310	64.714	18.11	24.00	Pass
102	5510	57.943	17.63	24.00	Pass
110	5550	101.158	20.05	24.00	Pass
134	5670	69.823	18.44	24.00	Pass
142	5710 (For U-NII-2C)	87.297	19.41	24.00	Pass
142	5710 (For U-NII-3)	8.356	9.22	30.00	Pass

Note:

1. $11\text{dBm} + 10\log(54.37) = 28.35 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(49.84) = 27.97 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(50.88) = 28.06 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(76.52) = 29.83 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(53.59) = 28.29 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5678.04) = 27.71 > 24\text{dBm}$

802.11ac (VHT20)

Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
52	5260	133.352	21.25	24.00	Pass
60	5300	138.995	21.43	24.00	Pass
64	5320	87.498	19.42	24.00	Pass
100	5500	80.353	19.05	24.00	Pass
116	5580	112.980	20.53	24.00	Pass
140	5700	67.920	18.32	24.00	Pass
144	5720 (For U-NII-2C)	80.724	19.07	24.00	Pass
144	5720 (For U-NII-3)	21.827	13.39	30.00	Pass

Note:

- $11\text{dBm} + 10\log(28.51) = 25.54 > 24\text{dBm}$
- $11\text{dBm} + 10\log(29.43) = 25.68 > 24\text{dBm}$
- $11\text{dBm} + 10\log(26.40) = 25.21 > 24\text{dBm}$
- $11\text{dBm} + 10\log(27.50) = 25.39 > 24\text{dBm}$
- $11\text{dBm} + 10\log(41.07) = 27.13 > 24\text{dBm}$
- $11\text{dBm} + 10\log(27.57) = 25.40 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5703.98) = 24.22 > 24\text{dBm}$

802.11ac (VHT40)

Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
54	5270	107.647	20.32	24.00	Pass
62	5310	66.222	18.21	24.00	Pass
102	5510	59.156	17.72	24.00	Pass
110	5550	103.992	20.17	24.00	Pass
134	5670	71.121	18.52	24.00	Pass
142	5710 (For U-NII-2C)	89.536	19.52	24.00	Pass
142	5710 (For U-NII-3)	8.531	9.31	30.00	Pass

Note:

- $11\text{dBm} + 10\log(54.37) = 28.35 > 24\text{dBm}$
- $11\text{dBm} + 10\log(49.84) = 27.97 > 24\text{dBm}$
- $11\text{dBm} + 10\log(50.88) = 28.06 > 24\text{dBm}$
- $11\text{dBm} + 10\log(76.52) = 29.83 > 24\text{dBm}$
- $11\text{dBm} + 10\log(53.59) = 28.29 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5678.04) = 27.71 > 24\text{dBm}$

802.11ac (VHT80)

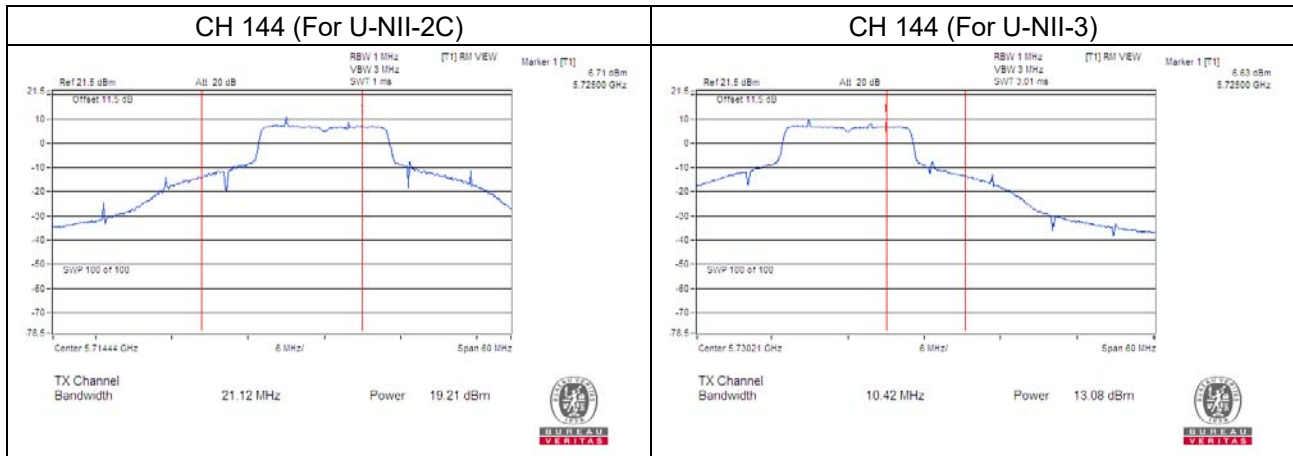
Chan.	Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Pass / Fail
58	5290	3.412	5.33	24.00	Pass
106	5530	11.561	10.63	24.00	Pass
122	5610	64.863	18.12	24.00	Pass
138	5690 (For U-NII-2C)	89.536	19.52	24.00	Pass
138	5690 (For U-NII-3)	8.531	9.31	30.00	Pass

Note:

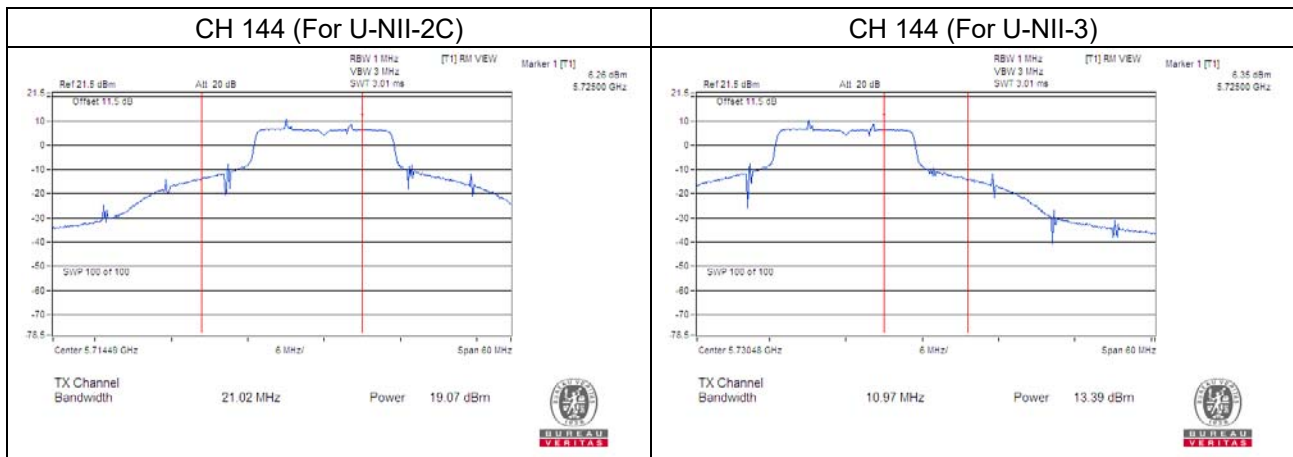
1. $11\text{dBm} + 10\log(99.26) = 30.96 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(98.77) = 30.94 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(103.67) = 31.15 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5616.69) = 31.35 > 24\text{dBm}$

Straddle channel power plots:

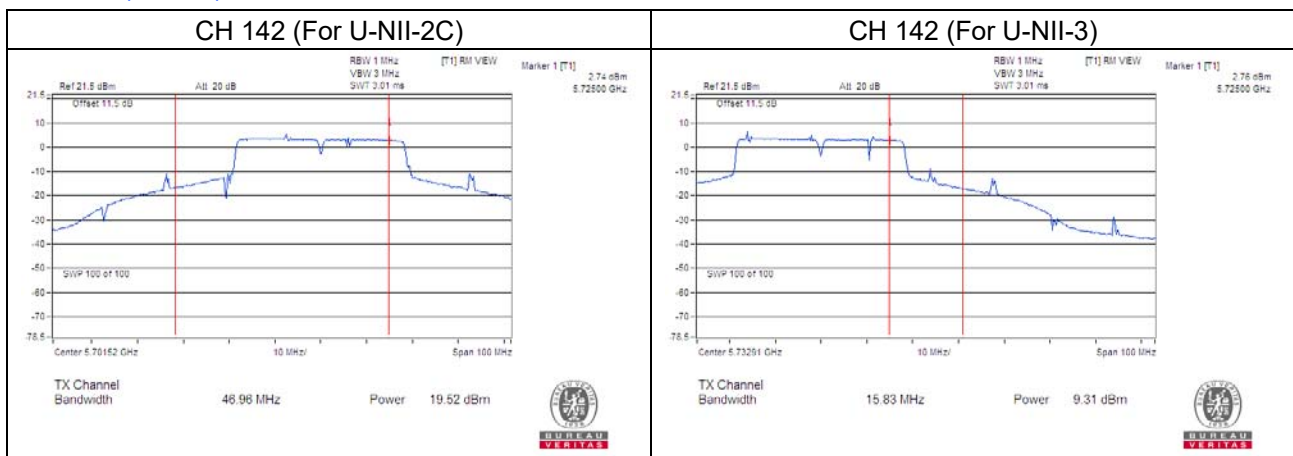
802.11a



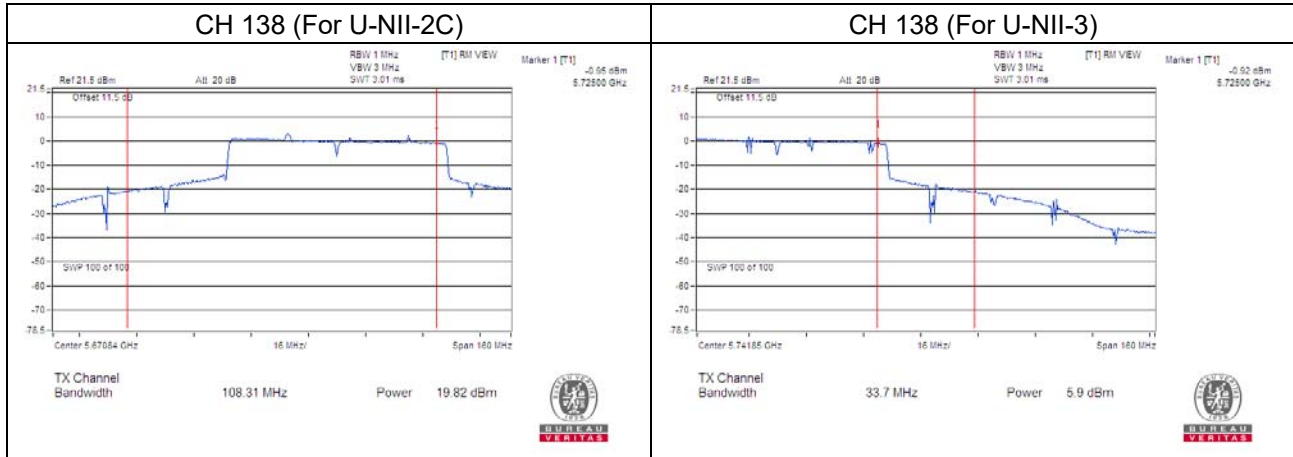
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
52	5260	28.73
60	5300	28.87
64	5320	25.14
100	5500	25.50
116	5580	39.52
140	5700	26.49
144	5720 (For U-NII-2C)	21.12
144	5720 (For U-NII-3)	10.42

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

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

802.11ac (VHT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
52	5260	28.51
60	5300	29.43
64	5320	26.40
100	5500	27.50
116	5580	41.07
140	5700	27.57
144	5720 (For U-NII-2C)	21.02
144	5720 (For U-NII-3)	10.97

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

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

802.11ac (VHT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
54	5270	54.37
62	5310	49.84
102	5510	50.88
110	5550	76.52
134	5670	53.59
142	5710 (For U-NII-2C)	46.96
142	5710 (For U-NII-3)	15.83

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

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

802.11ac (VHT80)

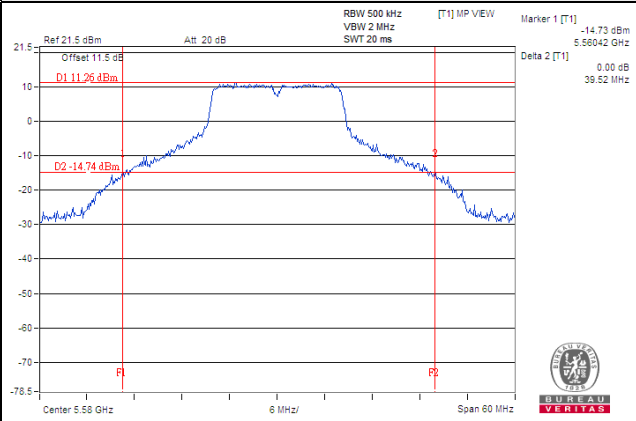
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
58	5290	99.26
106	5530	98.77
122	5610	103.67
138	5690 (For U-NII-2C)	108.31
138	5690 (For U-NII-3)	33.70

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

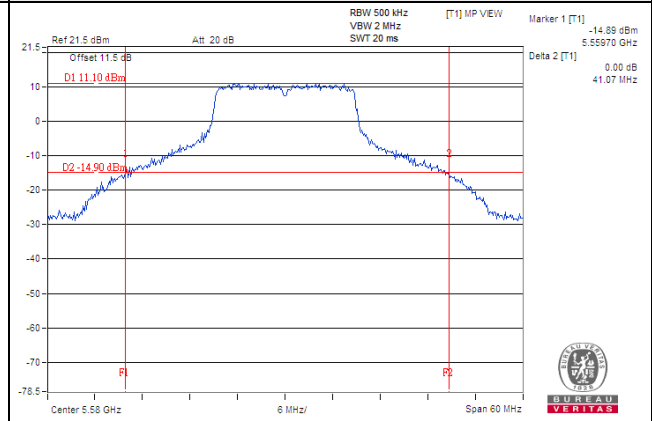
For CH138 (UNII-3 Band): The 26dBc bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

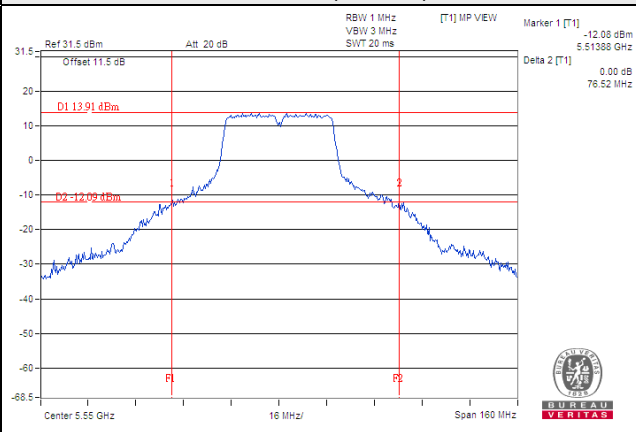
802.11a



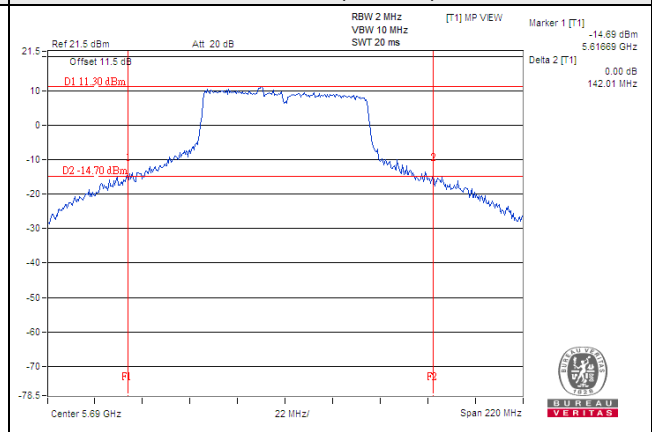
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



EUT Average Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	21.35	136.458
5470~5725	20.43	110.408

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	21.30	134.896
5470~5725	20.40	109.648

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	20.28	106.660
5470~5725	20.05	101.158

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	21.43	138.995
5470~5725	20.53	112.980

802.11ac (VHT40)

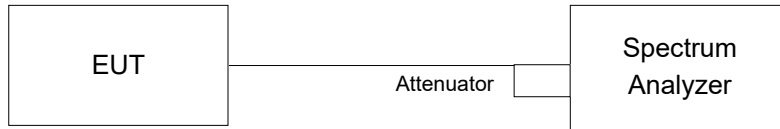
Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	20.32	107.647
5470~5725	20.17	103.992

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	5.33	3.412
5470~5725	19.52	89.536

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

5G traffic radio (Radio 2)

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
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
144	5720 (For U-NII-2C)	13.28	13.28
144	5720 (For U-NII-3)	3.16	3.16

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

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

802.11ax (HE20)

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

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

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

802.11ax (HE40)

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

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

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

802.11ax (HE80)

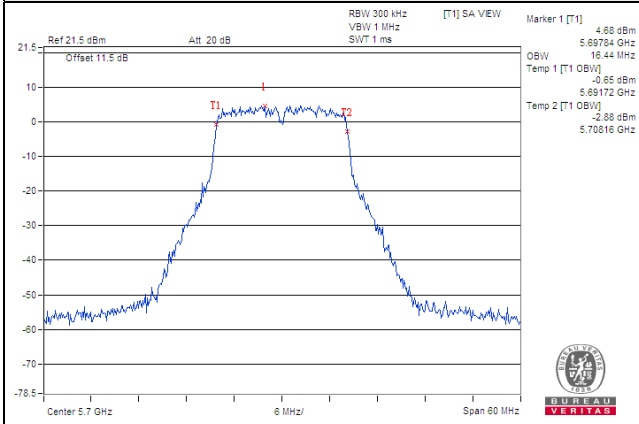
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	77.28	77.28
106	5530	77.04	77.04
122	5610	77.28	77.28
138	5690 (For U-NII-2C)	73.64	73.64
138	5690 (For U-NII-3)	3.64	3.64

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

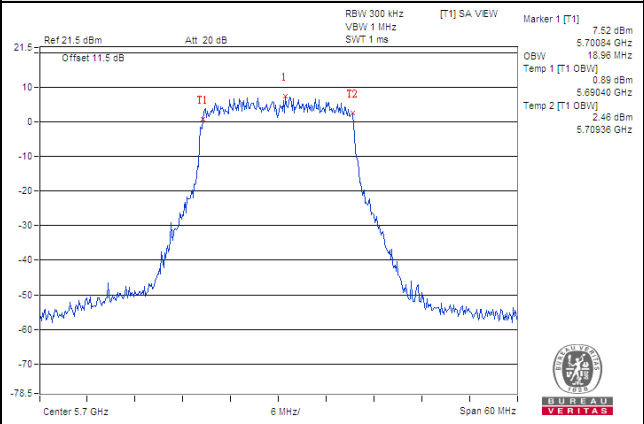
For CH138 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

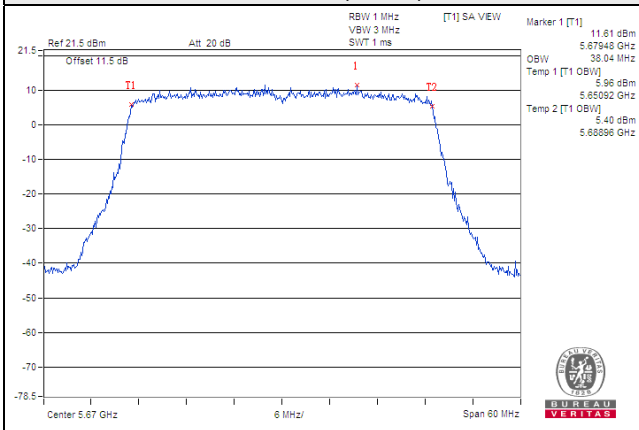
802.11a



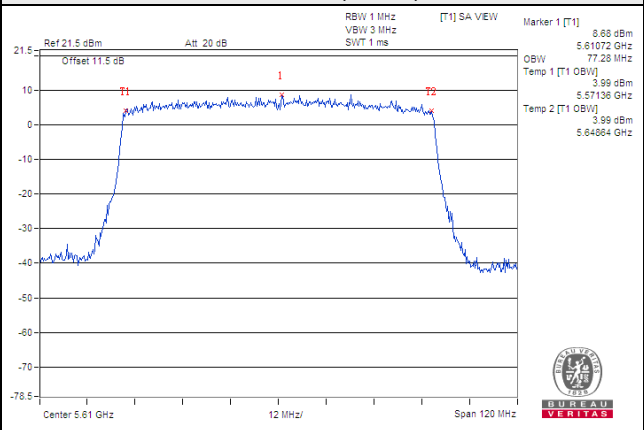
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



Scanning radio (Radio 3)

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
52	5260	17.64
60	5300	18.00
64	5320	17.16
100	5500	17.16
116	5580	22.32
140	5700	17.28
144	5720 (For U-NII-2C)	14.24
144	5720 (For U-NII-3)	3.64

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

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

802.11ac (VHT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
52	5260	18.48
60	5300	18.60
64	5320	18.24
100	5500	18.24
116	5580	22.44
140	5700	18.24
144	5720 (For U-NII-2C)	14.60
144	5720 (For U-NII-3)	4.24

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

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

802.11ac (VHT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
54	5270	37.56
62	5310	37.20
102	5510	37.32
110	5550	38.04
134	5670	37.44
142	5710 (For U-NII-2C)	33.60
142	5710 (For U-NII-3)	3.84

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

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

802.11ac (VHT80)

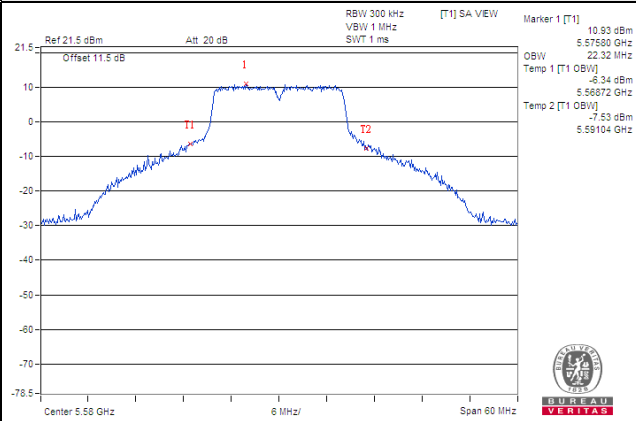
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
58	5290	77.28
106	5530	76.32
122	5610	76.80
138	5690 (For U-NII-2C)	73.88
138	5690 (For U-NII-3)	3.40

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

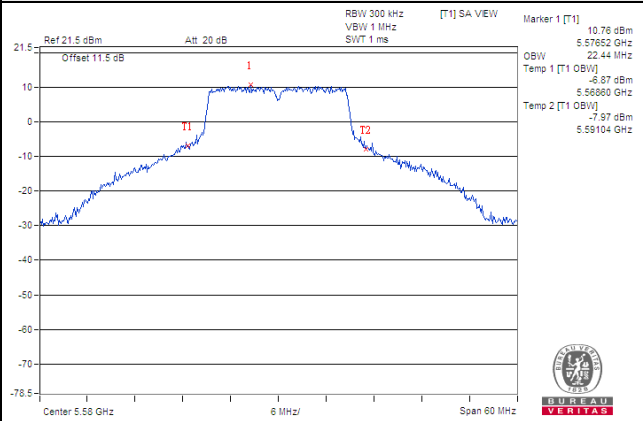
For CH138 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

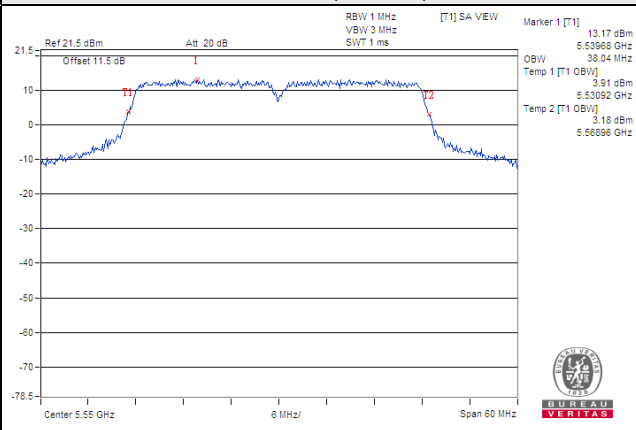
802.11a



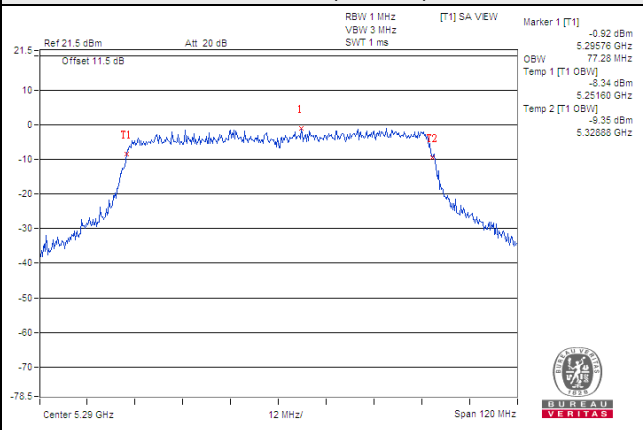
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)

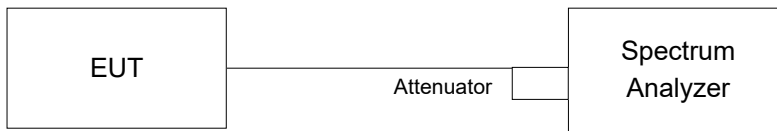


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

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

Using method SA-2

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1MHz, Set VBW \geq 3 MHz, Detector = RMS
- Set Channel power measure = 1MHz
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value and add $10 \log (1/\text{duty cycle})$

For U-NII-3 band:

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW \geq 1 MHz, Detector = RMS
- Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where $\text{BWCF} = 10 \log(500 \text{ kHz} / 300 \text{ kHz})$
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value and add $10 \log (1/\text{duty cycle})$

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

5G traffic radio (Radio 2)

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

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
52	5260	0.41	0.34	0.38	3.76	3.89	Pass
60	5300	0.35	0.46	0.38	3.79	3.89	Pass
64	5320	0.25	0.27	0.38	3.65	3.89	Pass
100	5500	0.05	0.39	0.38	3.61	3.89	Pass
116	5580	0.54	0.12	0.38	3.72	3.89	Pass
140	5700	0.62	0.15	0.38	3.78	3.89	Pass
144	5720 (For U-NII-2C)	0.41	0.00	0.38	3.60	3.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2]$ = 13.11dBi > 6dBi, so the power density limit shall be reduced to $11 - (13.11 - 6) = 3.89\text{dBm}$.
- 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				
52	5260	0.35	-0.02	0.35	3.53	3.89	Pass
60	5300	-0.30	0.56	0.35	3.52	3.89	Pass
64	5320	-0.05	0.59	0.35	3.65	3.89	Pass
100	5500	0.71	-0.53	0.35	3.50	3.89	Pass
116	5580	0.70	-0.51	0.35	3.50	3.89	Pass
140	5700	0.41	0.21	0.35	3.68	3.89	Pass
144	5720 (For U-NII-2C)	-0.18	0.40	0.35	3.48	3.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2]$ = 13.11dBi > 6dBi, so the power density limit shall be reduced to $11 - (13.11 - 6) = 3.89\text{dBm}$.
- 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				
54	5270	-2.22	-2.34	0.79	1.52	3.89	Pass
62	5310	-3.26	-2.35	0.79	1.02	3.89	Pass
102	5510	-1.97	-3.01	0.79	1.34	3.89	Pass
110	5550	-1.99	-1.60	0.79	2.01	3.89	Pass
134	5670	-1.16	-2.07	0.79	2.21	3.89	Pass
142	5710 (For U-NII-2C)	-1.07	-1.72	0.79	2.41	3.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.11 - 6) = 3.89\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

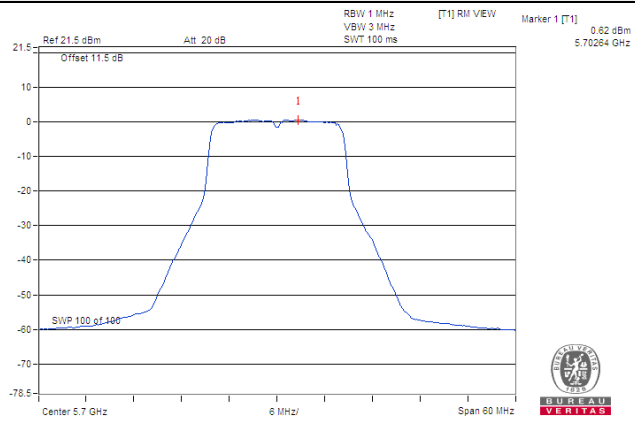
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
58	5290	-6.40	-5.57	0.34	-2.62	3.89	Pass
106	5530	-4.75	-4.26	0.34	-1.15	3.89	Pass
122	5610	-4.51	-3.85	0.34	-0.82	3.89	Pass
138	5690 (For U-NII-2C)	-4.54	-3.96	0.34	-0.89	3.89	Pass

Note:

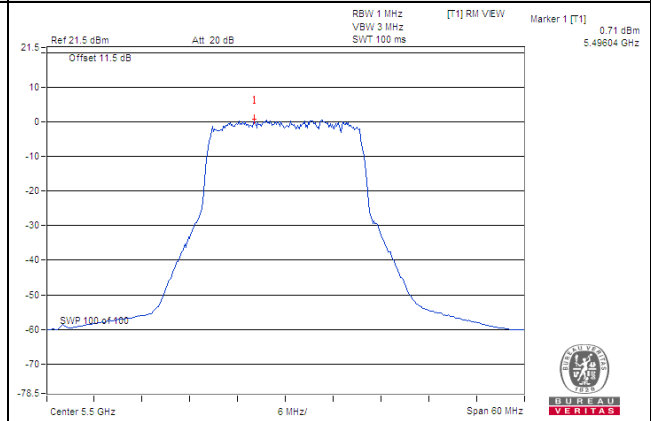
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.11 - 6) = 3.89\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

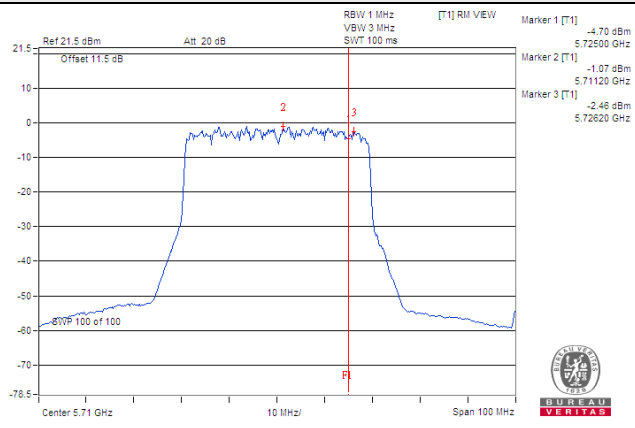
802.11a / Chain 0 / CH 140



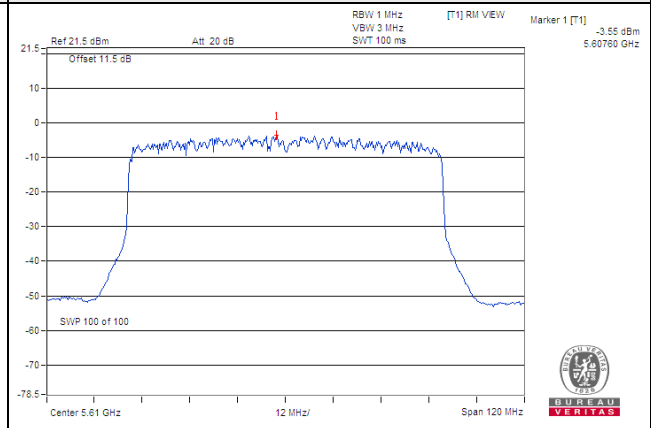
802.11ax (HE20) / Chain 0 / CH 100



802.11ax (HE40) / Chain 0 / CH 142



802.11ax (HE80) / Chain 1 / CH 122



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	144	5720 (For U-NII-3)	-7.62	-5.40	3.01	0.38	-2.01	22.89	Pass
1	144	5720 (For U-NII-3)	-7.82	-5.60	3.01	0.38	-2.21	22.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.
- 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	144	5720 (For U-NII-3)	-9.09	-6.87	3.01	0.35	-3.51	22.89	Pass
1	144	5720 (For U-NII-3)	-9.19	-6.97	3.01	0.35	-3.61	22.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.
- 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	142	5710 (For U-NII-3)	-11.61	-9.39	3.01	0.79	-5.59	22.89	Pass
1	142	5710 (For U-NII-3)	-11.90	-9.68	3.01	0.79	-5.88	22.89	Pass

Note:

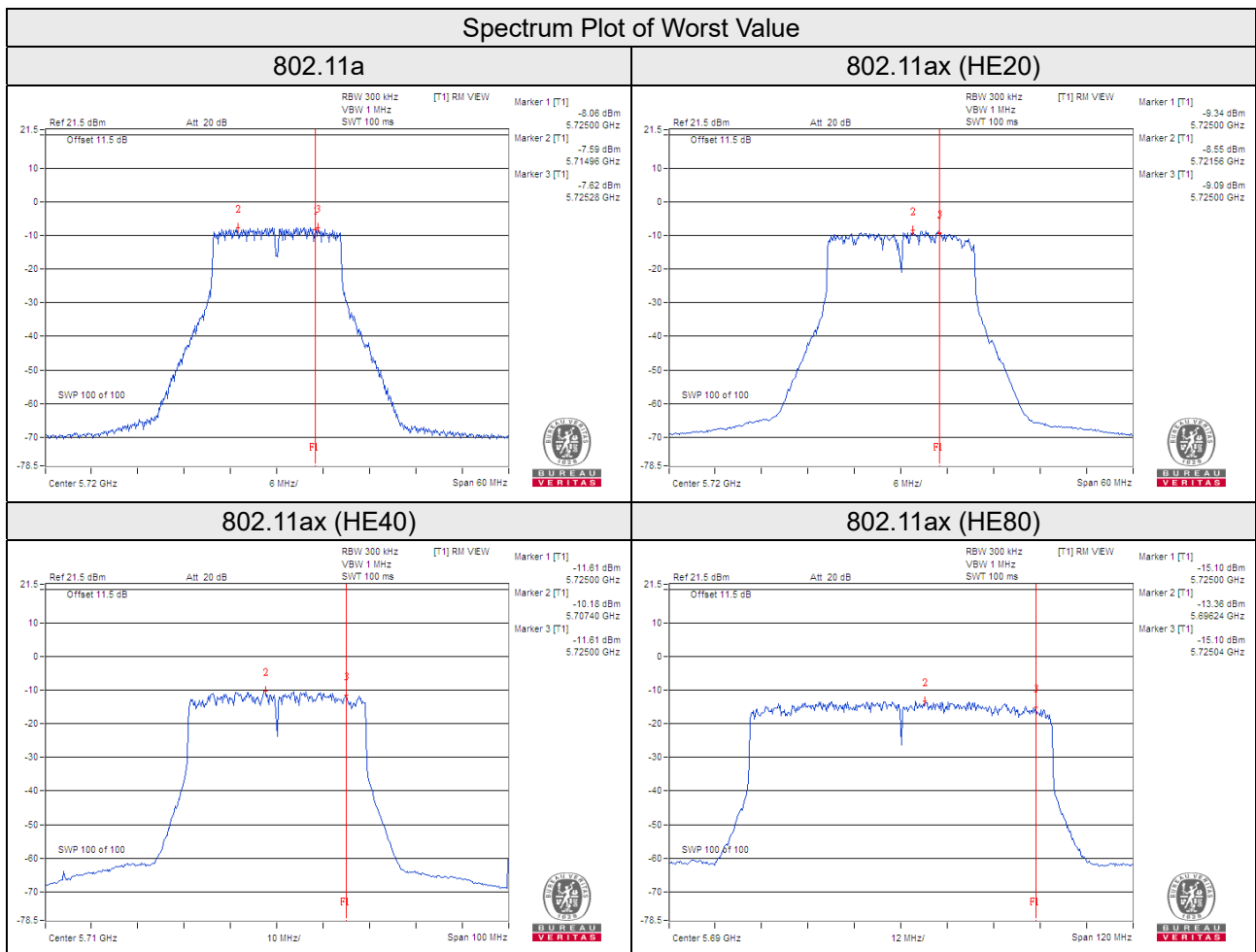
- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.
- 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	138	5690 (For U-NII-3)	-15.10	-12.88	3.01	0.34	-9.53	22.89	Pass
1	138	5690 (For U-NII-3)	-15.92	-13.70	3.01	0.34	-10.35	22.89	Pass

Note:

- 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.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 13.11\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (13.11 - 6) = 22.89\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.



Scanning radio (Radio 3)

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

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
52	5260	6.74	0.24	6.98	11.00	Pass
60	5300	6.99	0.24	7.23	11.00	Pass
64	5320	5.19	0.24	5.43	11.00	Pass
100	5500	4.91	0.24	5.15	11.00	Pass
116	5580	6.54	0.24	6.78	11.00	Pass
140	5700	4.48	0.24	4.72	11.00	Pass
144	5720 (For U-NII-2C)	5.35	0.24	5.59	11.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
52	5260	6.39	0.26	6.65	11.00	Pass
60	5300	6.61	0.26	6.87	11.00	Pass
64	5320	4.77	0.26	5.04	11.00	Pass
100	5500	4.50	0.26	4.77	11.00	Pass
116	5580	6.02	0.26	6.28	11.00	Pass
140	5700	3.96	0.26	4.22	11.00	Pass
144	5720 (For U-NII-2C)	4.90	0.26	5.17	11.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

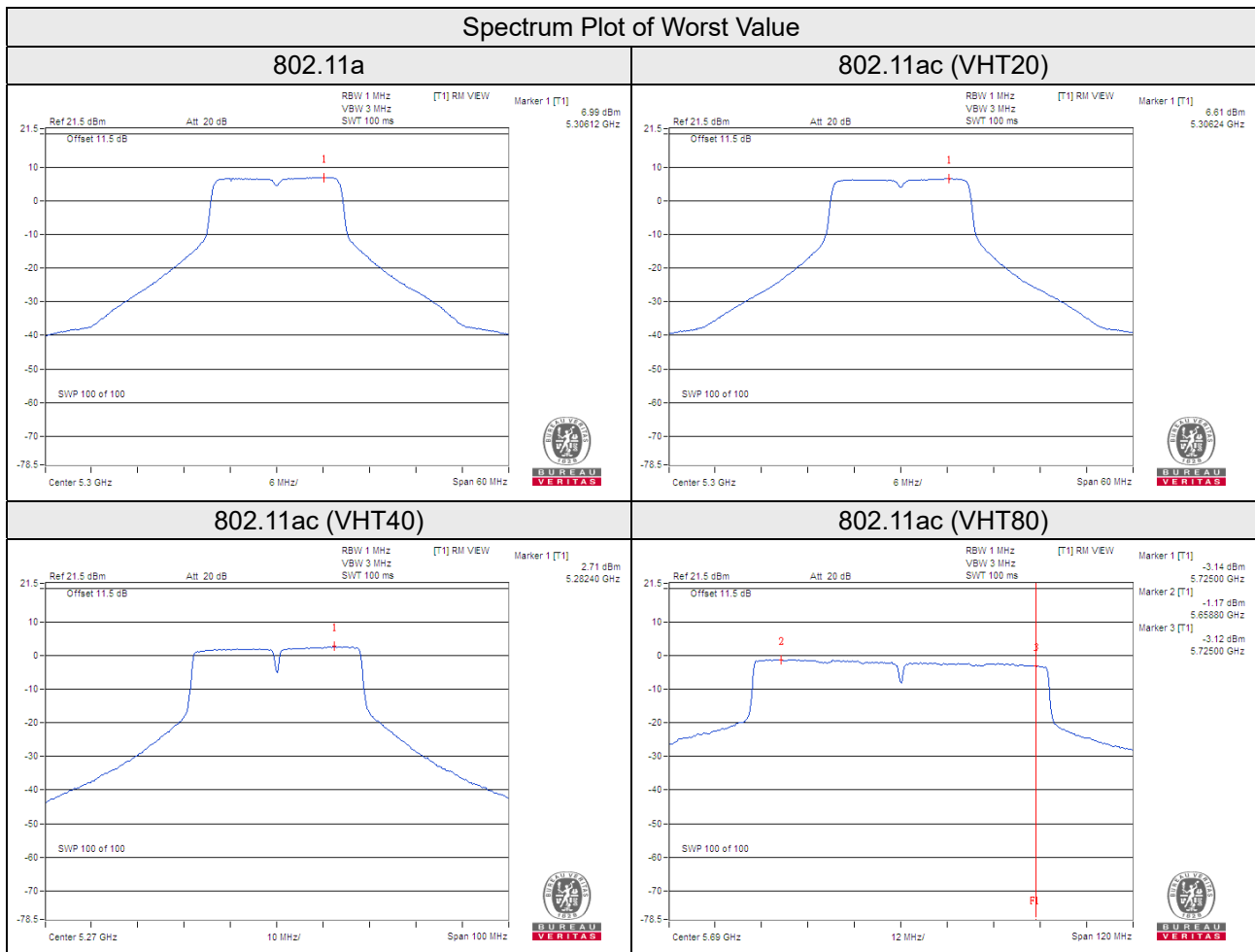
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
54	5270	2.71	0.56	3.27	11.00	Pass
62	5310	0.60	0.56	1.16	11.00	Pass
102	5510	0.09	0.56	0.65	11.00	Pass
110	5550	2.46	0.56	3.02	11.00	Pass
134	5670	1.21	0.56	1.77	11.00	Pass
142	5710 (For U-NII-2C)	1.57	0.56	2.13	11.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
58	5290	-15.13	0.36	-14.77	11.00	Pass
106	5530	-10.38	0.36	-10.02	11.00	Pass
122	5610	-2.97	0.36	-2.61	11.00	Pass
138	5690 (For U-NII-2C)	-1.17	0.36	-0.81	11.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.



For U-NII-3 band:

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor		Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
144	5720 (For U-NII-3)	-3.23	-1.01	0.24	-0.77	30.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor		Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
144	5720 (For U-NII-3)	-3.58	-1.36	0.26	-1.10	30.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD w/o Duty Factor		Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
142	5710 (For U-NII-3)	-8.03	-5.81	0.56	-5.25	30.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

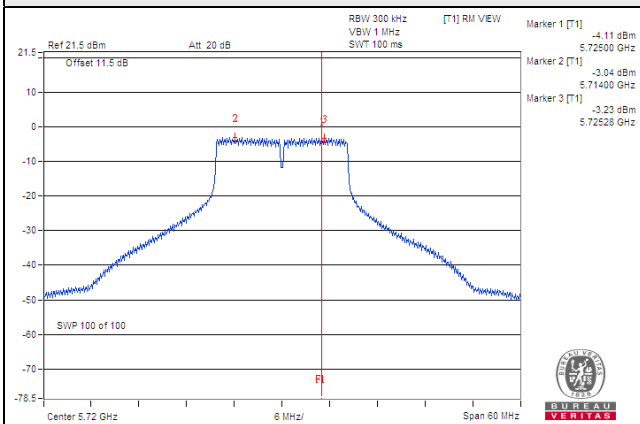
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD w/o Duty Factor		Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
138	5690 (For U-NII-3)	-12.11	-9.89	0.36	-9.53	30.00	Pass

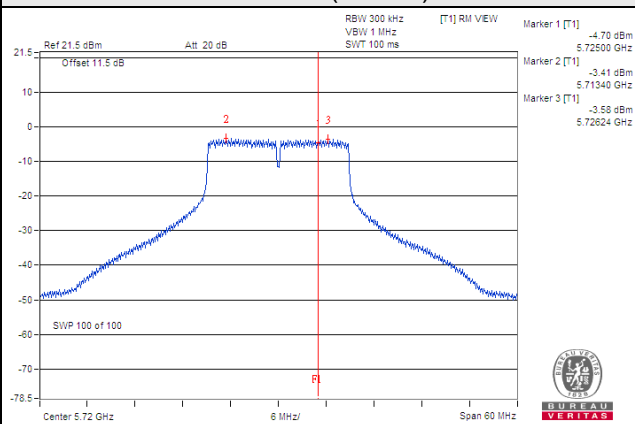
Note: Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

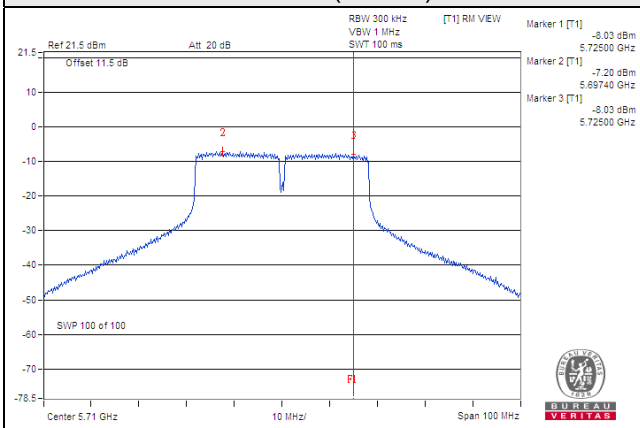
802.11a



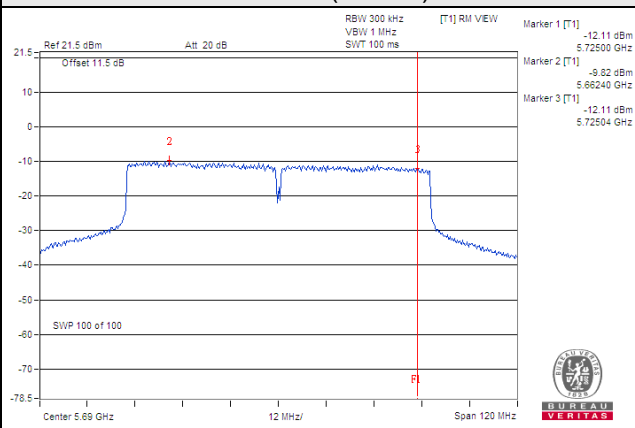
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)

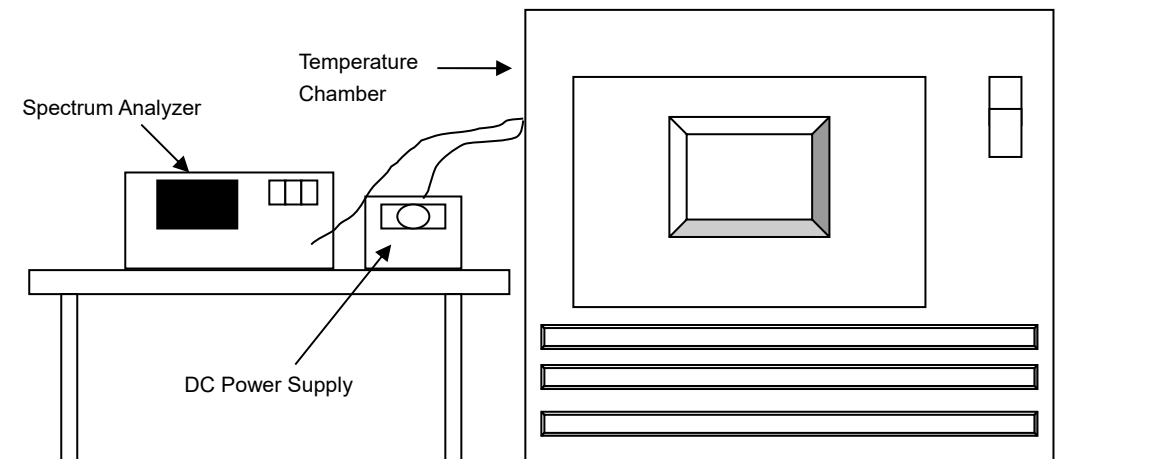


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 16, 2020	Sep. 15, 2021
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2020	May 31, 2021
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2020	Jun. 22, 2021
DC Power Supply TOPWARD	6306A	727263	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

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- Repeat step d with every 10 degrees reduction until the lowest temperature achieved.
- 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

5G traffic radio (Radio 2)

Frequency Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
55	54.0	5259.9785	Pass	5259.9772	Pass	5259.9813	Pass	5259.9772	Pass
50	54.0	5260.0075	Pass	5260.0051	Pass	5260.0056	Pass	5260.0079	Pass
40	54.0	5259.9917	Pass	5259.9924	Pass	5259.9954	Pass	5259.9932	Pass
30	54.0	5259.9797	Pass	5259.976	Pass	5259.9787	Pass	5259.9775	Pass
20	54.0	5260.0239	Pass	5260.0196	Pass	5260.0199	Pass	5260.0238	Pass
10	54.0	5260.0148	Pass	5260.0119	Pass	5260.0161	Pass	5260.0117	Pass
0	54.0	5259.9812	Pass	5259.9802	Pass	5259.9799	Pass	5259.9809	Pass
-10	54.0	5260.0024	Pass	5260.0042	Pass	5260.0042	Pass	5260.0057	Pass
-20	54.0	5260.0182	Pass	5260.0197	Pass	5260.018	Pass	5260.0179	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vdc)	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	62.1	5260.0231	Pass	5260.0199	Pass	5260.0201	Pass	5260.0245	Pass
	54.0	5260.0239	Pass	5260.0196	Pass	5260.0199	Pass	5260.0238	Pass
	45.9	5260.0245	Pass	5260.0188	Pass	5260.02	Pass	5260.0239	Pass

Scanning radio (Radio 3)

Frequency Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
55	54.0	5259.9959	Pass	5259.9946	Pass	5259.9951	Pass	5259.9969	Pass
50	54.0	5260.0111	Pass	5260.006	Pass	5260.0097	Pass	5260.0068	Pass
40	54.0	5259.9914	Pass	5259.9902	Pass	5259.9925	Pass	5259.99	Pass
30	54.0	5260.0121	Pass	5260.015	Pass	5260.0166	Pass	5260.0148	Pass
20	54.0	5260.0038	Pass	5260.0016	Pass	5260.0025	Pass	5259.9998	Pass
10	54.0	5260.0033	Pass	5260.0029	Pass	5260.0051	Pass	5260.0058	Pass
0	54.0	5260.006	Pass	5260.0066	Pass	5260.0058	Pass	5260.0061	Pass
-10	54.0	5259.9786	Pass	5259.9784	Pass	5259.9772	Pass	5259.9785	Pass
-20	54.0	5260.0242	Pass	5260.0238	Pass	5260.0243	Pass	5260.0233	Pass

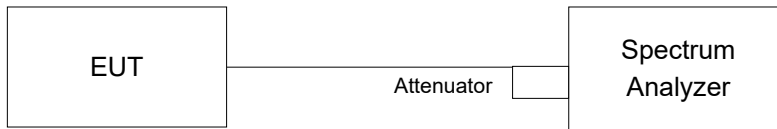
Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	62.1	5260.0041	Pass	5260.0008	Pass	5260.0019	Pass	5259.9995	Pass
	54.0	5260.0038	Pass	5260.0016	Pass	5260.0025	Pass	5259.9998	Pass
	45.9	5260.0028	Pass	5260.0025	Pass	5260.0022	Pass	5259.9988	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

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

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

5G traffic radio (Radio 2)

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	2.90	2.90	0.5	Pass

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

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	3.81	4.11	0.5	Pass

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

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 (For U-NII-3)	4.01	3.62	0.5	Pass

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

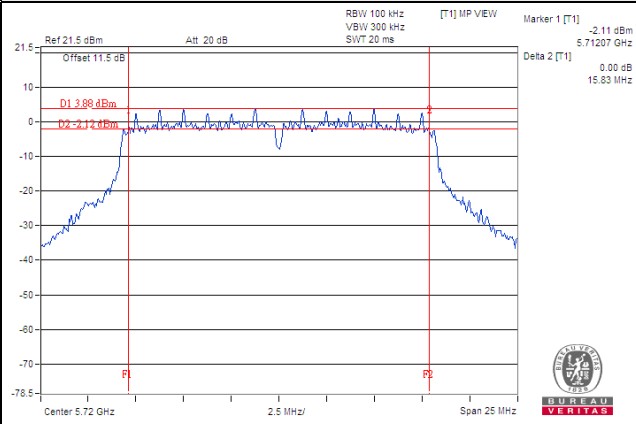
802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138	5690 (For U-NII-3)	3.52	2.73	0.5	Pass

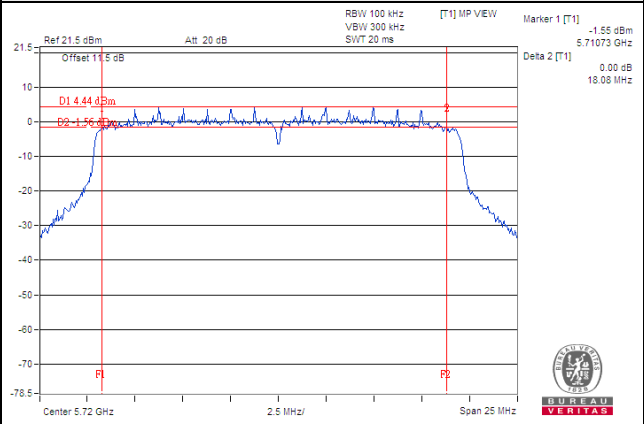
For CH138 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

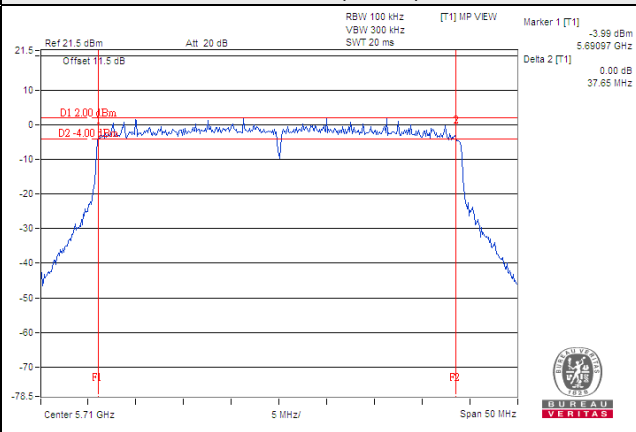
802.11a



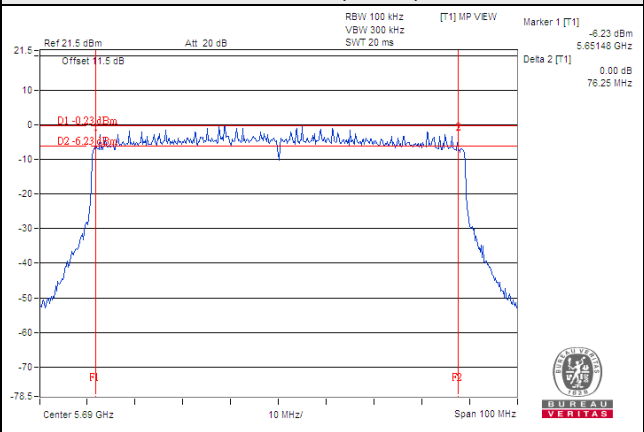
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



Scanning radio (Radio 3)

802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 (For U-NII-3)	3.13	0.50	Pass

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

802.11ac (VHT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 (For U-NII-3)	3.75	0.50	Pass

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

802.11ac (VHT40)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
142	5710 (For U-NII-3)	3.11	0.50	Pass

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

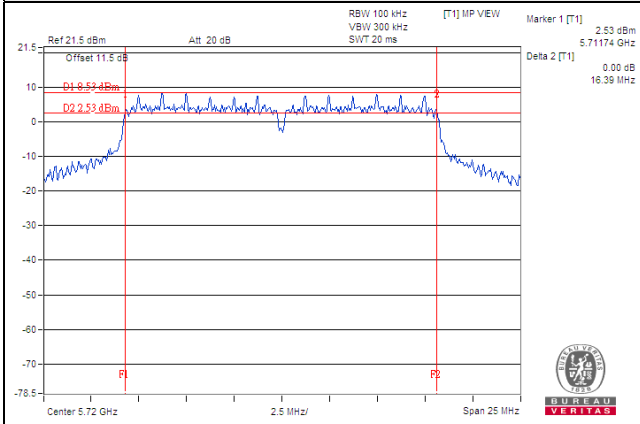
802.11ac (VHT80)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
138	5690 (For U-NII-3)	1.60	0.50	Pass

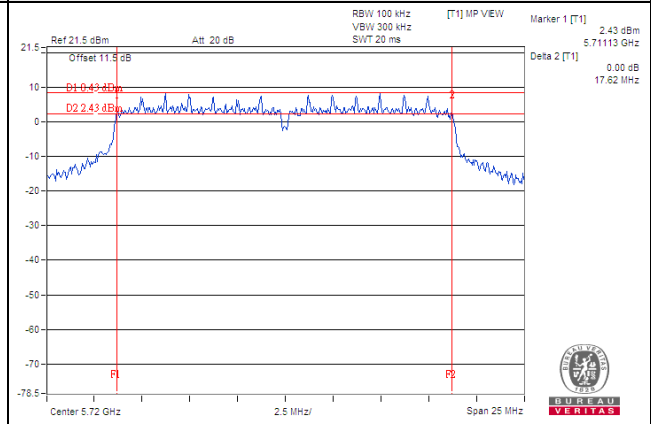
For CH138 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

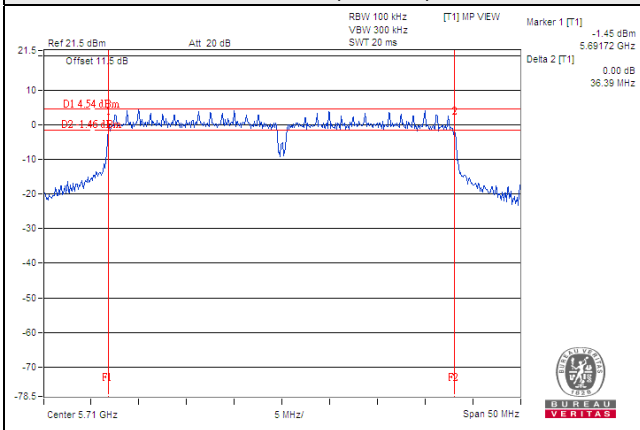
802.11a



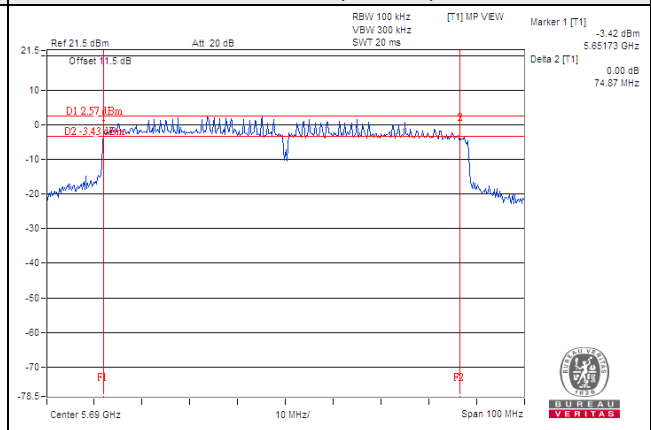
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)

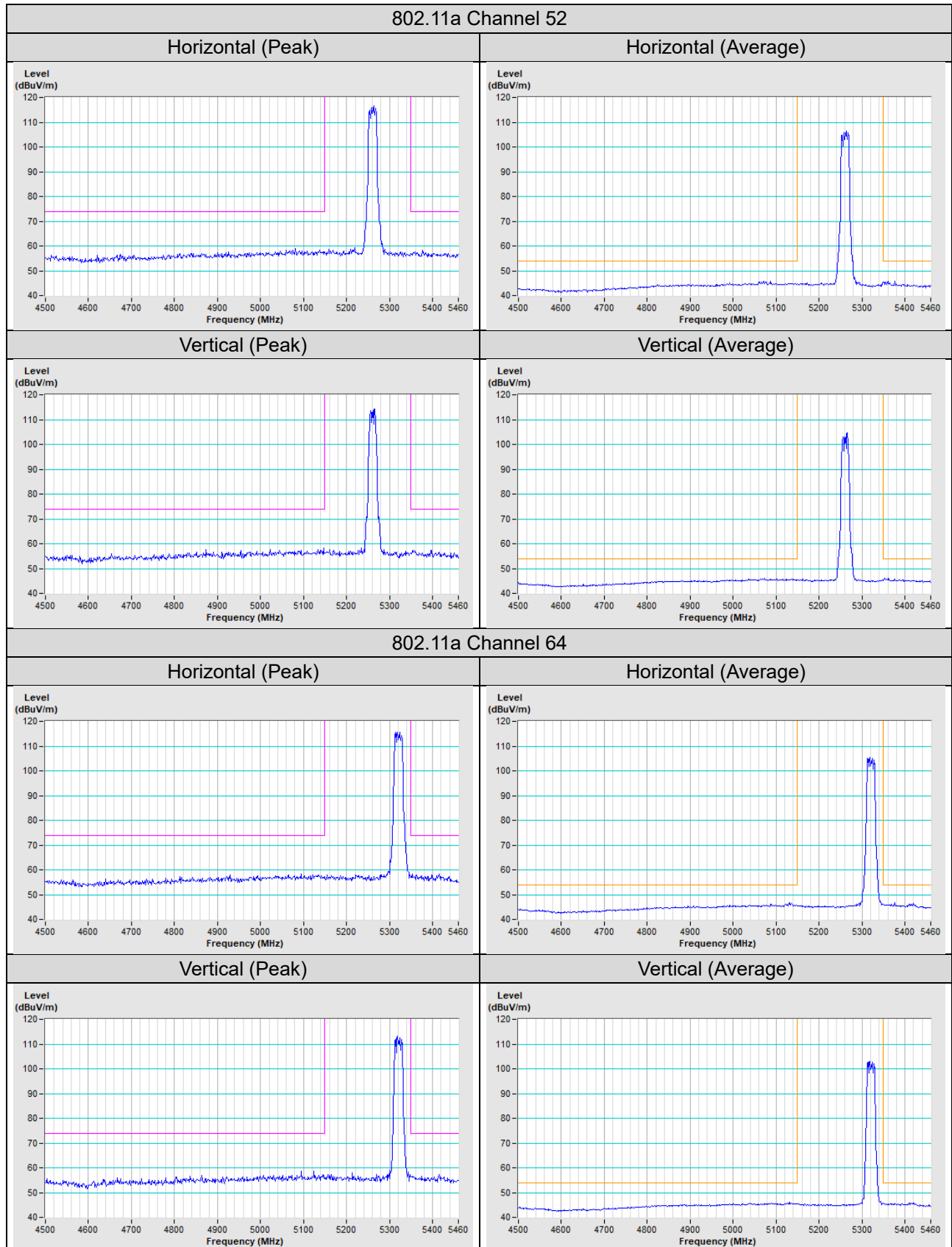


5 Pictures of Test Arrangements

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

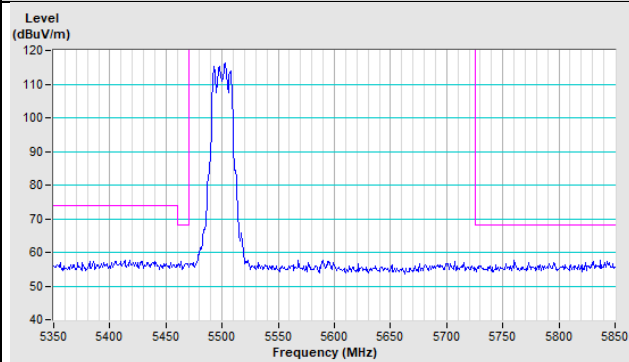
Annex A - Band Edge Measurement

5G traffic radio (Radio 2)

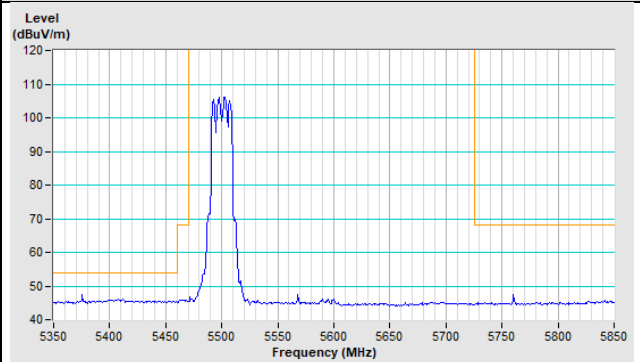


802.11a Channel 100

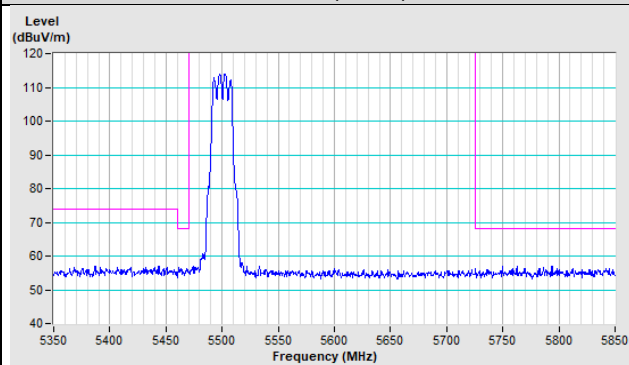
Horizontal (Peak)



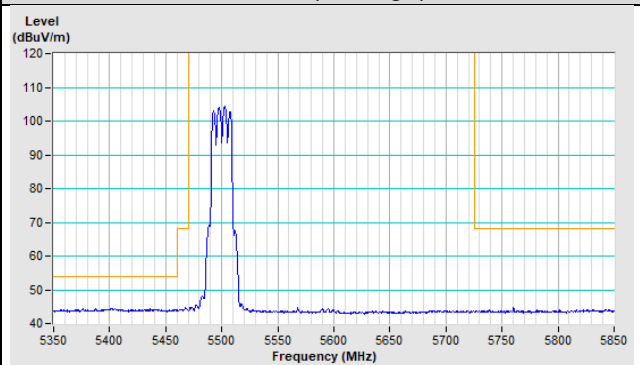
Horizontal (Average)



Vertical (Peak)

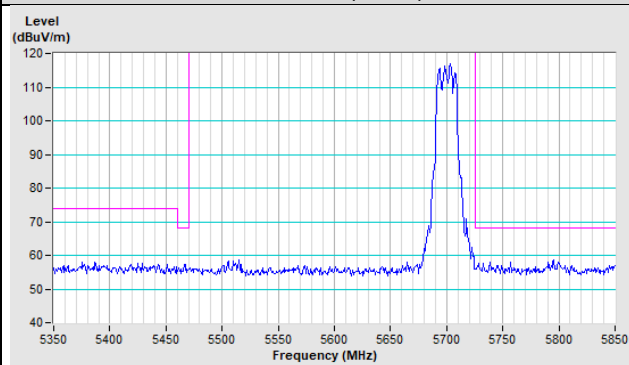


Vertical (Average)

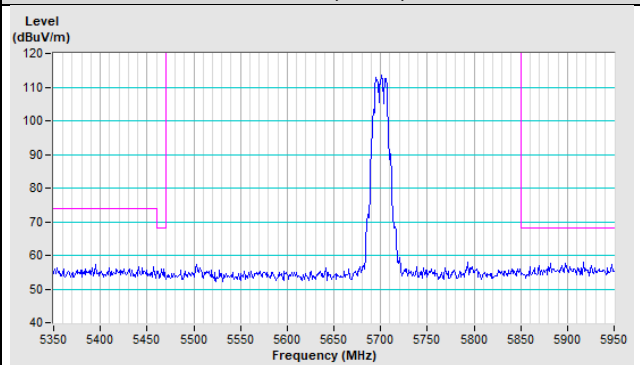


802.11a Channel 140

Horizontal (Peak)

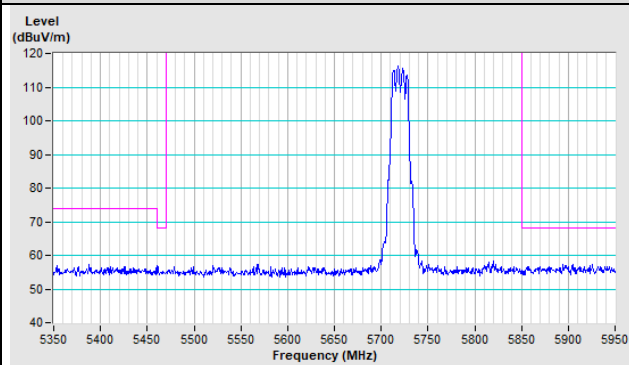


Vertical (Peak)

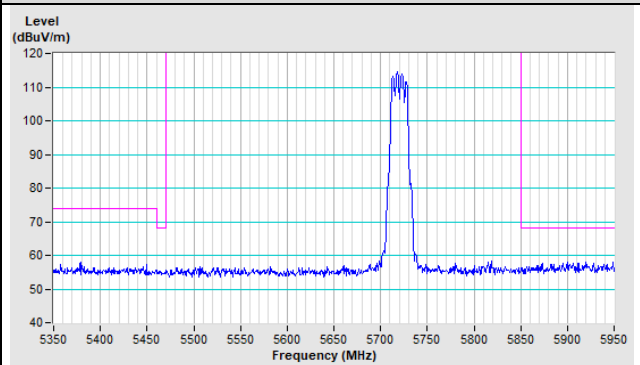


802.11a Channel 144

Horizontal (Peak)

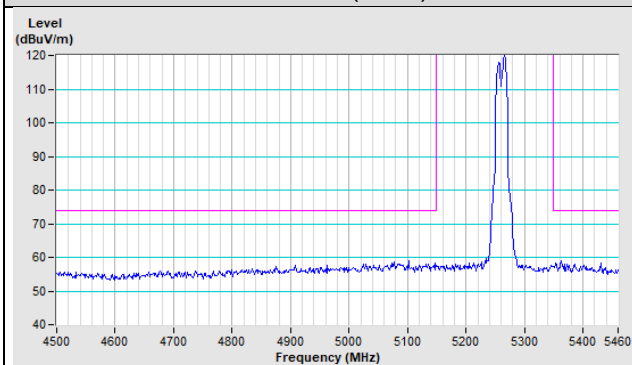


Vertical (Peak)

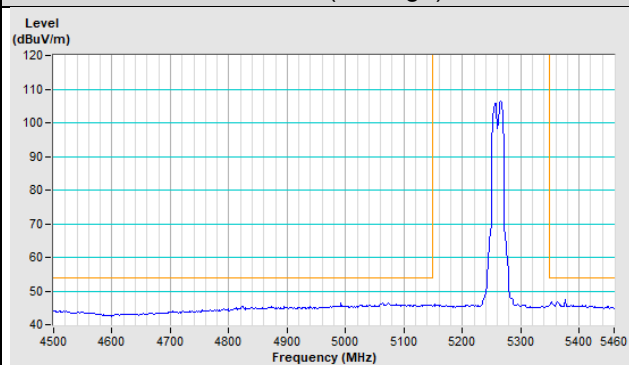


802.11ax (HE20) Channel 52

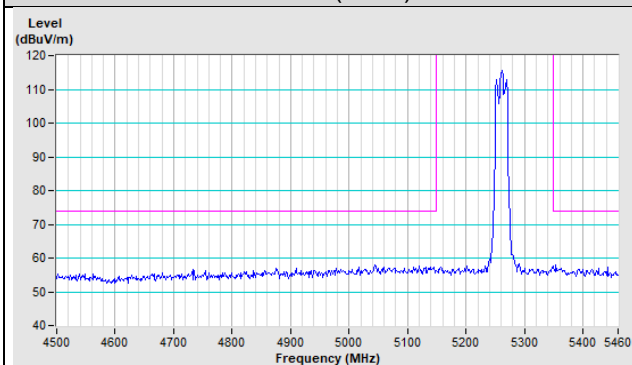
Horizontal (Peak)



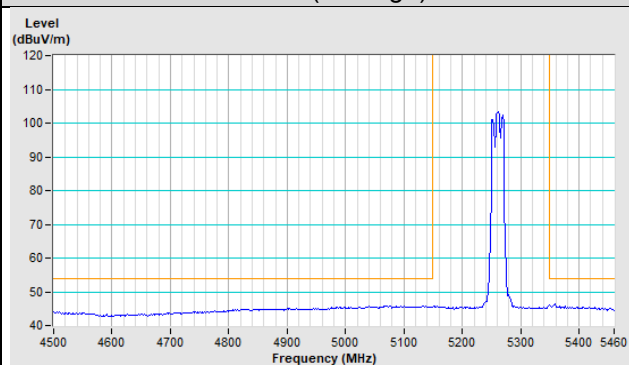
Horizontal (Average)



Vertical (Peak)

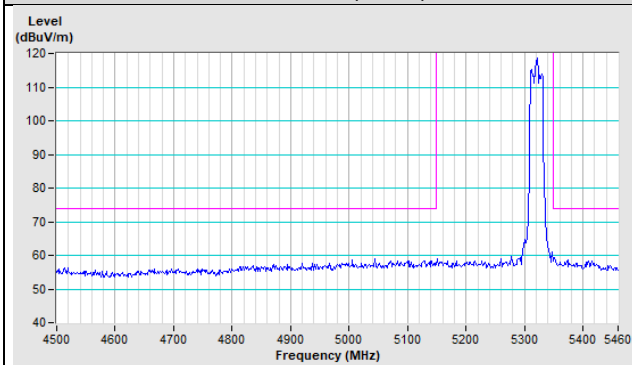


Vertical (Average)

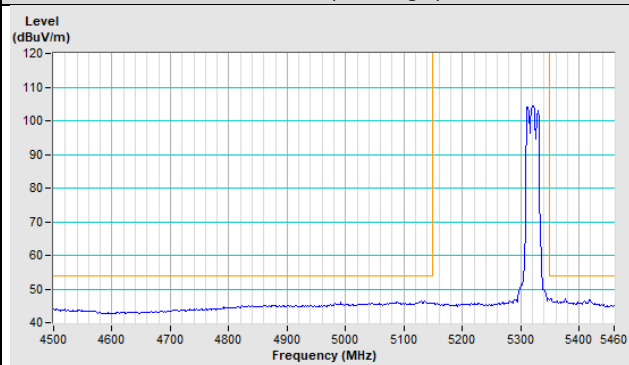


802.11ax (HE20) Channel 64

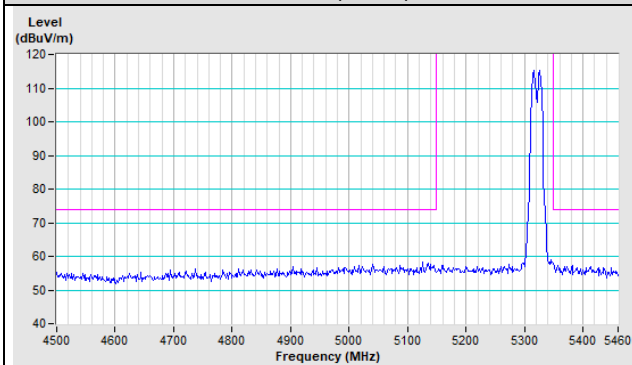
Horizontal (Peak)



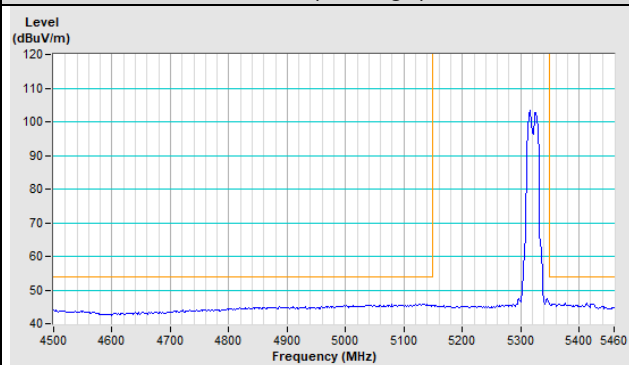
Horizontal (Average)



Vertical (Peak)

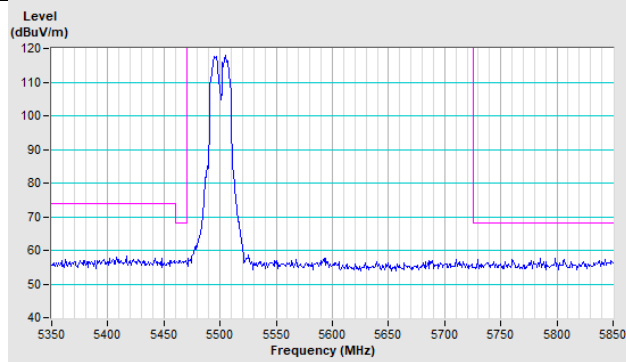


Vertical (Average)

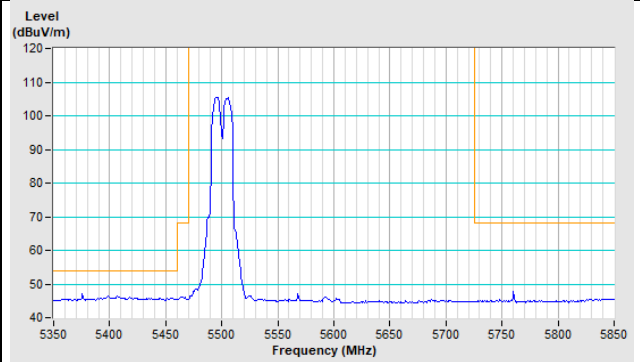


802.11ax (HE20) Channel 100

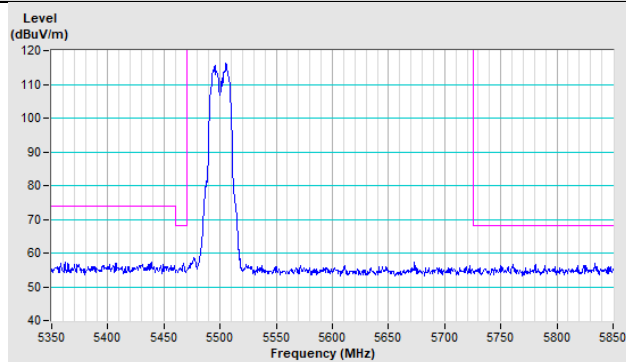
Horizontal (Peak)



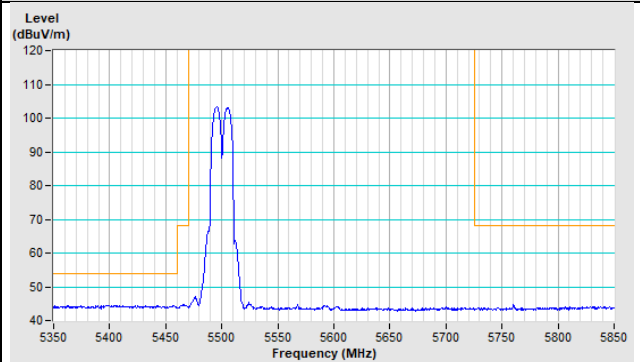
Horizontal (Average)



Vertical (Peak)

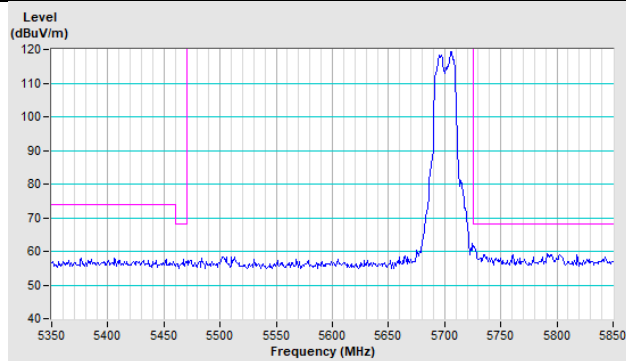


Vertical (Average)

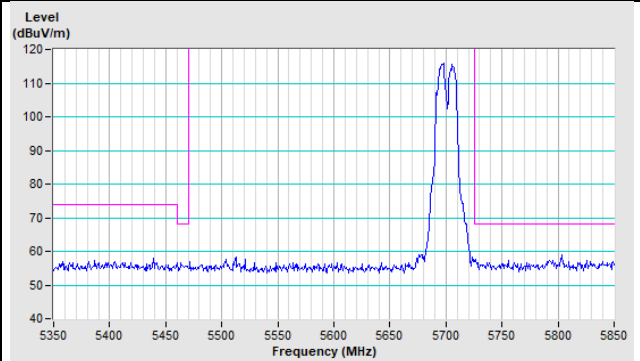


802.11ax (HE20) Channel 140

Horizontal (Peak)

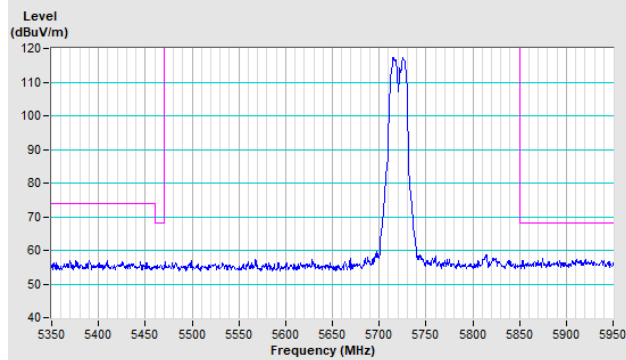


Vertical (Peak)

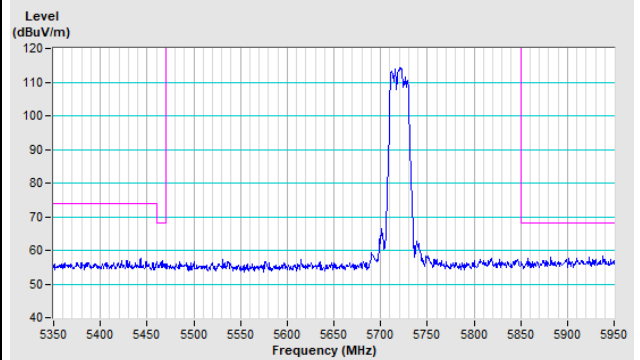


802.11ax (HE20) Channel 144

Horizontal (Peak)

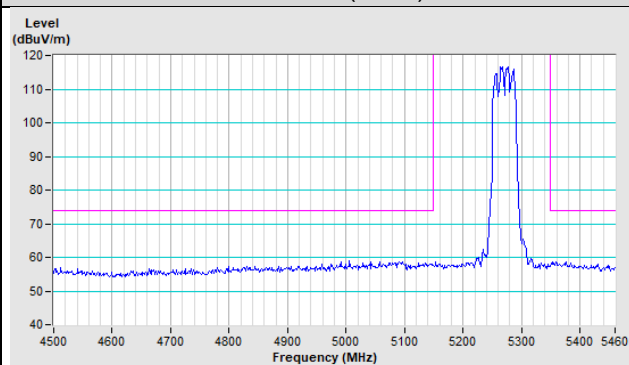


Vertical (Peak)

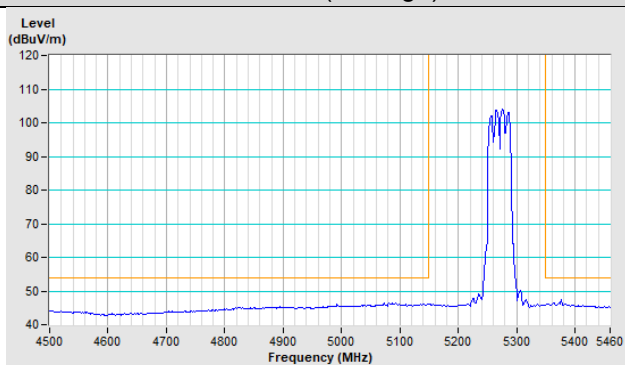


802.11ax (HE40) Channel 54

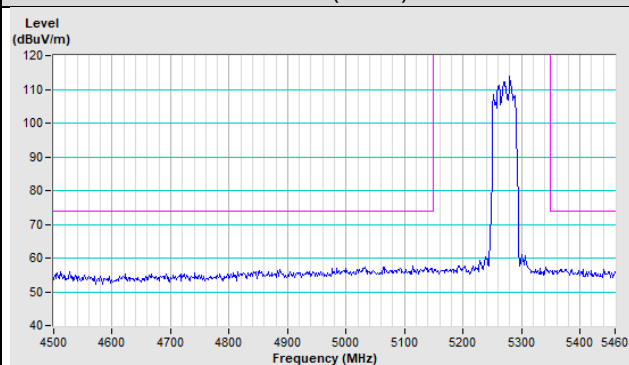
Horizontal (Peak)



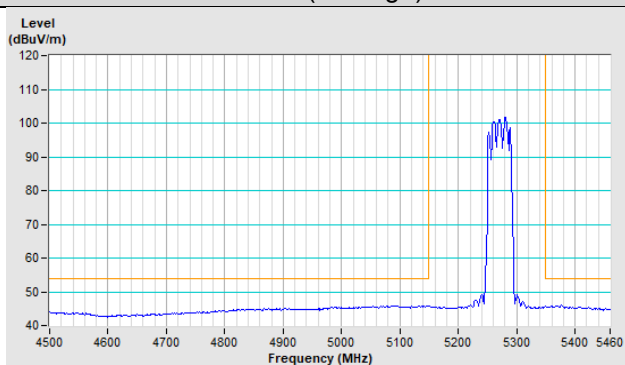
Horizontal (Average)



Vertical (Peak)

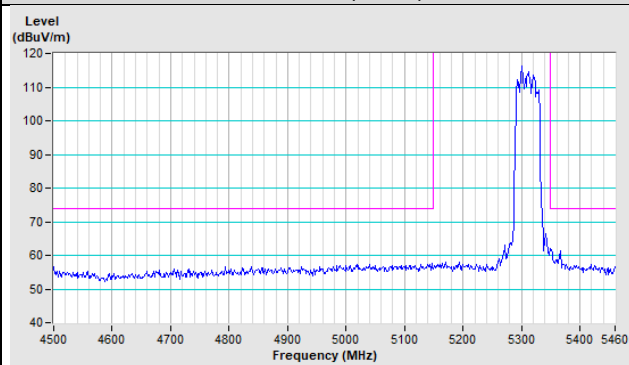


Vertical (Average)

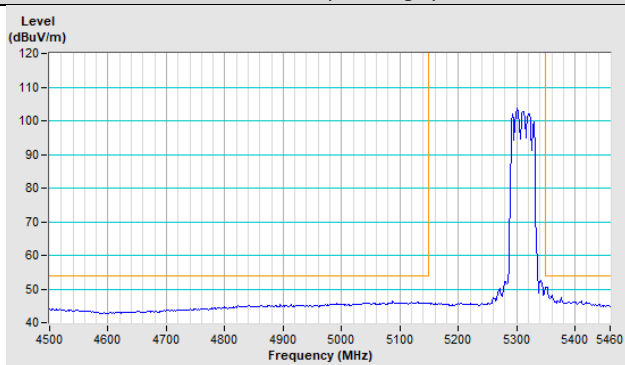


802.11ax (HE40) Channel 62

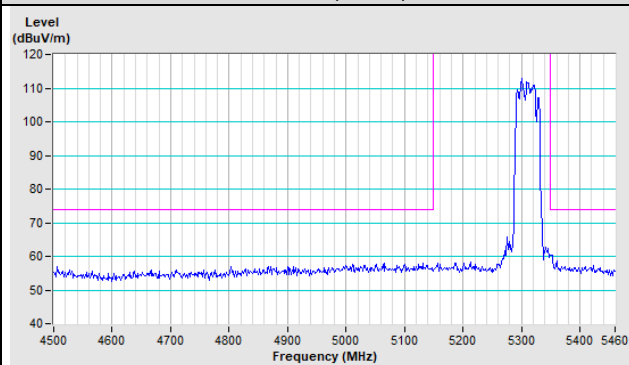
Horizontal (Peak)



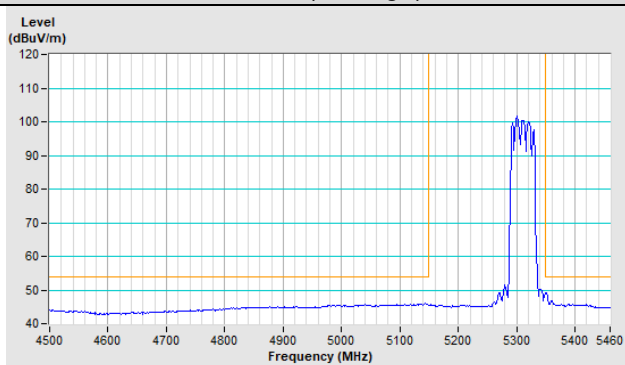
Horizontal (Average)



Vertical (Peak)

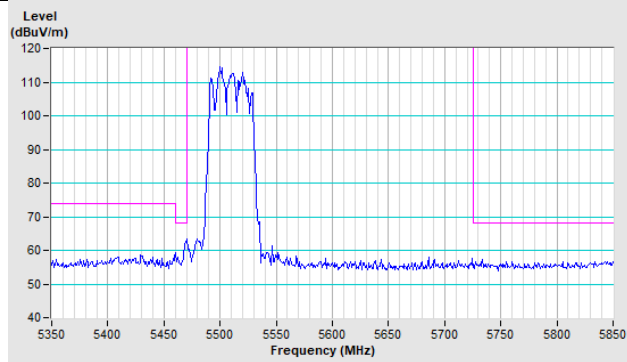


Vertical (Average)

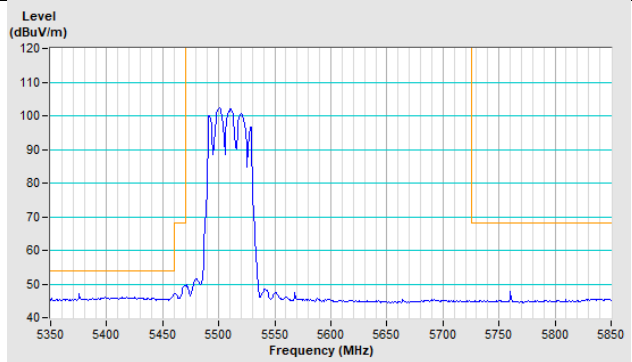


802.11ax (HE40) Channel 102

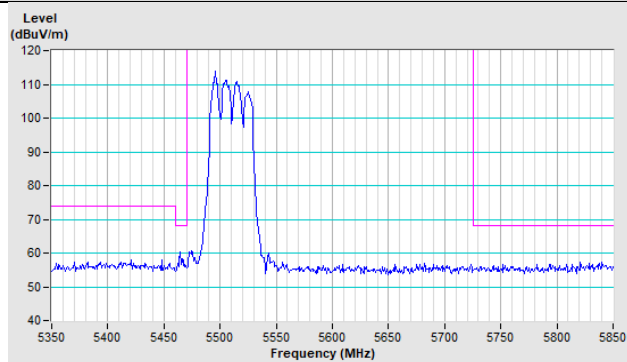
Horizontal (Peak)



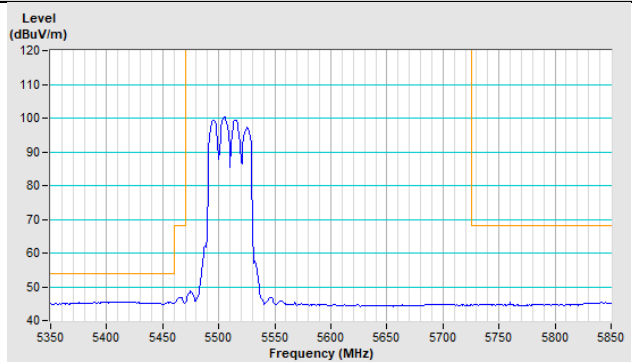
Horizontal (Average)



Vertical (Peak)

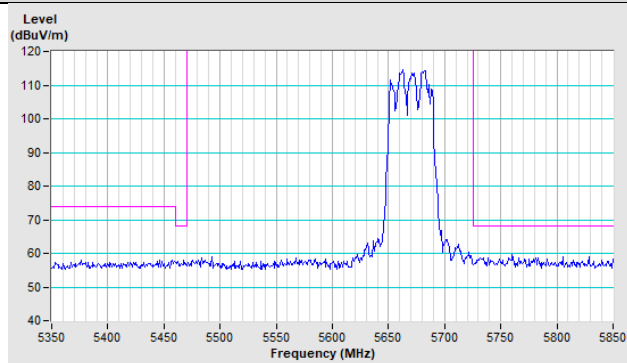


Vertical (Average)

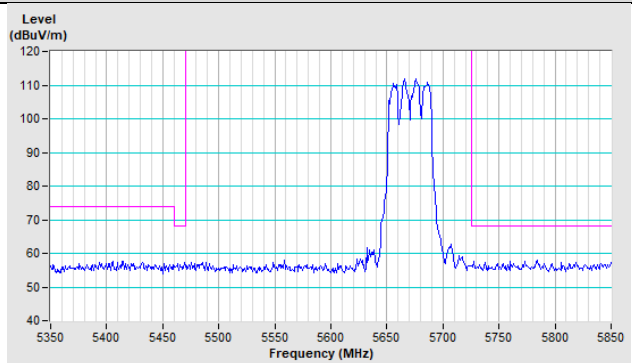


802.11ax (HE40) Channel 134

Horizontal (Peak)

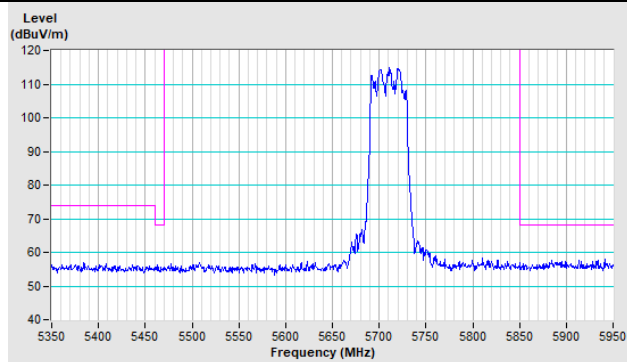


Vertical (Peak)

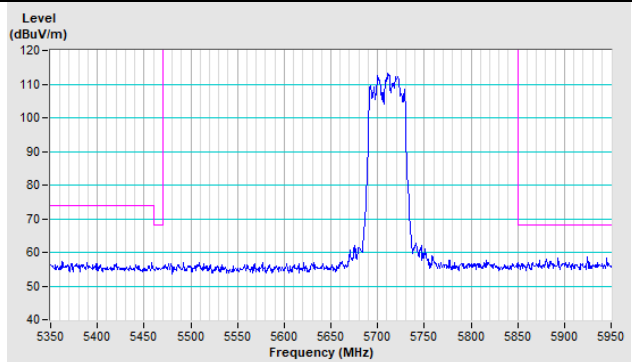


802.11ax (HE40) Channel 142

Horizontal (Peak)

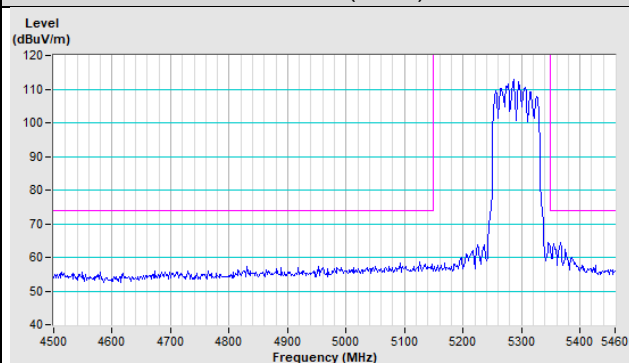


Vertical (Peak)

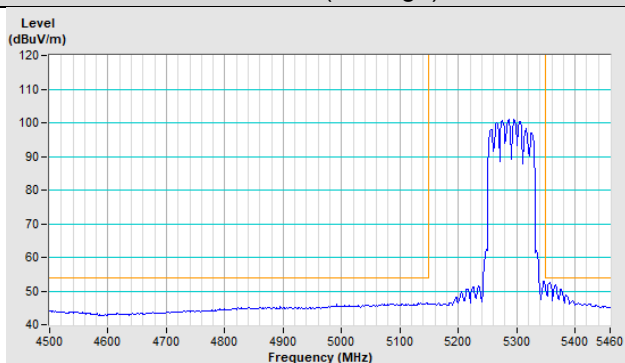


802.11ax (HE80) Channel 58

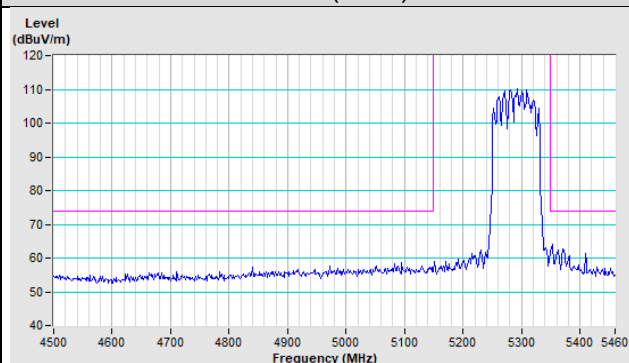
Horizontal (Peak)



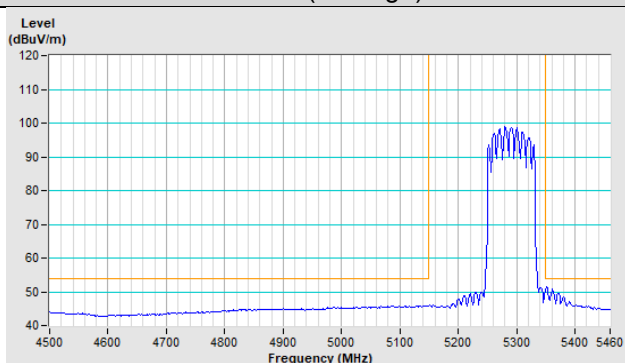
Horizontal (Average)



Vertical (Peak)

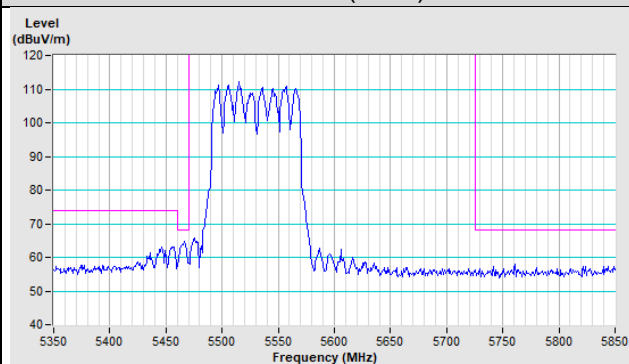


Vertical (Average)

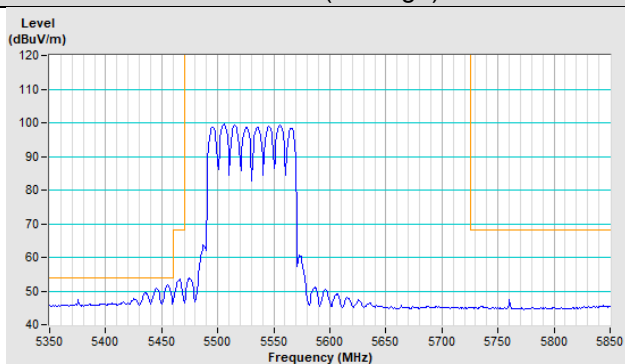


802.11ax (HE80) Channel 106

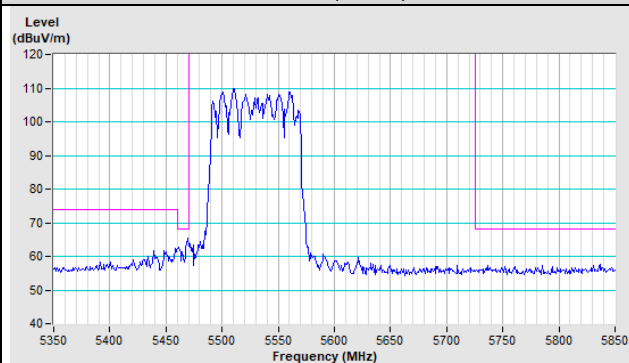
Horizontal (Peak)



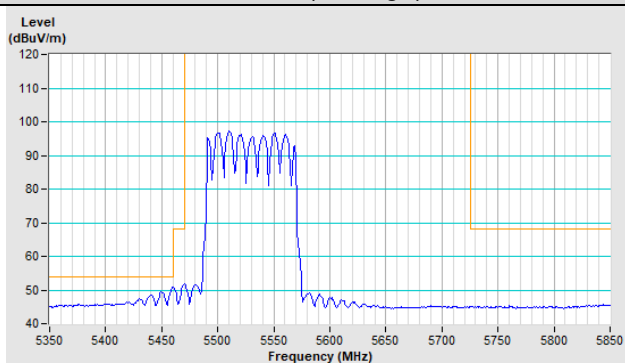
Horizontal (Average)



Vertical (Peak)

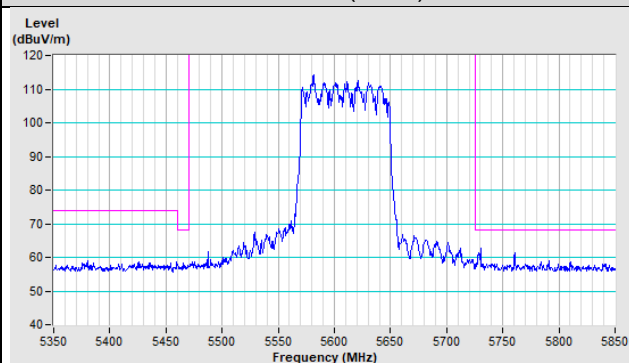


Vertical (Average)

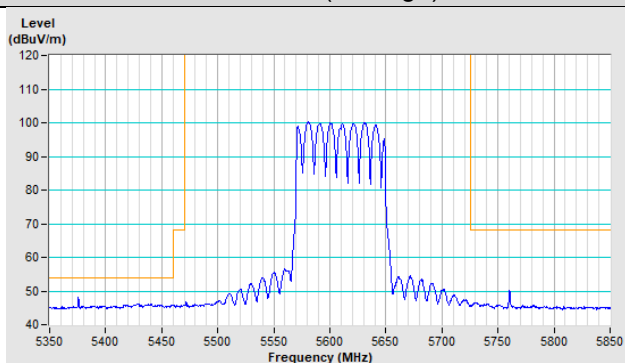


802.11ax (HE80) Channel 122

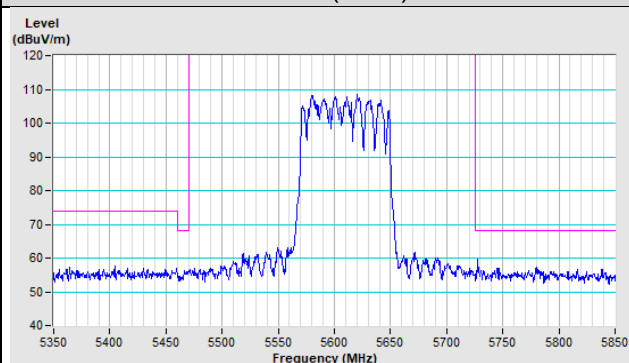
Horizontal (Peak)



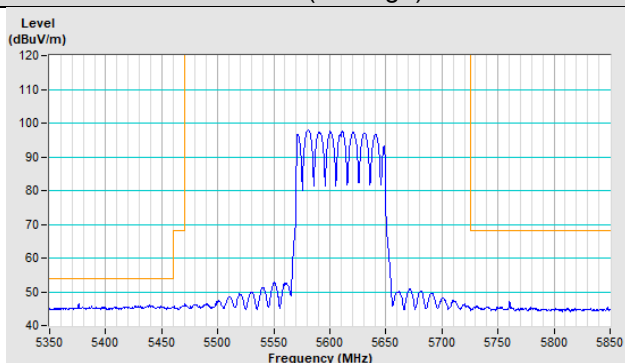
Horizontal (Average)



Vertical (Peak)

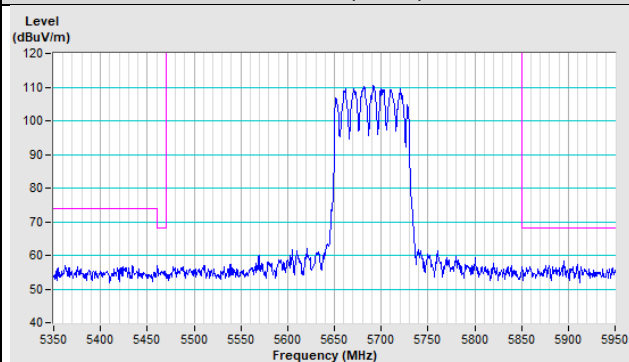


Vertical (Average)

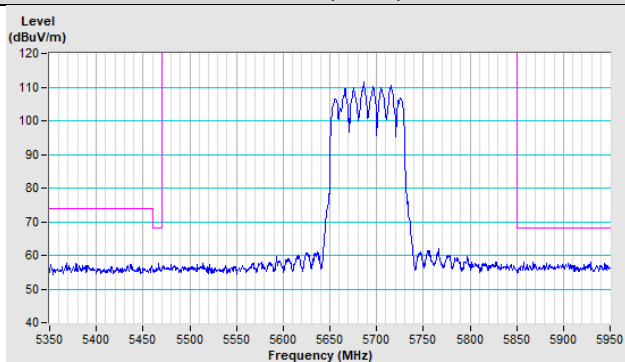


802.11ax (HE80) Channel 138

Horizontal (Peak)



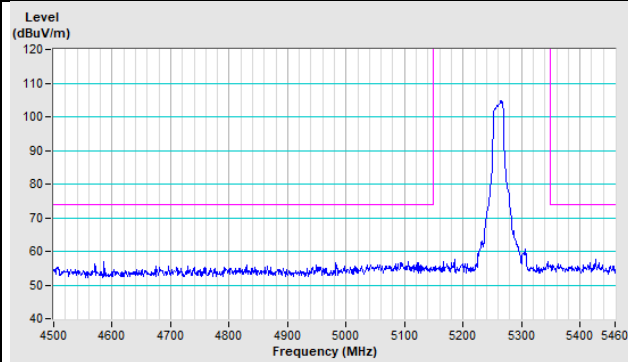
Vertical (Peak)



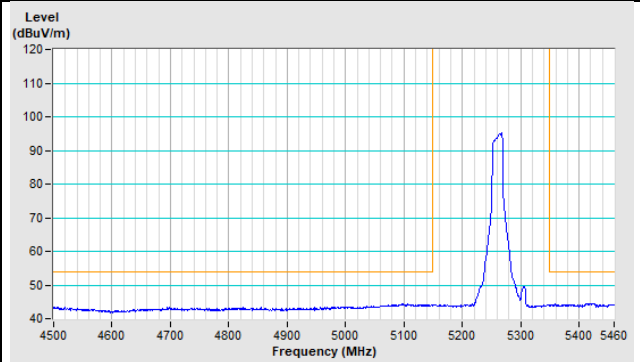
Scanning radio (Radio 3)

802.11a Channel 52

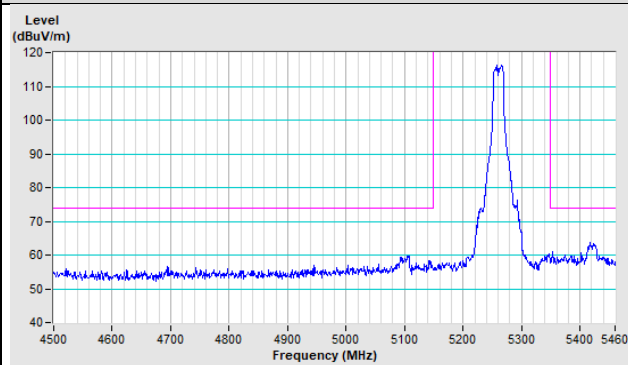
Horizontal (Peak)



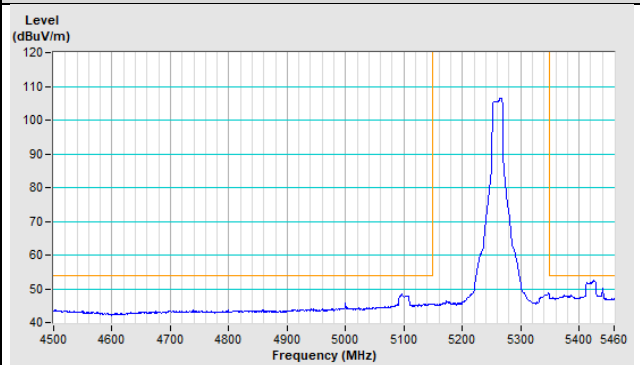
Horizontal (Average)



Vertical (Peak)

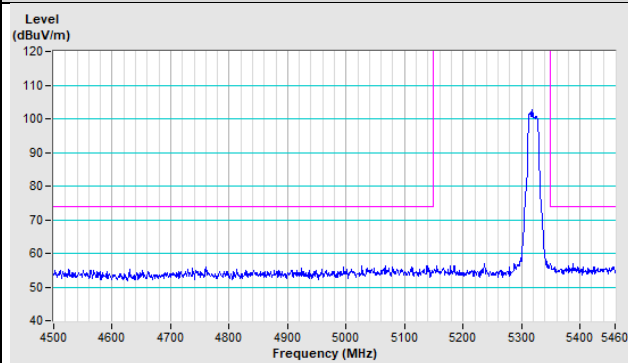


Vertical (Average)

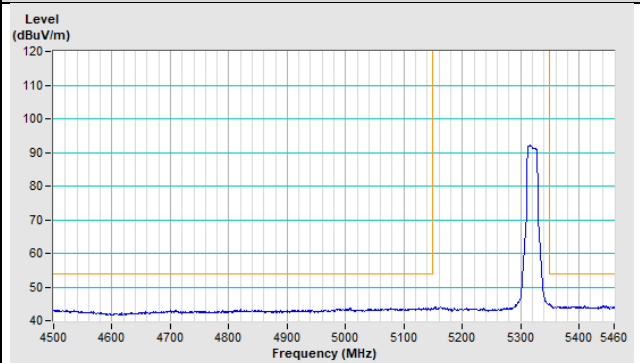


802.11a Channel 64

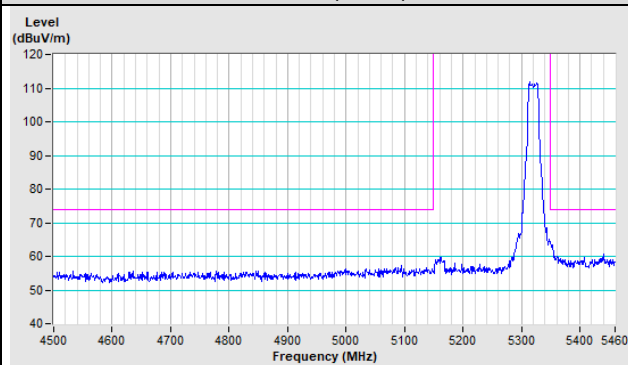
Horizontal (Peak)



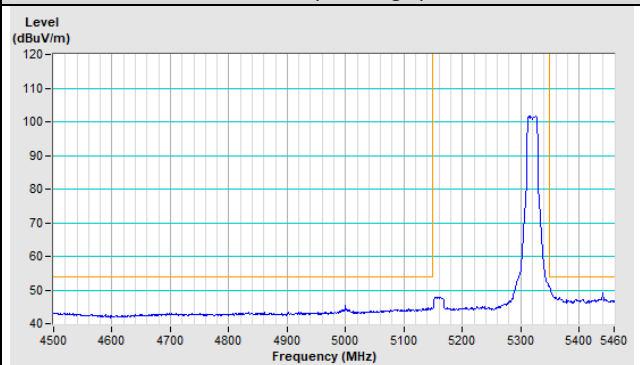
Horizontal (Average)



Vertical (Peak)

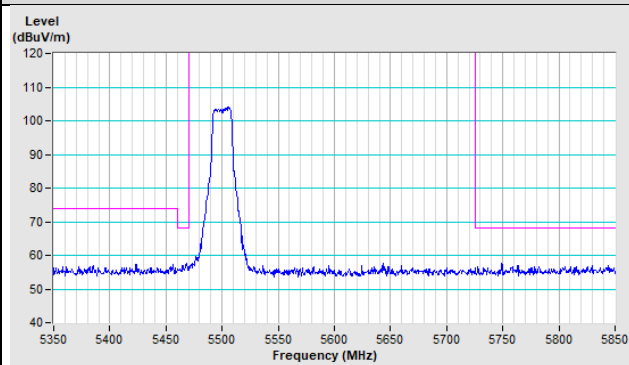


Vertical (Average)

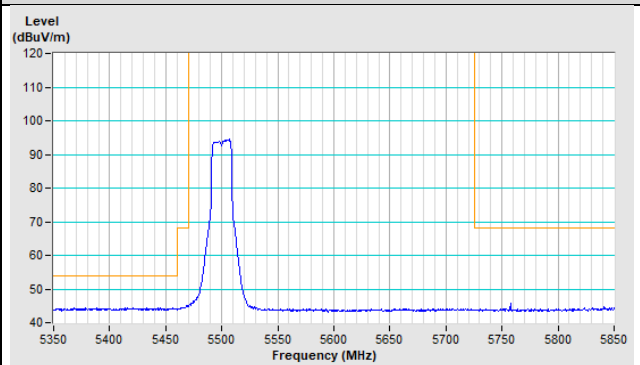


802.11a Channel 100

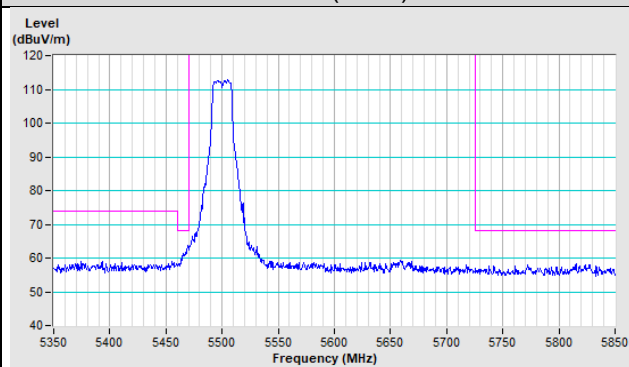
Horizontal (Peak)



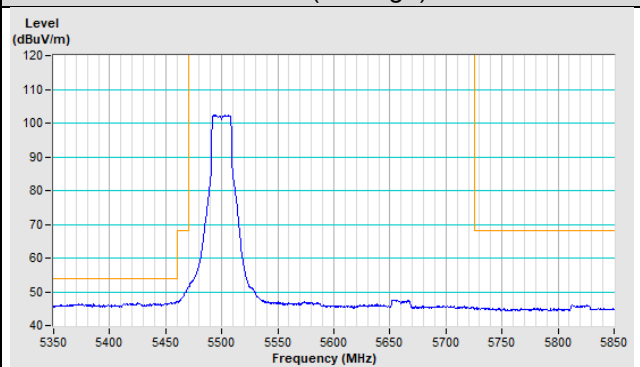
Horizontal (Average)



Vertical (Peak)

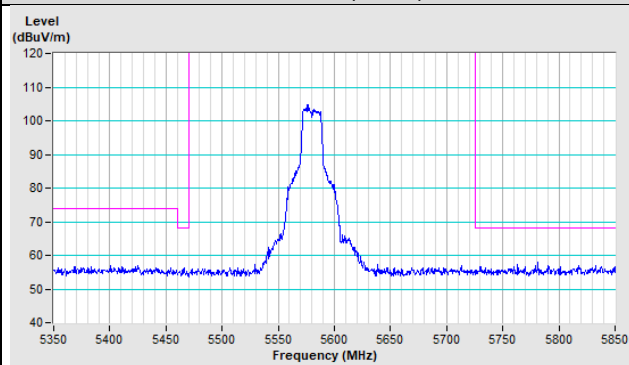


Vertical (Average)

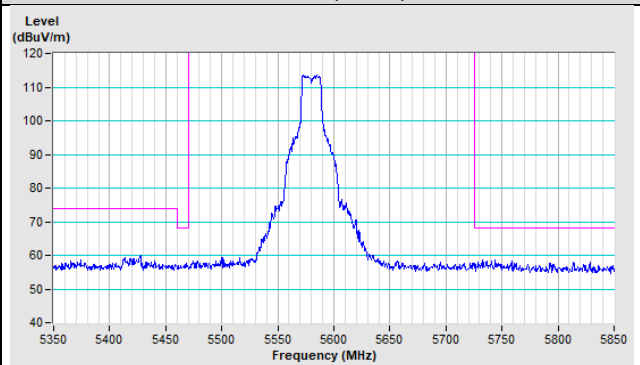


802.11a Channel 116

Horizontal (Peak)

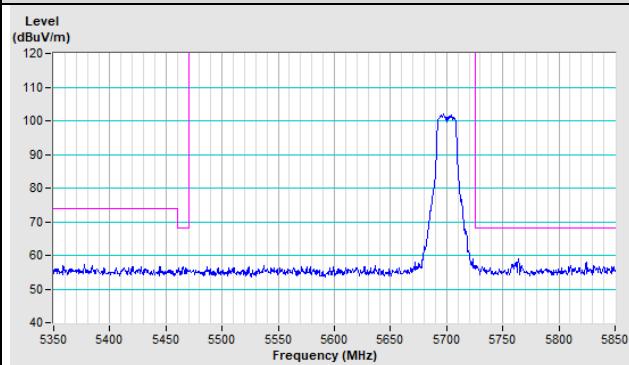


Vertical (Peak)

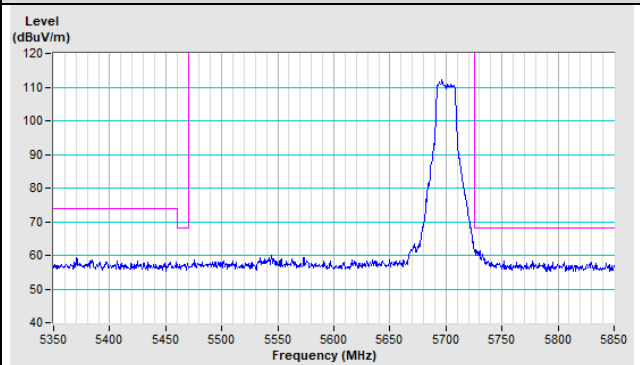


802.11a Channel 140

Horizontal (Peak)

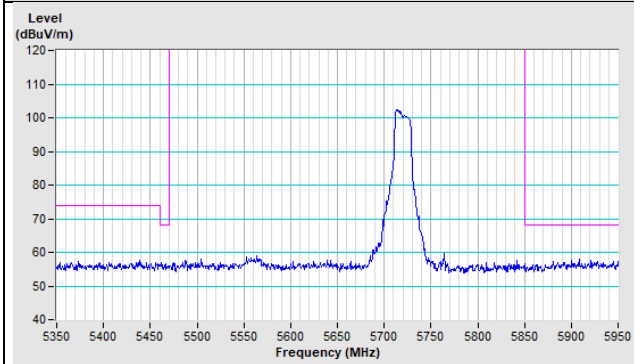


Vertical (Peak)

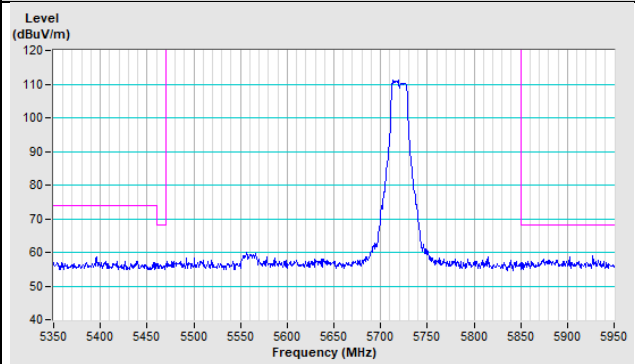


802.11a Channel 144

Horizontal (Peak)

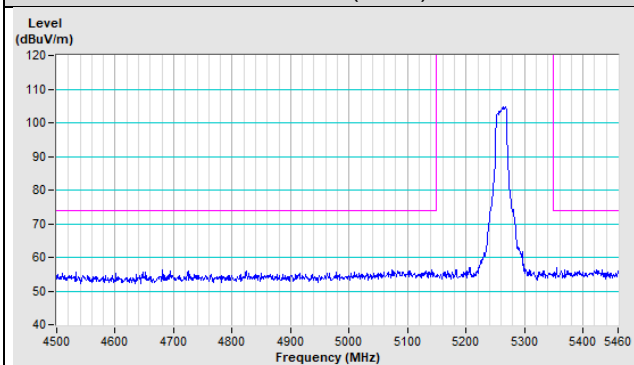


Vertical (Peak)

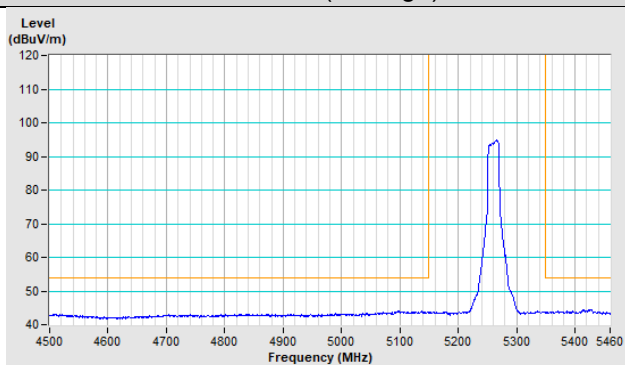


802.11ac (VHT20) Channel 52

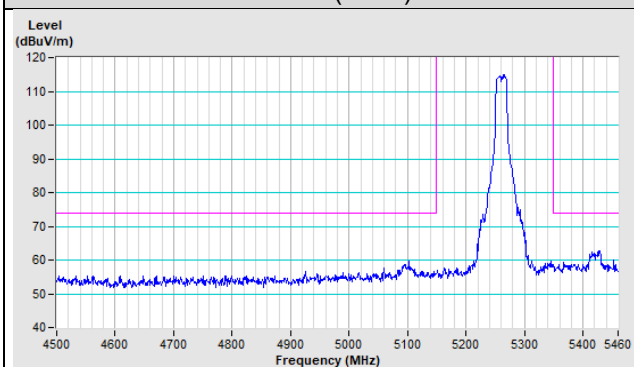
Horizontal (Peak)



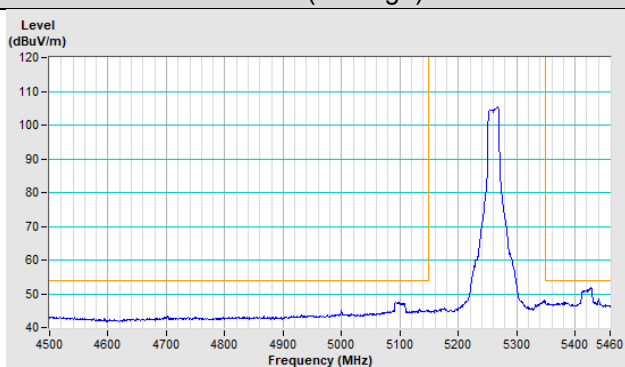
Horizontal (Average)



Vertical (Peak)

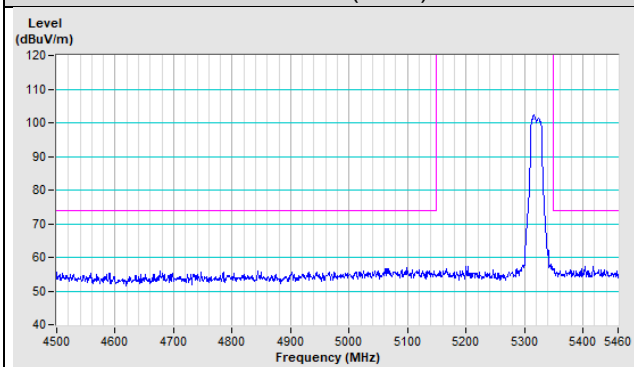


Vertical (Average)

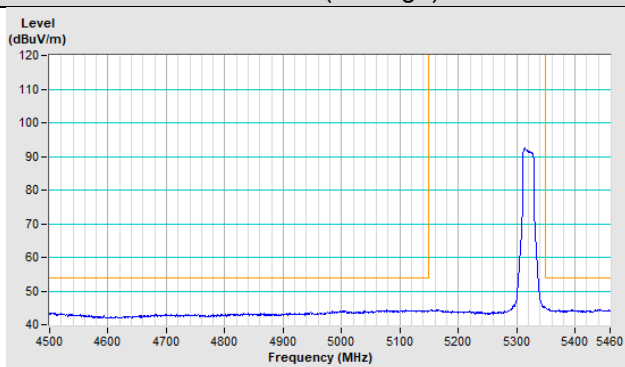


802.11ac (VHT20) Channel 64

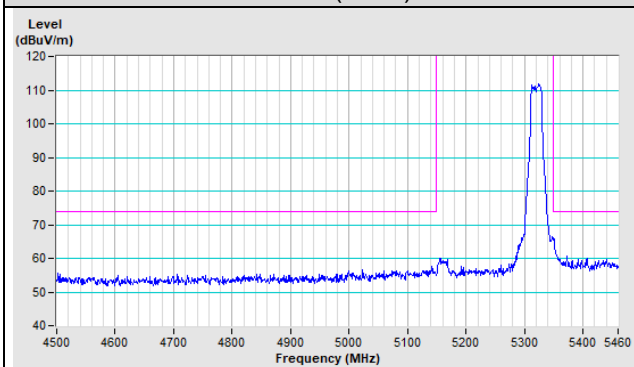
Horizontal (Peak)



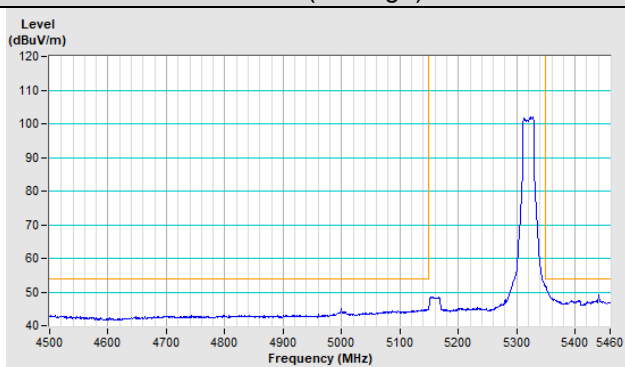
Horizontal (Average)



Vertical (Peak)

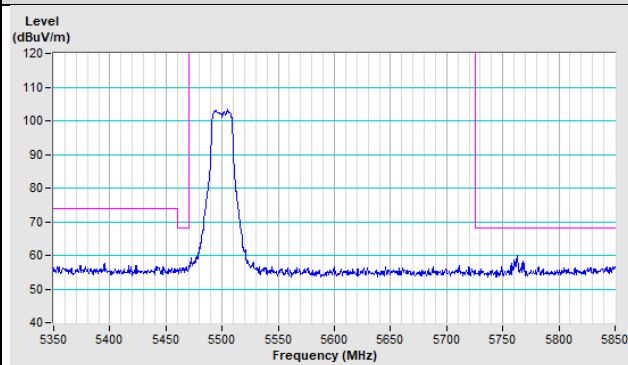


Vertical (Average)

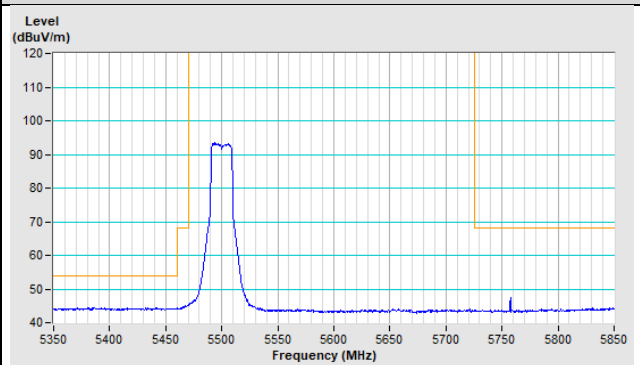


802.11ac (VHT20) Channel 100

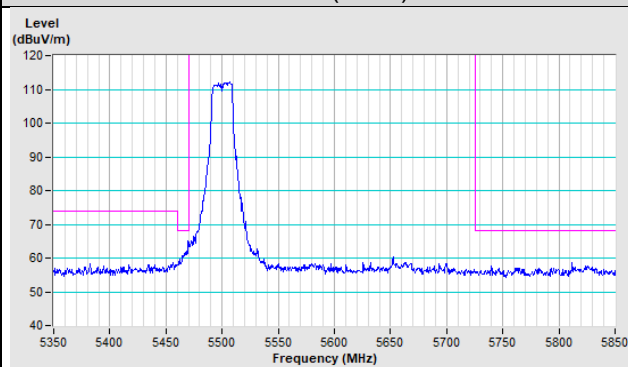
Horizontal (Peak)



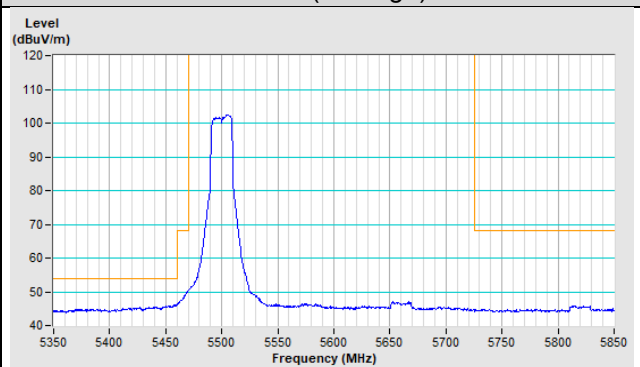
Horizontal (Average)



Vertical (Peak)

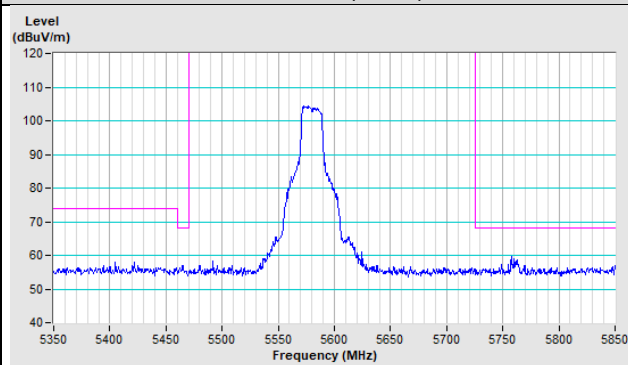


Vertical (Average)

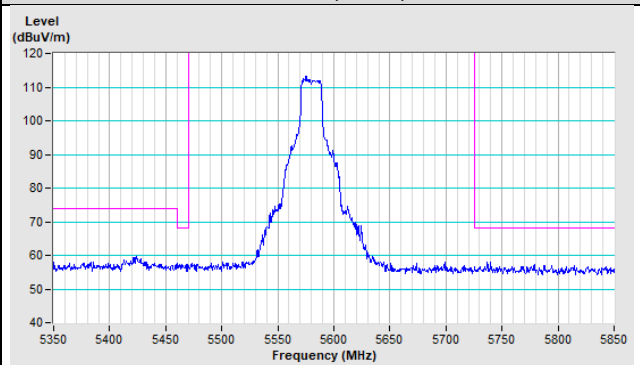


802.11ac (VHT20) Channel 116

Horizontal (Peak)

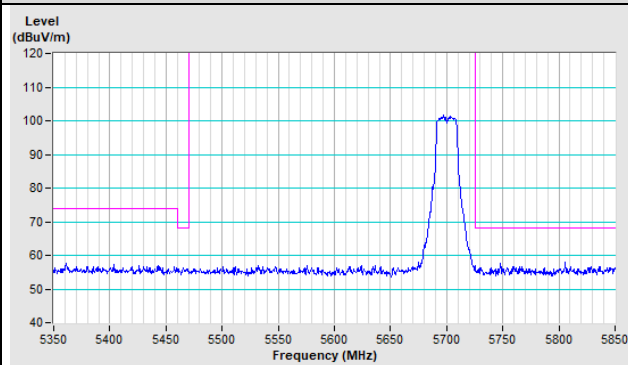


Vertical (Peak)

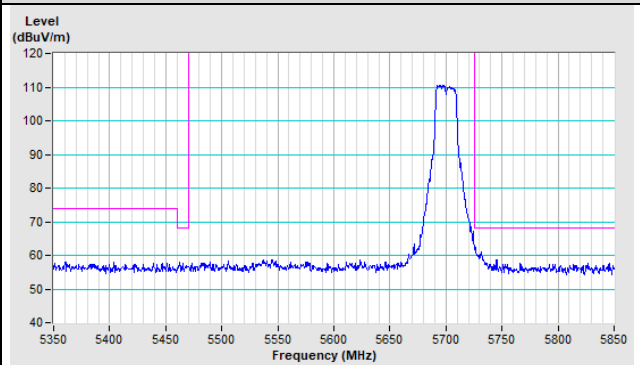


802.11ac (VHT20) Channel 140

Horizontal (Peak)

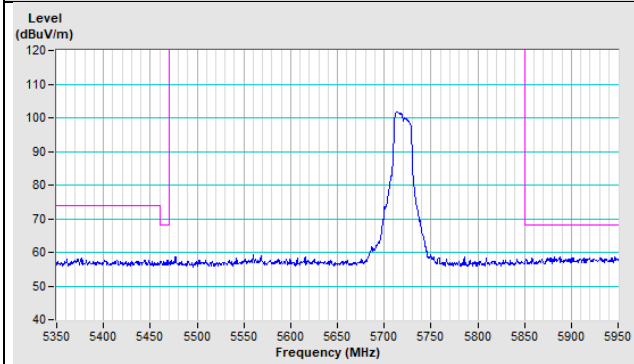


Vertical (Peak)

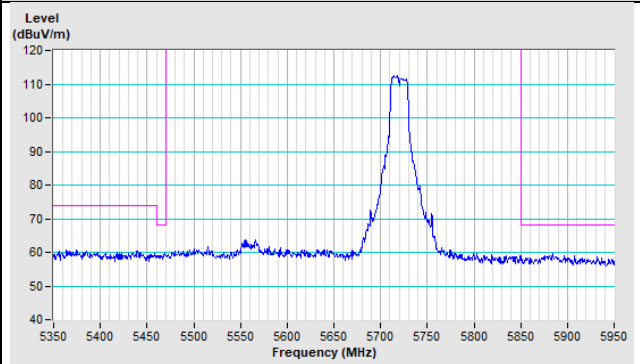


802.11ac (VHT20) Channel 144

Horizontal (Peak)

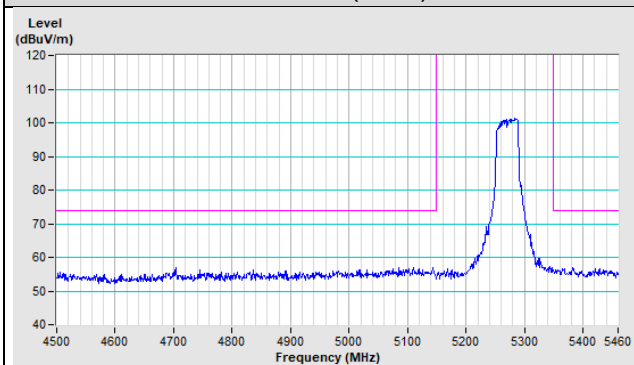


Vertical (Peak)

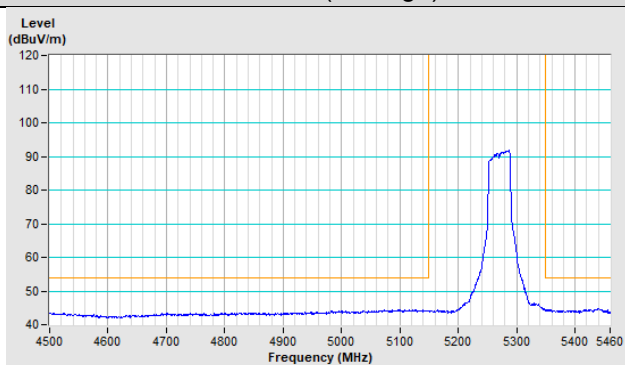


802.11ac (VHT40) Channel 54

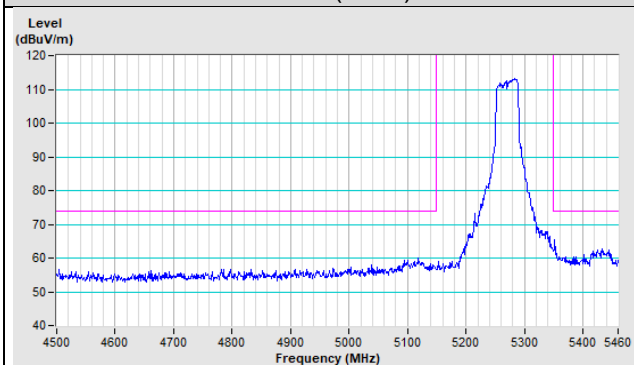
Horizontal (Peak)



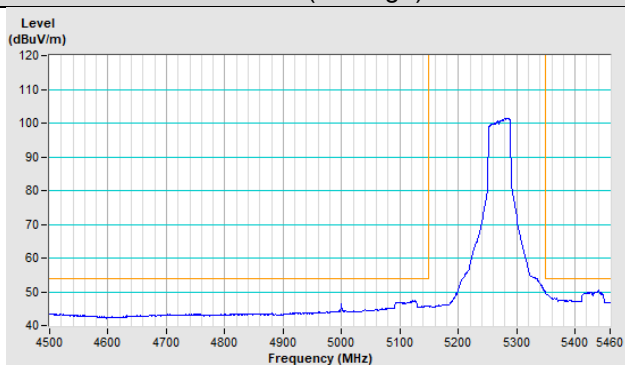
Horizontal (Average)



Vertical (Peak)

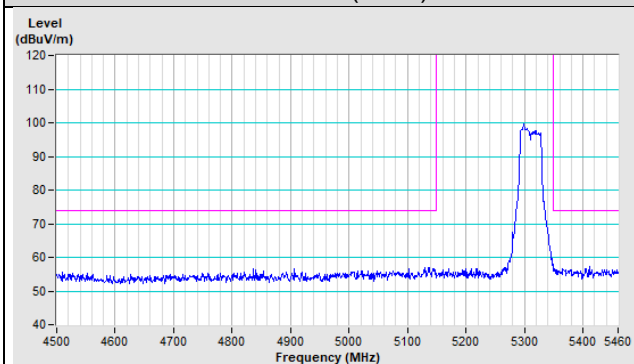


Vertical (Average)

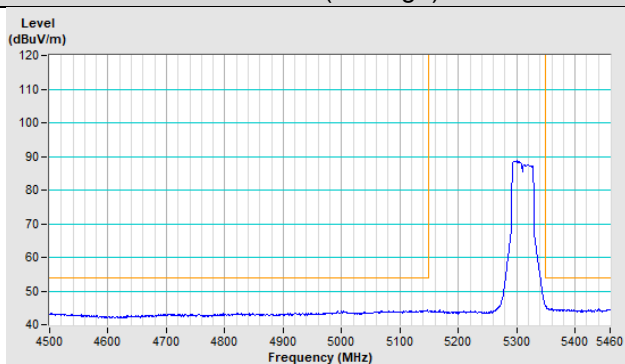


802.11ac (VHT40) Channel 62

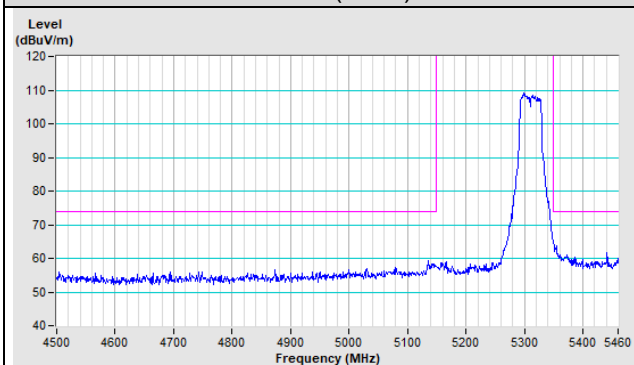
Horizontal (Peak)



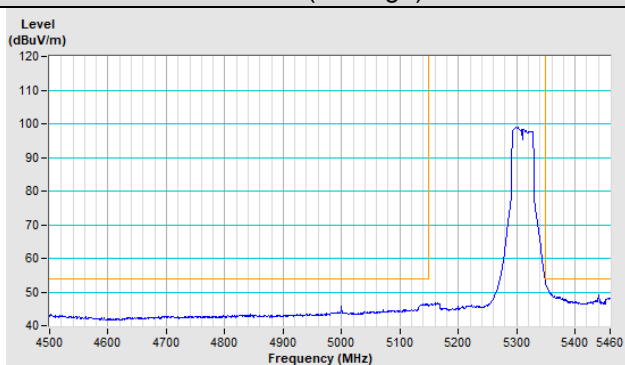
Horizontal (Average)



Vertical (Peak)

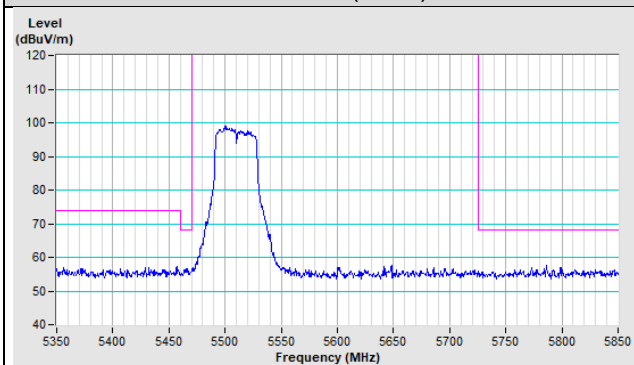


Vertical (Average)

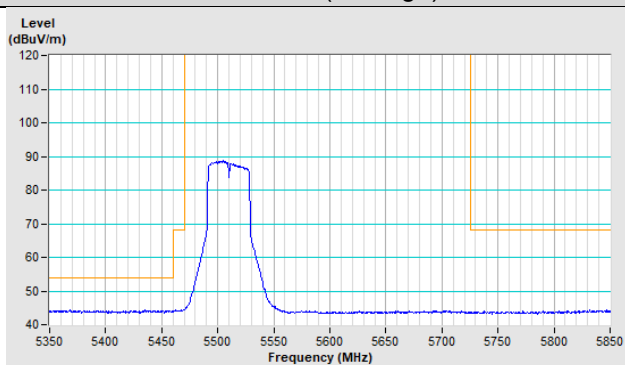


802.11ac (VHT40) Channel 102

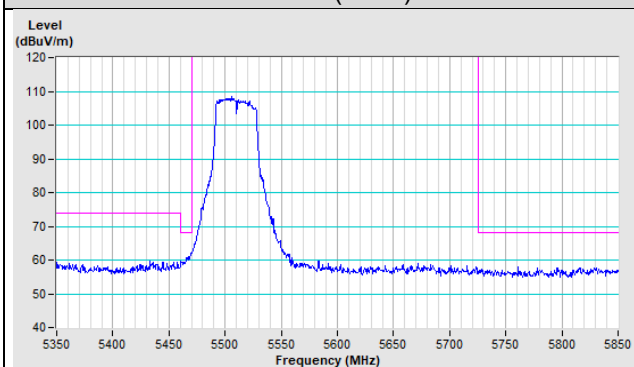
Horizontal (Peak)



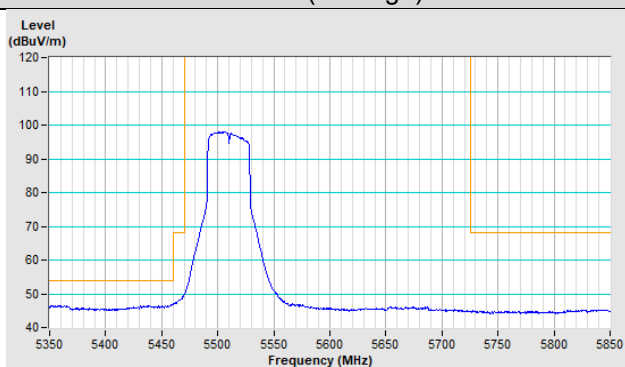
Horizontal (Average)



Vertical (Peak)

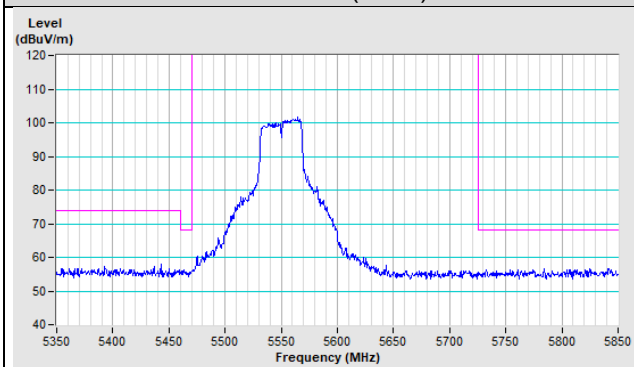


Vertical (Average)

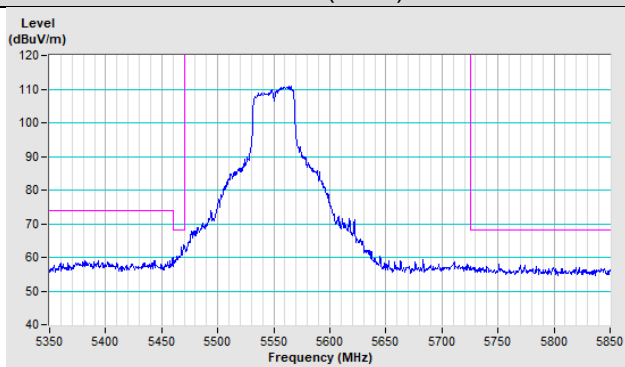


802.11ac (VHT40) Channel 110

Horizontal (Peak)

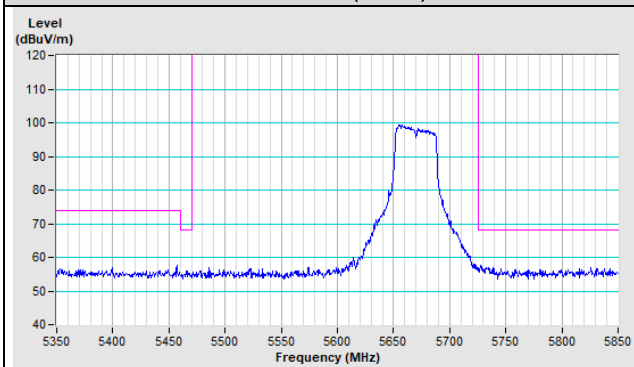


Vertical (Peak)

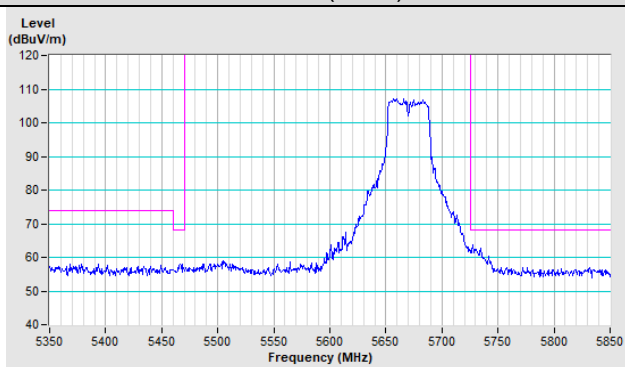


802.11ac (VHT40) Channel 134

Horizontal (Peak)

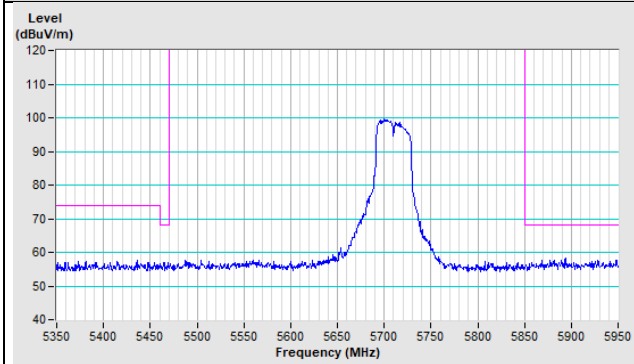


Vertical (Peak)

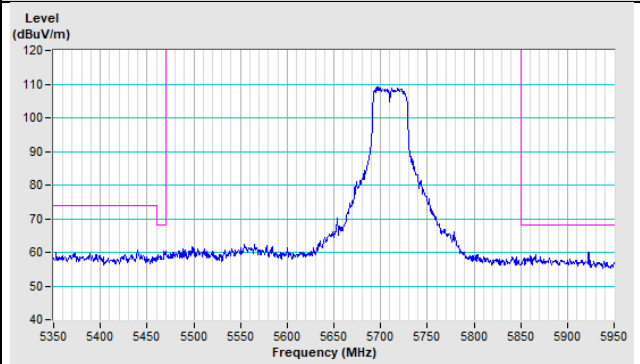


802.11ac (VHT40) Channel 142

Horizontal (Peak)

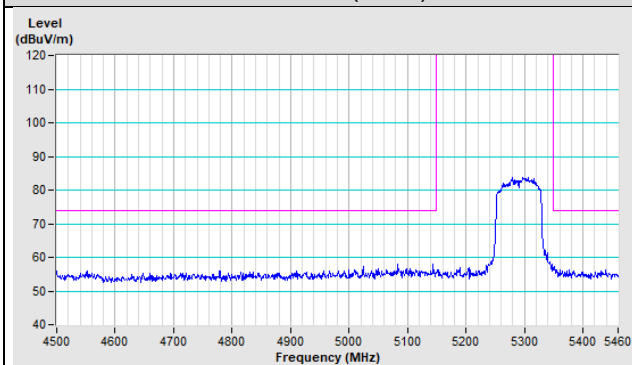


Vertical (Peak)

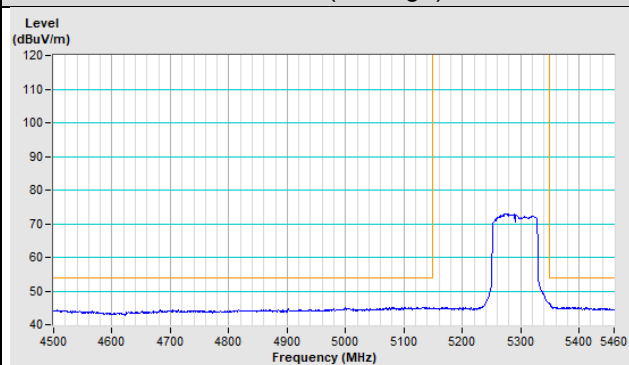


802.11ac (VHT80) Channel 58

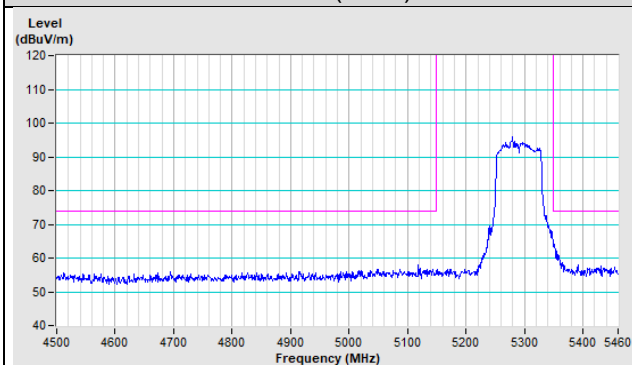
Horizontal (Peak)



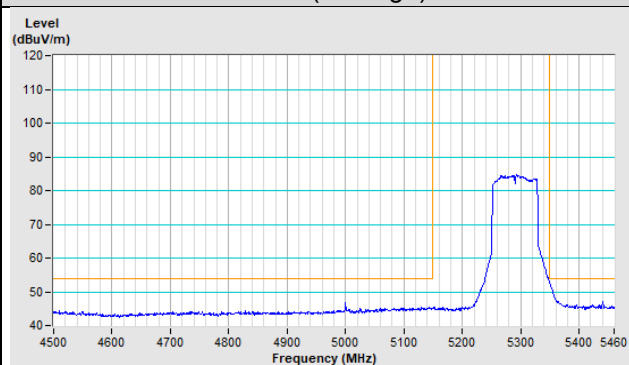
Horizontal (Average)



Vertical (Peak)

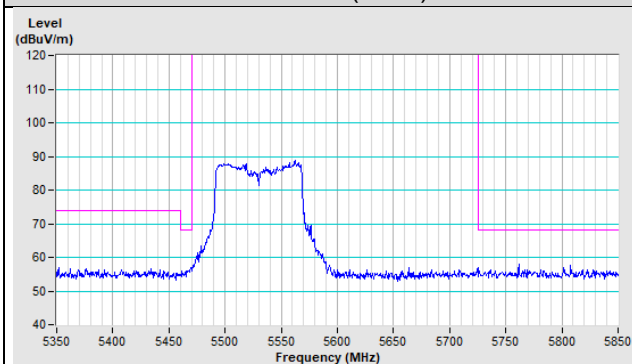


Vertical (Average)

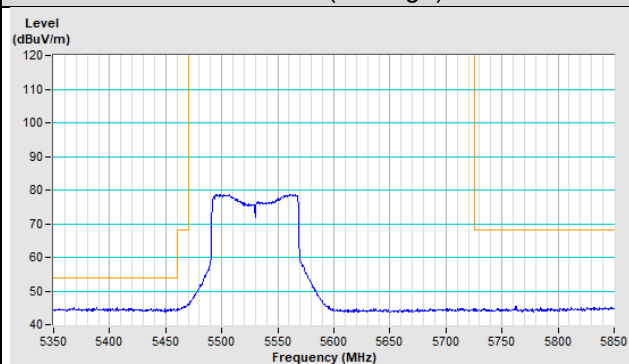


802.11ac (VHT80) Channel 106

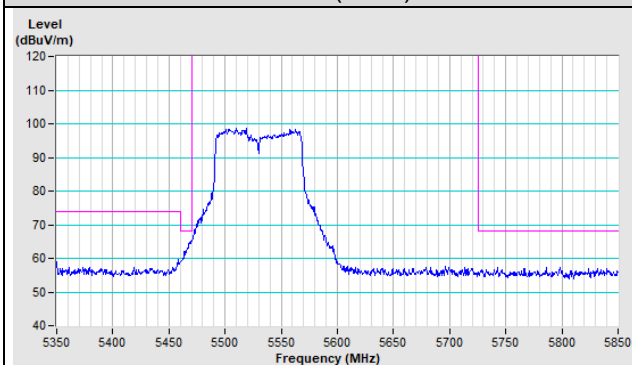
Horizontal (Peak)



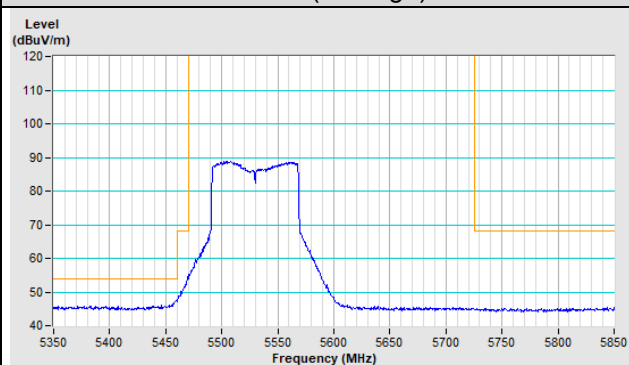
Horizontal (Average)



Vertical (Peak)

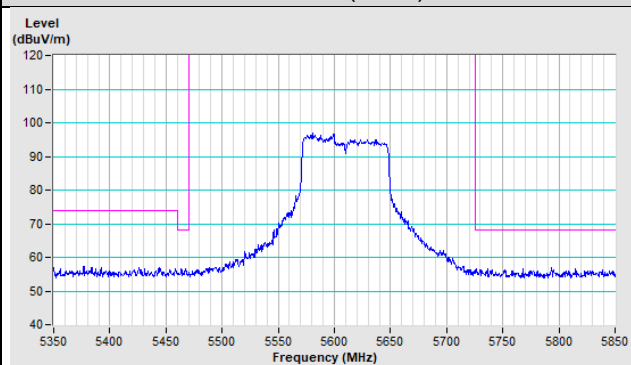


Vertical (Average)

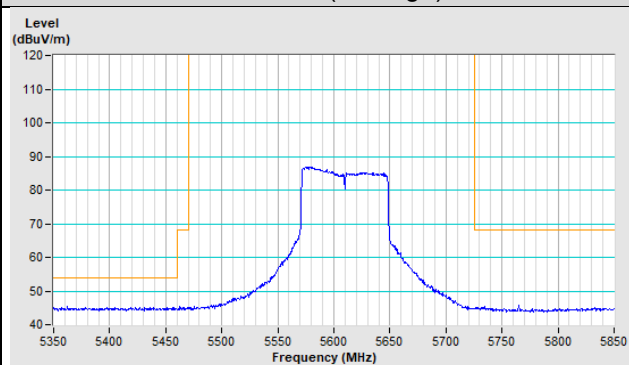


802.11ac (VHT80) Channel 122

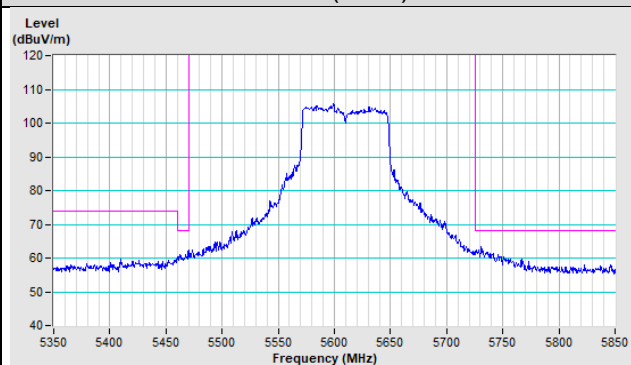
Horizontal (Peak)



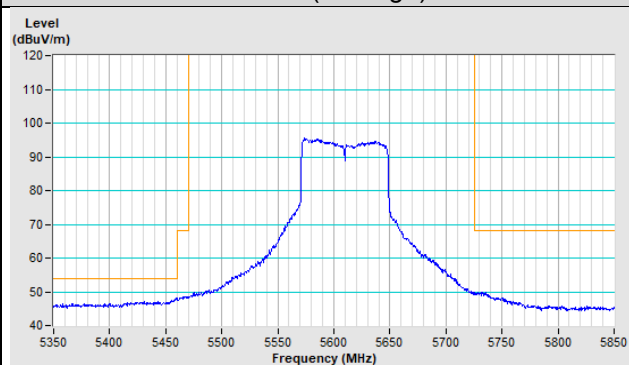
Horizontal (Average)



Vertical (Peak)

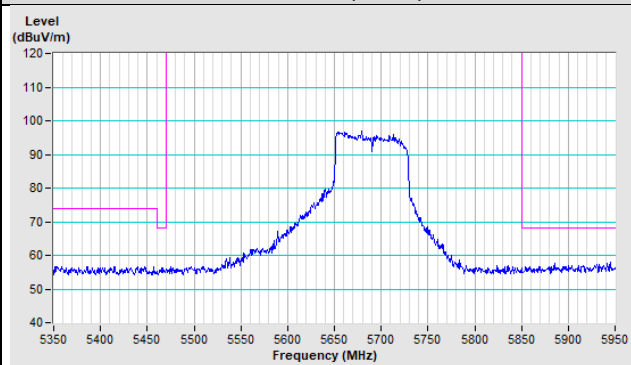


Vertical (Average)

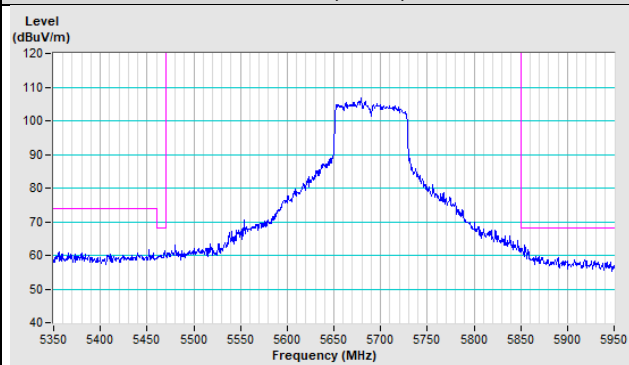


802.11ac (VHT80) Channel 138

Horizontal (Peak)



Vertical (Peak)



Appendix – Information of the Testing Laboratories

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

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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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