

## FCC Test Report (WLAN)

**Report No.:** RF201006E04-1

**FCC ID:** NOIKBN604

**Test Model:** N604

**Received Date:** Oct. 06, 2020

**Test Date:** Oct. 29 to Nov. 20, 2020

**Issued Date:** Jan. 20, 2021

**Applicant:** NETRONIX, INC.

**Address:** No. 945, Boai St., Jubei City, Hsin-Chu,302,Taiwan, R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan

**FCC Registration /  
Designation Number:** 723255 / TW2022



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### Release Control Record

Issue No.	Description	Date Issued
RF201006E04-1	Original release.	Jan. 20, 2021

## 1 Certificate of Conformity

**Product:** Electronic Display Device

**Brand:** Rakuten kobo

**Test Model:** N604

**Sample Status:** ENGINEERING SAMPLE

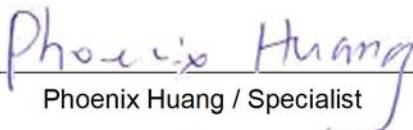
**Applicant:** NETRONIX, INC.

**Test Date:** Oct. 29 to Nov. 20, 2020

**Standard:** 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 EMC characteristics under the conditions specified in this report.

**Prepared by :**

  
Phoenix Huang / Specialist

**Date:**

Jan. 20, 2021

**Approved by :**



**Date:**

Jan. 20, 2021

Clark Lin / Technical Manager

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -10.71 dB at 0.57578 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement*	Pass	Meet the requirement of limit. Minimum passing margin is -0.1 dB at 5930.59 MHz and 11570.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

Note:

1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.
2. For U-NII-1 band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) ( $\pm$ )
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
	18GHz ~ 40GHz	5.3 dB
	9kHz ~ 30MHz	3.1 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT (WLAN)

Product	Electronic Display Device
Brand	Rakuten kobo
Test Model	N604
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	3.7 Vdc from battery or 5 Vdc from USB interface
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11 Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 150 Mbps 802.11ac: up to 433.3 Mbps
Operating Frequency	<b>2.4GHz:</b> 2.412 ~ 2.462 GHz <b>5GHz:</b> 5.18 ~ 5.24 GHz, 5.745 ~ 5.825 GHz
Number of Channel	<b>2.4GHz:</b> 802.11b, 802.11g, 802.11n (HT20): 11 <b>5GHz:</b> 802.11a, 802.11n (HT20), 802.11ac (VHT20): 9 802.11n (HT40), 802.11ac (VHT40): 4 802.11ac (VHT80): 2
Output Power	<b>2.412 ~ 2.462GHz:</b> 228.034 mW <b>5.18 ~ 5.24GHz:</b> 8.166 mW <b>5.745 ~ 5.825GHz:</b> 22.131 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	USB Cable x1 (Shielded, 1m)

Note:

1. Simultaneously transmission condition.

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

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

2. Two eMMC provided to the EUT, please refer to the following table:

No.	Model	Remark
1	EMMC32G-TA28	1 <sup>st</sup> source eMMC
2	KLMBG2JETD-B041	2 <sup>nd</sup> source eMMC

3. The antenna provided to the EUT, please refer to the following table:

Model No.	Antenna Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
RFFPA360906EMLB101	3.95	2.4~2.4835	Dipole	i-pex(MHF)	55
	4.64	5.15~5.85			

4. The EUT was pre-tested under the following modes:

For Radiated Emission test	
Test Mode	Description
Mode A	EUT with 2 <sup>nd</sup> source eMMC and power from adapter
<b>Mode B</b>	<b>EUT with 1<sup>st</sup> source eMMC and power from adapter</b>
Mode C	EUT with 1 <sup>st</sup> source eMMC and power from battery
Note: From the above modes, the worst case were found in <b>Mode B</b> . Therefore only the test data of the mode was recorded in this report.	
For AC Power Conducted Emission	
Test Mode	Description
<b>Mode D</b>	<b>EUT with 1<sup>st</sup> source eMMC and power from adapter</b>
Mode E	EUT with 1 <sup>st</sup> source eMMC and power from Laptop
Note: From the above modes, the worst case were found in <b>Mode D</b> . Therefore only the test data of the mode was recorded in this report.	

5. The EUT incorporates a SISO function.

2.4GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11b	1TX	1RX
802.11g	1TX	1RX
802.11n (HT20)	1TX	1RX
5GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	1TX	1RX
802.11n (HT20)	1TX	1RX
802.11n (HT40)	1TX	1RX
802.11ac (VHT20)	1TX	1RX
802.11ac (VHT40)	1TX	1RX
802.11ac (VHT80)	1TX	1RX
Note: The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore the manufacturer will control the power for 802.11n mode is the same as the 802.11ac or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 3.2.1)		

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

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



### 3.2 Description of Test Modes

#### FOR 5180 ~ 5240MHz

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210 MHz

#### FOR 5745 ~ 5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

### 3.2.1 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

**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 **X-plane**.

#### **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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5
802.11ac (VHT80)		155	155	OFDM	BPSK	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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11ac (VHT40)	5180-5240, 5745-5825	38 to 46, 151 to 159	151	OFDM	BPSK	13.5

#### **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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11ac (VHT40)	5180-5240, 5745-5825	38 to 46, 151 to 159	151	OFDM	BPSK	13.5

### 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5
802.11ac (VHT80)		155	155	OFDM	BPSK	29.3

### Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
<b>RE<math>\geq</math>1G</b>	24deg. C, 68%RH, 25deg. C, 75%RH, 25deg. C, 65%RH	120Vac, 60Hz	Benson Chao, Benson Chao, Carter Lin
<b>RE&lt;1G</b>	20deg. C, 68%RH	120Vac, 60Hz	Benson Chao
<b>PLC</b>	25deg. C, 68%RH	120Vac, 60Hz	Tom Yang
<b>APCM</b>	25deg. C, 60%RH	120Vac, 60Hz	Kevin Ko

### 3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %, duty factor is not required.



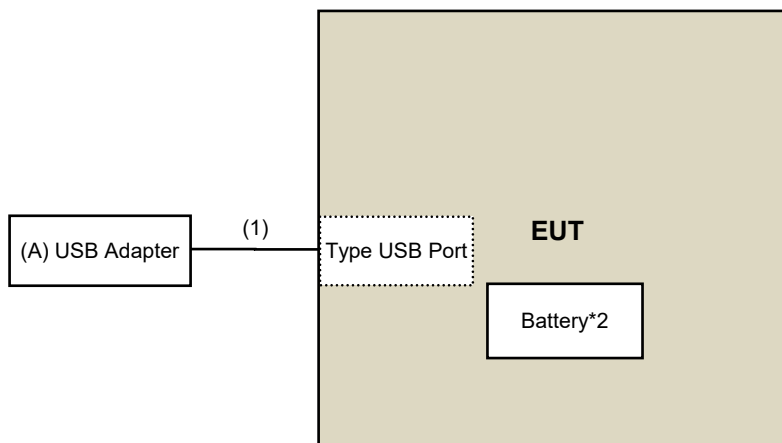
### 3.4 Description of Support Units

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.	USB Adapter	ASUS	EXA1205UA	NA	NA	Provided by Lab

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Cable	1	1	Yes	0	Supplied by client

#### 3.4.1 Configuration of System under Test



### 3.5 General Description of Applied Standard 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**

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:**

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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	15.407(b)(4)(i)	PK: -27 (dBm/MHz) <sup>*1</sup> PK: 10 (dBm/MHz) <sup>*2</sup> PK: 15.6 (dBm/MHz) <sup>*3</sup> PK: 27 (dBm/MHz) <sup>*4</sup>	PK: 68.2(dBµV/m) <sup>*1</sup> PK: 105.2 (dBµV/m) <sup>*2</sup> PK: 110.8(dBµV/m) <sup>*3</sup> PK: 122.2 (dBµV/m) <sup>*4</sup>
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) <sup>*1</sup> PK:10 (dBm/MHz) <sup>*2</sup> PK:15.6 (dBm/MHz) <sup>*3</sup> PK:27 (dBm/MHz) <sup>*4</sup>	PK: 68.2(dBµV/m) <sup>*1</sup> PK:105.2 (dBµV/m) <sup>*2</sup> PK: 110.8(dBµV/m) <sup>*3</sup> PK:122.2 (dBµV/m) <sup>*4</sup>
<sup>*1</sup> beyond 75 MHz or more above of the band edge.		<sup>*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
<sup>*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		<sup>*4</sup> 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

**For Radiated Emission test:**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR7	102026	Apr. 22, 2020	Apr. 21, 2021
Spectrum Analyzer Keysight	N9030B	MY57141948	May 22, 2020	May 21, 2021
Pre-Amplifier EMCi	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier EMCi	EMC330N	980538	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB9168	9168-0842	Nov. 08, 2019	Nov. 07, 2020
RF Cable	8D	966-5-1	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-2	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-3	Apr. 29, 2020	Apr. 28, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	Jan. 14, 2020	Jan. 13, 2021
Horn Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCi	EMC12630SE	980509	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-1500	180503	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-2000	180501	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCi	EMC104-SM-SM-6000	180506	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCi	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	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 966 Chamber No. 5.
3. Tested Date: Oct. 29 to Nov. 04, 2020



**For other test items:**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
DC Power Supply Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 16, 2020	Jan. 15, 2021
True RMS Clamp Meter FLUKE	325	31130711WS	June 06, 2020	June 05, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- NOTE:**
1. The test was performed in Oven room 2.
  2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  3. Tested Date: Nov. 20, 2020

#### 4.1.3 Test Procedure

##### **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 detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

##### **Note:**

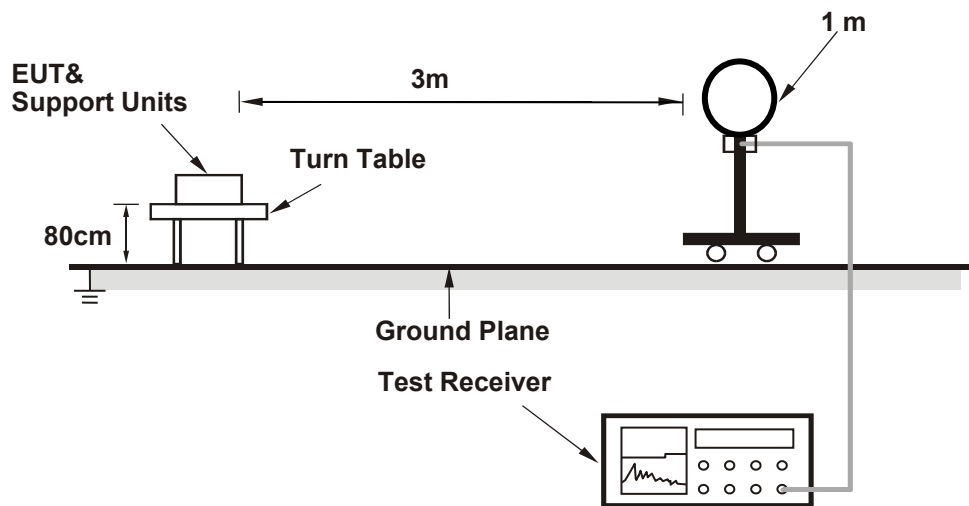
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

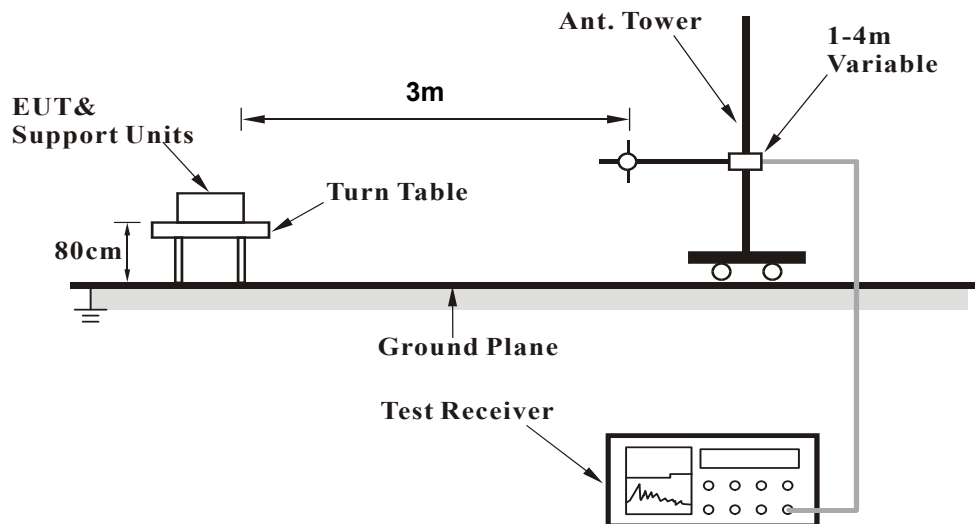
No deviation.

#### 4.1.5 Test Setup

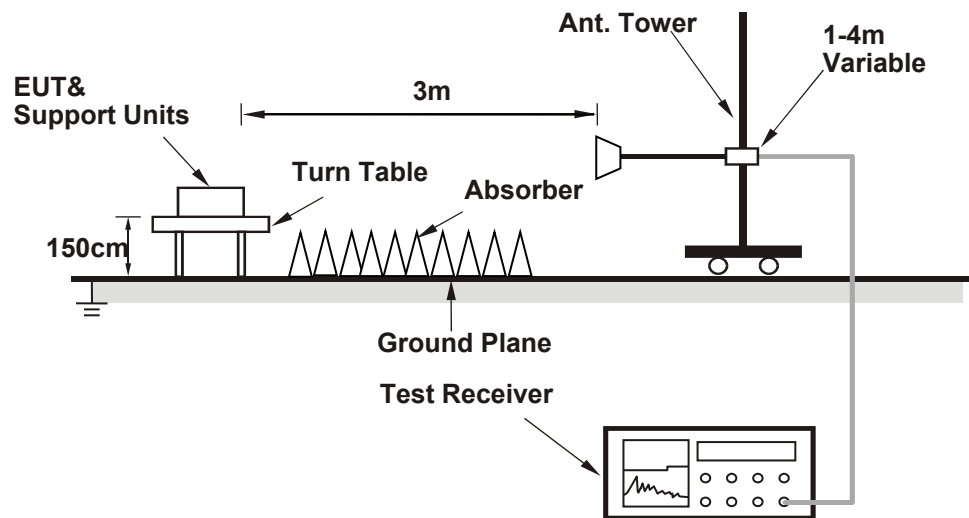
##### For Radiated emission below 30MHz



##### 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 Condition

- a. Placed the EUT on the testing table.
- b. Controlling software (Hyperterminal paste SOP.txt command) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results

##### Above 1GHz Data:

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

##### Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.6 PK	74.0	-8.4	1.32 H	301	63.9	1.7
2	5150.00	53.4 AV	54.0	-0.6	1.32 H	301	51.7	1.7
3	*5180.00	111.9 PK			1.32 H	301	110.4	1.5
4	*5180.00	102.0 AV			1.32 H	301	100.5	1.5
5	#10360.00	57.6 PK	68.2	-10.6	1.10 H	225	46.4	11.2
6	15540.00	50.0 PK	74.0	-24.0	2.59 H	255	38.3	11.7
7	15540.00	37.2 AV	54.0	-16.8	2.59 H	255	25.5	11.7

##### Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.6 PK	74.0	-11.4	3.54 V	257	60.9	1.7
2	5150.00	49.8 AV	54.0	-4.2	3.54 V	257	48.1	1.7
3	*5180.00	108.5 PK			3.54 V	257	107.0	1.5
4	*5180.00	98.8 AV			3.54 V	257	97.3	1.5
5	#10360.00	60.3 PK	68.2	-7.9	1.37 V	1	49.1	11.2
6	15540.00	55.7 PK	74.0	-18.3	2.33 V	331	44.0	11.7
7	15540.00	42.5 AV	54.0	-11.5	2.33 V	331	30.8	11.7

##### Remarks:

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	112.3 PK			1.21 H	306	110.9	1.4
2	*5200.00	102.6 AV			1.21 H	306	101.2	1.4
3	#10400.00	59.9 PK	68.2	-8.3	1.34 H	155	48.4	11.5
4	15600.00	48.3 PK	74.0	-25.7	1.24 H	246	36.8	11.5
5	15600.00	37.0 AV	54.0	-17.0	1.24 H	246	25.5	11.5

**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	*5200.00	109.2 PK			1.10 V	247	107.8	1.4
2	*5200.00	99.6 AV			1.10 V	247	98.2	1.4
3	#10400.00	61.6 PK	68.2	-6.6	1.36 V	359	50.1	11.5
4	15600.00	53.2 PK	74.0	-20.8	3.19 V	37	41.7	11.5
5	15600.00	40.0 AV	54.0	-14.0	3.19 V	37	28.5	11.5

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	110.0 PK			1.03 H	303	108.8	1.2
2	*5240.00	100.2 AV			1.03 H	303	99.0	1.2
3	5350.00	52.5 PK	74.0	-21.5	1.03 H	303	51.1	1.4
4	5350.00	39.6 AV	54.0	-14.4	1.03 H	303	38.2	1.4
5	#10480.00	53.6 PK	68.2	-14.6	1.00 H	302	42.1	11.5
6	15720.00	45.6 PK	74.0	-28.4	1.05 H	284	34.5	11.1
7	15720.00	33.5 AV	54.0	-20.5	1.05 H	284	22.4	11.1

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	*5240.00	102.4 PK			1.03 V	211	101.2	1.2
2	*5240.00	92.7 AV			1.03 V	211	91.5	1.2
3	5362.20	48.3 PK	74.0	-25.7	1.03 V	211	46.9	1.4
4	5362.20	36.9 AV	54.0	-17.1	1.03 V	211	35.5	1.4
5	#10480.00	56.4 PK	68.2	-11.8	1.24 V	307	44.9	11.5
6	15720.00	48.2 PK	74.0	-25.8	1.33 V	154	37.1	11.1
7	15720.00	35.7 AV	54.0	-18.3	1.33 V	154	24.6	11.1

**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.

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5635.02	51.8 PK	68.2	-16.4	1.31 H	303	50.1	1.7
2	*5745.00	108.7 PK			1.31 H	303	106.8	1.9
3	*5745.00	98.7 AV			1.31 H	303	96.8	1.9
4	#6000.45	53.0 PK	68.2	-15.2	1.31 H	303	50.4	2.6
5	11490.00	61.4 PK	74.0	-12.6	1.30 H	235	48.9	12.5
6	11490.00	47.4 AV	54.0	-6.6	1.30 H	235	34.9	12.5
7	#17235.00	50.8 PK	68.2	-17.4	2.15 H	246	35.0	15.8

**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	#5649.18	51.3 PK	68.2	-16.9	1.00 V	205	49.6	1.7
2	*5745.00	102.7 PK			1.00 V	205	100.8	1.9
3	*5745.00	92.7 AV			1.00 V	205	90.8	1.9
4	#6017.40	52.5 PK	68.2	-15.7	1.00 V	205	49.9	2.6
5	11490.00	67.4 PK	74.0	-6.6	1.62 V	176	54.9	12.5
6	11490.00	53.3 AV	54.0	-0.7	1.62 V	176	40.8	12.5
7	#17235.00	52.5 PK	68.2	-15.7	1.55 V	199	36.7	15.8

**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.



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5594.00	55.4 PK	68.2	-12.8	1.13 H	286	53.8	1.6
2	*5785.00	107.3 PK			1.13 H	286	105.3	2.0
3	*5785.00	97.7 AV			1.13 H	286	95.7	2.0
4	#5934.16	52.9 PK	68.2	-15.3	1.13 H	286	50.5	2.4
5	11570.00	63.6 PK	74.0	-10.4	1.02 H	346	50.7	12.9
6	11570.00	49.8 AV	54.0	-4.2	1.02 H	346	36.9	12.9
7	#17355.00	52.9 PK	68.2	-15.3	1.21 H	308	36.1	16.8

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5571.27	50.8 PK	68.2	-17.4	1.00 V	184	49.1	1.7
2	*5785.00	100.6 PK			1.00 V	184	98.6	2.0
3	*5785.00	90.8 AV			1.00 V	184	88.8	2.0
4	#5997.93	52.4 PK	68.2	-15.8	1.00 V	184	49.8	2.6
5	11570.00	67.5 PK	74.0	-6.5	1.58 V	178	54.6	12.9
6	11570.00	53.1 AV	54.0	-0.9	1.58 V	178	40.2	12.9
7	#17355.00	54.3 PK	68.2	-13.9	2.55 V	35	37.5	16.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5582.90	51.8 PK	68.2	-16.4	1.04 H	248	50.1	1.7
2	*5825.00	107.2 PK			1.04 H	248	105.0	2.2
3	*5825.00	97.6 AV			1.04 H	248	95.4	2.2
4	#5960.33	53.4 PK	68.2	-14.8	1.04 H	284	50.9	2.5
5	11650.00	65.7 PK	74.0	-8.3	1.27 H	301	52.8	12.9
6	11650.00	48.8 AV	54.0	-5.2	1.27 H	301	35.9	12.9
7	#17475.00	53.8 PK	68.2	-14.4	1.12 H	286	35.1	18.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5594.35	48.7 PK	68.2	-19.5	1.03 V	198	47.1	1.6
2	*5825.00	100.2 PK			1.03 V	198	98.0	2.2
3	*5825.00	90.5 AV			1.03 V	198	88.3	2.2
4	#5969.03	52.1 PK	68.2	-16.1	1.03 V	198	49.6	2.5
5	11650.00	68.1 PK	74.0	-5.9	1.48 V	178	55.2	12.9
6	11650.00	53.8 AV	54.0	-0.2	1.48 V	178	40.9	12.9
7	#17475.00	54.0 PK	68.2	-14.2	1.32 V	180	35.3	18.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	71.4 PK	74.0	-2.6	1.05 H	301	69.7	1.7
2	5150.00	53.4 AV	54.0	-0.6	1.05 H	301	51.7	1.7
3	*5180.00	111.9 PK			1.05 H	301	110.4	1.5
4	*5180.00	102.0 AV			1.05 H	301	100.5	1.5
5	#10360.00	53.7 PK	68.2	-14.5	1.66 H	254	42.5	11.2
6	15540.00	45.9 PK	74.0	-28.1	1.25 H	184	34.2	11.7
7	15540.00	33.4 AV	54.0	-20.6	1.25 H	184	21.7	11.7

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.3 PK	74.0	-10.7	2.89 V	116	61.6	1.7
2	5150.00	48.5 AV	54.0	-5.5	2.89 V	116	46.8	1.7
3	*5180.00	107.1 PK			2.89 V	116	105.6	1.5
4	*5180.00	97.4 AV			2.89 V	116	95.9	1.5
5	#10360.00	56.8 PK	68.2	-11.4	1.70 V	190	45.6	11.2
6	15540.00	47.1 PK	74.0	-26.9	1.45 V	236	35.4	11.7
7	15540.00	35.3 AV	54.0	-18.7	1.45 V	236	23.6	11.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	112.2 PK			1.29 H	304	110.8	1.4
2	*5200.00	102.7 AV			1.29 H	304	101.3	1.4
3	#10400.00	59.4 PK	68.2	-8.8	1.33 H	286	47.9	11.5
4	15600.00	47.3 PK	74.0	-26.7	1.02 H	275	35.8	11.5
5	15600.00	35.6 AV	54.0	-18.4	1.02 H	275	24.1	11.5

**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	*5200.00	108.8 PK			2.78 V	125	107.4	1.4
2	*5200.00	98.4 AV			2.78 V	125	97.0	1.4
3	#10400.00	60.1 PK	68.2	-8.1	1.33 V	286	48.6	11.5
4	15600.00	51.3 PK	74.0	-22.7	1.10 V	222	39.8	11.5
5	15600.00	37.2 AV	54.0	-16.8	1.10 V	222	25.7	11.5

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	109.5 PK			1.14 H	302	108.3	1.2
2	*5240.00	99.6 AV			1.14 H	302	98.4	1.2
3	5350.00	52.0 PK	74.0	-22.0	1.14 H	302	50.6	1.4
4	5350.00	39.7 AV	54.0	-14.3	1.14 H	302	38.3	1.4
5	#10480.00	64.0 PK	68.2	-4.2	1.03 H	309	52.5	11.5
6	15720.00	50.1 PK	74.0	-23.9	1.19 H	289	39.0	11.1
7	15720.00	38.4 AV	54.0	-15.6	1.19 H	289	27.3	11.1

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	*5240.00	106.2 PK			2.76 V	102	105.0	1.2
2	*5240.00	96.3 AV			2.76 V	102	95.1	1.2
3	5400.63	50.1 PK	74.0	-23.9	2.76 V	102	48.7	1.4
4	5400.63	38.0 AV	54.0	-16.0	2.76 V	102	36.6	1.4
5	#10480.00	56.9 PK	68.2	-11.3	1.21 V	215	45.4	11.5
6	15720.00	48.4 PK	74.0	-25.6	1.42 V	208	37.3	11.1
7	15720.00	35.5 AV	54.0	-18.5	1.42 V	208	24.4	11.1

**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.

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5644.50	53.9 PK	68.2	-14.3	1.34 H	283	52.2	1.7
2	*5745.00	113.2 PK			1.34 H	283	111.3	1.9
3	*5745.00	102.8 AV			1.34 H	283	100.9	1.9
4	#5973.03	52.6 PK	68.2	-15.6	1.34 H	283	50.1	2.5
5	11490.00	64.7 PK	74.0	-9.3	1.98 H	294	52.2	12.5
6	11490.00	50.9 AV	54.0	-3.1	1.98 H	294	38.4	12.5
7	#17235.00	51.4 PK	68.2	-16.8	1.48 H	253	35.6	15.8

**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	#5649.60	50.9 PK	68.2	-17.3	2.78 V	255	49.2	1.7
2	*5745.00	109.9 PK			2.78 V	255	108.0	1.9
3	*5745.00	99.5 AV			2.78 V	255	97.6	1.9
4	#5990.04	52.1 PK	68.2	-16.1	2.78 V	255	49.6	2.5
5	11490.00	66.8 PK	74.0	-7.2	1.10 V	225	54.3	12.5
6	11490.00	53.3 AV	54.0	-0.7	1.10 V	225	40.8	12.5
7	#17235.00	52.4 PK	68.2	-15.8	1.24 V	207	36.6	15.8

**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.

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5592.33	51.9 PK	68.2	-16.3	1.23 H	286	50.3	1.6
2	*5785.00	113.1 PK			1.23 H	286	111.1	2.0
3	*5785.00	102.7 AV			1.23 H	286	100.7	2.0
4	#5942.54	52.9 PK	68.2	-15.3	1.23 H	286	50.5	2.4
5	11570.00	65.4 PK	74.0	-8.6	1.14 H	294	52.5	12.9
6	11570.00	51.0 AV	54.0	-3.0	1.14 H	294	38.1	12.9
7	#17355.00	51.9 PK	68.2	-16.3	1.00 H	313	35.1	16.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5599.53	50.6 PK	68.2	-17.6	3.58 V	253	49.0	1.6
2	*5785.00	109.0 PK			3.58 V	253	107.0	2.0
3	*5785.00	98.9 AV			3.58 V	253	96.9	2.0
4	#5949.66	52.3 PK	68.2	-15.9	3.58 V	253	49.8	2.5
5	11570.00	68.7 PK	74.0	-5.3	1.17 V	206	55.8	12.9
<b>6</b>	<b>11570.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.17 V</b>	<b>206</b>	<b>41.0</b>	<b>12.9</b>
7	#17355.00	54.4 PK	68.2	-13.8	1.24 V	255	37.6	16.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT20)	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5632.46	51.8 PK	68.2	-16.4	1.02 H	285	50.1	1.7
2	*5825.00	113.5 PK			1.02 H	285	111.3	2.2
3	*5825.00	103.1 AV			1.02 H	285	100.9	2.2
4	#5938.86	55.2 PK	68.2	-13.0	1.02 H	285	52.8	2.4
5	11650.00	65.1 PK	74.0	-8.9	1.08 H	296	52.2	12.9
6	11650.00	50.8 AV	54.0	-3.2	1.08 H	296	37.9	12.9
7	#17475.00	51.1 PK	68.2	-17.1	1.15 H	275	32.4	18.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5572.96	50.9 PK	68.2	-17.3	3.81 V	273	49.2	1.7
2	*5825.00	111.4 PK			3.81 V	273	109.2	2.2
3	*5825.00	100.9 AV			3.81 V	273	98.7	2.2
4	#5970.07	52.0 PK	68.2	-16.2	3.81 V	273	49.5	2.5
5	11650.00	68.2 PK	74.0	-5.8	1.88 V	311	55.3	12.9
6	11650.00	53.5 AV	54.0	-0.5	1.88 V	311	40.6	12.9
7	#17475.00	53.7 PK	68.2	-14.5	1.03 V	269	35.0	18.7

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 38 : 5190 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	1.20 H	302	56.3	1.7
2	5150.00	45.4 AV	54.0	-8.6	1.20 H	302	43.7	1.7
3	*5190.00	100.8 PK			1.20 H	302	99.3	1.5
4	*5190.00	90.4 AV			1.20 H	302	88.9	1.5
5	#10380.00	54.3 PK	68.2	-13.9	1.71 H	267	43.0	11.3
6	15570.00	45.4 PK	74.0	-28.6	1.29 H	193	33.8	11.6
7	15570.00	32.9 AV	54.0	-21.1	1.29 H	193	21.3	11.6

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	62.0 PK	74.0	-12.0	2.90 V	117	60.3	1.7
2	5150.00	48.7 AV	54.0	-5.3	2.90 V	117	47.0	1.7
3	*5190.00	100.1 PK			2.90 V	117	98.6	1.5
4	*5190.00	90.1 AV			2.90 V	117	88.6	1.5
5	#10380.00	55.7 PK	68.2	-12.5	1.24 V	295	44.4	11.3
6	15570.00	48.6 PK	74.0	-25.4	1.30 V	143	37.0	11.6
7	15570.00	35.9 AV	54.0	-18.1	1.30 V	143	24.3	11.6

**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.

<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 46 : 5230 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	*5230.00	104.9 PK			1.01 H	302	103.6	1.3
2	*5230.00	95.0 AV			1.01 H	302	93.7	1.3
3	5380.47	50.8 PK	74.0	-23.2	1.01 H	302	49.4	1.4
4	5380.47	38.7 AV	54.0	-15.3	1.01 H	302	37.3	1.4
5	#10460.00	54.3 PK	68.2	-13.9	1.63 H	252	43.0	11.3
6	15690.00	45.4 PK	74.0	-28.6	1.24 H	193	34.2	11.2
7	15690.00	33.0 AV	54.0	-21.0	1.24 H	193	21.8	11.2

**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	*5230.00	102.0 PK			2.72 V	102	100.7	1.3
2	*5230.00	91.9 AV			2.72 V	102	90.6	1.3
3	5384.76	49.8 PK	74.0	-24.2	2.72 V	102	48.4	1.4
4	5384.76	37.7 AV	54.0	-16.3	2.72 V	102	36.3	1.4
5	#10460.00	56.5 PK	68.2	-11.7	1.19 V	323	45.2	11.3
6	15690.00	47.5 PK	74.0	-26.5	1.38 V	160	36.3	11.2
7	15690.00	35.3 AV	54.0	-18.7	1.38 V	160	24.1	11.2

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.09	60.6 PK	68.2	-7.6	1.00 H	289	58.9	1.7
2	*5755.00	109.0 PK			1.00 H	289	107.1	1.9
3	*5755.00	98.8 AV			1.00 H	289	96.9	1.9
4	#5931.32	53.0 PK	68.2	-15.2	1.00 H	289	50.6	2.4
5	11510.00	60.1 PK	74.0	-13.9	1.29 H	308	47.6	12.5
6	11510.00	46.3 AV	54.0	-7.7	1.29 H	308	33.8	12.5
7	#17265.00	48.7 PK	68.2	-19.5	1.28 H	170	32.7	16.0

**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	#5644.09	52.7 PK	68.2	-15.5	3.59 V	256	51.0	1.7
2	*5755.00	102.4 PK			3.59 V	256	100.5	1.9
3	*5755.00	92.3 AV			3.59 V	256	90.4	1.9
4	#5954.65	52.4 PK	68.2	-15.8	3.59 V	256	49.9	2.5
5	11510.00	61.2 PK	74.0	-12.8	1.25 V	306	48.7	12.5
6	11510.00	47.3 AV	54.0	-6.7	1.25 V	306	34.8	12.5
7	#17265.00	50.4 PK	68.2	-17.8	1.32 V	162	34.4	16.0

**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.

<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.54	55.3 PK	68.2	-12.9	1.08 H	290	53.6	1.7
2	*5795.00	109.7 PK			1.08 H	290	107.6	2.1
3	*5795.00	98.4 AV			1.08 H	290	96.3	2.1
4	#5928.05	60.1 PK	68.2	-8.1	1.08 H	290	57.7	2.4
5	11590.00	59.5 PK	74.0	-14.5	1.29 H	310	46.7	12.8
6	11590.00	45.9 AV	54.0	-8.1	1.29 H	310	33.1	12.8
7	#17385.00	49.1 PK	68.2	-19.1	1.33 H	158	31.8	17.3

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5585.85	51.2 PK	68.2	-17.0	3.93 V	273	49.5	1.7
2	*5795.00	103.5 PK			3.93 V	273	101.4	2.1
3	*5795.00	93.5 AV			3.93 V	273	91.4	2.1
4	#5943.71	51.8 PK	68.2	-16.4	3.93 V	273	49.3	2.5
5	11590.00	61.6 PK	74.0	-12.4	1.20 V	306	48.8	12.8
6	11590.00	47.8 AV	54.0	-6.2	1.20 V	306	35.0	12.8
7	#17385.00	51.5 PK	68.2	-16.7	1.32 V	151	34.2	17.3

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 42 : 5210 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	5145.75	65.7 PK	74.0	-8.3	1.28 H	304	64.0	1.7
2	5145.75	52.8 AV	54.0	-1.2	1.28 H	304	51.1	1.7
3	*5210.00	102.8 PK			1.28 H	304	101.4	1.4
4	*5210.00	92.3 AV			1.28 H	304	90.9	1.4
5	5351.59	51.5 PK	74.0	-22.5	1.28 H	304	50.1	1.4
6	5351.59	40.8 AV	54.0	-13.2	1.28 H	304	39.4	1.4
7	#10420.00	54.4 PK	68.2	-13.8	1.61 H	249	43.0	11.4
8	15630.00	45.1 PK	74.0	-28.9	1.21 H	199	33.7	11.4
9	15630.00	33.0 AV	54.0	-21.0	1.21 H	199	21.6	11.4

**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	5148.12	57.1 PK	74.0	-16.9	1.03 V	210	55.4	1.7
2	5148.12	44.8 AV	54.0	-9.2	1.03 V	210	43.1	1.7
3	*5210.00	95.3 PK			1.03 V	210	93.9	1.4
4	*5210.00	84.9 AV			1.03 V	210	83.5	1.4
5	5367.96	49.2 PK	74.0	-24.8	1.03 V	210	47.8	1.4
6	5367.96	37.8 AV	54.0	-16.2	1.03 V	210	36.4	1.4
7	#10420.00	56.7 PK	68.2	-11.5	1.29 V	319	45.3	11.4
8	15630.00	48.5 PK	74.0	-25.5	1.37 V	144	37.1	11.4
9	15630.00	36.0 AV	54.0	-18.0	1.37 V	144	24.6	11.4

**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.

<b>RF Mode</b>	TX 802.11ac (VHT80)	<b>Channel</b>	CH 155 : 5775 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	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	#5643.88	63.9 PK	68.2	-4.3	1.00 H	290	62.2	1.7
2	*5775.00	104.1 PK			1.00 H	290	102.1	2.0
3	*5775.00	94.0 AV			1.00 H	290	92.0	2.0
<b>4</b>	<b>#5930.59</b>	<b>68.1 PK</b>	<b>68.2</b>	<b>-0.1</b>	<b>1.00 H</b>	<b>290</b>	<b>65.7</b>	<b>2.4</b>
5	11550.00	60.0 PK	74.0	-14.0	1.28 H	308	47.3	12.7
6	11550.00	46.4 AV	54.0	-7.6	1.28 H	308	33.7	12.7
7	#17325.00	48.7 PK	68.2	-19.5	1.27 H	181	32.3	16.4

**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	#5641.98	56.9 PK	68.2	-11.3	1.00 V	206	55.2	1.7
2	*5775.00	98.2 PK			1.00 V	206	96.2	2.0
3	*5775.00	87.9 AV			1.00 V	206	85.9	2.0
4	#5930.15	60.6 PK	68.2	-7.6	1.00 V	206	58.2	2.4
5	11550.00	61.9 PK	74.0	-12.1	1.15 V	317	49.2	12.7
6	11550.00	48.1 AV	54.0	-5.9	1.15 V	317	35.4	12.7
7	#17325.00	51.5 PK	68.2	-16.7	1.34 V	150	35.1	16.4

**Remarks:**

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

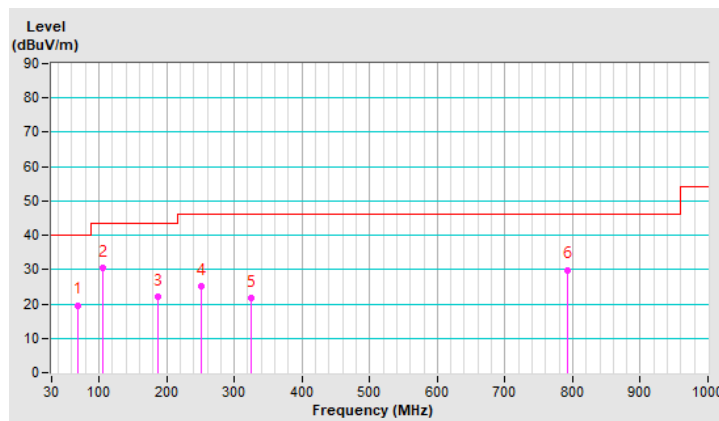
**Below 1GHz Data:**

<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	9kHz ~ 1GHz	<b>Detector Function</b>	Quasi-Peak (QP)

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	68.75	19.6 QP	40.0	-20.4	3.00 H	0	34.2	-14.6
2	105.37	30.6 QP	43.5	-12.9	3.00 H	0	46.8	-16.2
3	188.02	22.1 QP	43.5	-21.4	1.50 H	16	37.3	-15.2
4	250.49	25.1 QP	46.0	-20.9	1.00 H	0	38.9	-13.8
5	325.72	21.6 QP	46.0	-24.4	1.00 H	0	32.7	-11.1
6	792.02	29.9 QP	46.0	-16.1	1.00 H	298	32.2	-2.3

**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 of frequency range 30MHz~1000MHz.
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.



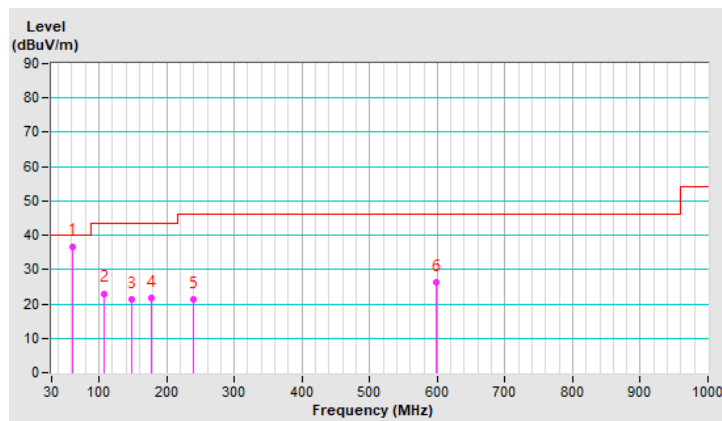
<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	9kHz ~ 1GHz	<b>Detector Function</b>	Quasi-Peak (QP)

**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	61.96	36.8 QP	40.0	-3.2	1.00 V	78	50.2	-13.4
2	107.80	23.1 QP	43.5	-20.4	2.00 V	113	38.9	-15.8
3	148.83	21.5 QP	43.5	-22.0	1.00 V	40	34.0	-12.5
4	178.13	21.8 QP	43.5	-21.7	1.00 V	358	35.7	-13.9
5	239.14	21.4 QP	46.0	-24.6	2.00 V	236	35.7	-14.3
6	597.62	26.3 QP	46.0	-19.7	1.00 V	282	31.2	-4.9

**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 of frequency range 30MHz~1000MHz.
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.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

**Note:**

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: Nov. 03, 2020

#### 4.2.3 Test Procedure

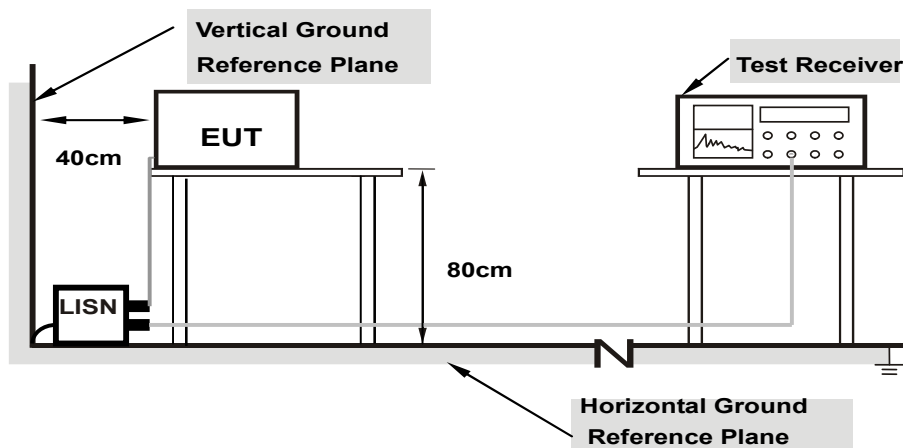
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

**Note:** All modes of operation were investigated and the worst-case emissions are reported.

#### 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 Condition

Same as 4.1.6.

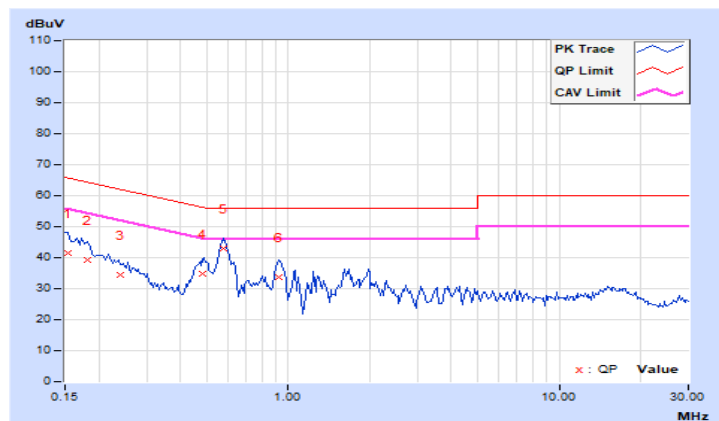
## 4.2.7 Test Results

<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.92	31.47	20.63	41.39	30.55	65.79	55.79	-24.40	-25.24
2	0.18125	9.94	29.50	19.78	39.44	29.72	64.43	54.43	-24.99	-24.71
3	0.23984	9.96	24.45	15.97	34.41	25.93	62.10	52.10	-27.69	-26.17
4	0.48203	9.99	24.88	16.98	34.87	26.97	56.30	46.30	-21.43	-19.33
<b>5</b>	<b>0.57578</b>	<b>9.99</b>	<b>33.00</b>	<b>25.30</b>	<b>42.99</b>	<b>35.29</b>	<b>56.00</b>	<b>46.00</b>	<b>-13.01</b>	<b>-10.71</b>
6	0.91953	10.01	23.66	15.63	33.67	25.64	56.00	46.00	-22.33	-20.36

## 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

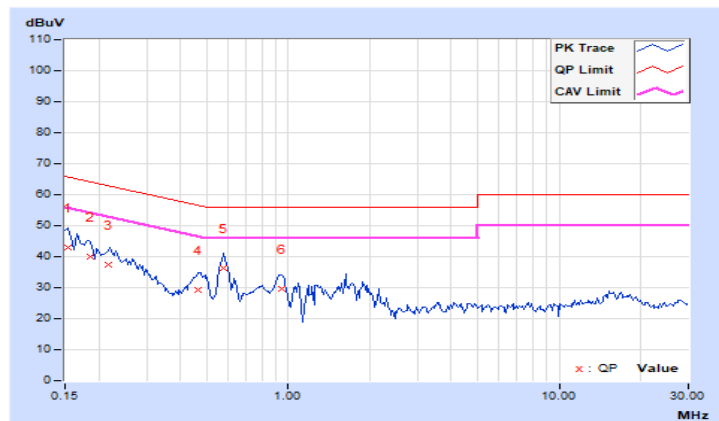


<b>RF Mode</b>	TX 802.11ac (VHT40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.93	33.03	16.49	42.96	26.42	65.79	55.79	-22.83	-29.37
2	0.18516	9.95	30.21	15.68	40.16	25.63	64.25	54.25	-24.09	-28.62
3	0.21569	9.96	27.28	13.85	37.24	23.81	62.98	52.98	-25.74	-29.17
4	0.46250	10.01	19.40	8.18	29.41	18.19	56.65	46.65	-27.24	-28.46
5	0.57578	10.02	26.34	16.43	36.36	26.45	56.00	46.00	-19.64	-19.55
6	0.94297	10.05	19.60	8.37	29.65	18.42	56.00	46.00	-26.35	-27.58

**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



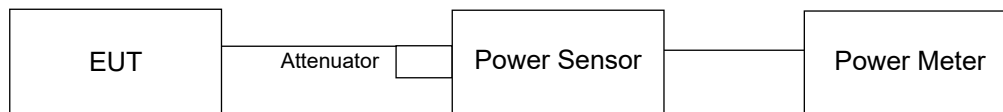
### 4.3 Transmit Power Measurement

#### 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)
	√	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

#### 4.3.2 Test Setup



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

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

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Condition

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

#### 4.3.7 Test Results

##### 802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	7.816	8.93	24	Pass
40	5200	7.603	8.81	24	Pass
48	5240	7.889	8.97	24	Pass
149	5745	21.135	13.25	30	Pass
157	5785	21.577	13.34	30	Pass
165	5825	20.941	13.21	30	Pass

##### 802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	7.656	8.84	24	Pass
40	5200	7.798	8.92	24	Pass
48	5240	7.87	8.96	24	Pass
149	5745	20.797	13.18	30	Pass
157	5785	21.086	13.24	30	Pass
165	5825	21.232	13.27	30	Pass

##### 802.11ac (VHT40)

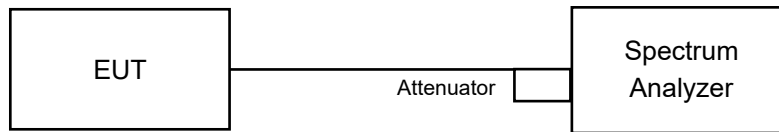
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
38	5190	7.447	8.72	24	Pass
46	5230	8.166	9.12	24	Pass
151	5755	22.131	13.45	30	Pass
159	5795	20.091	13.03	30	Pass

##### 802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
42	5210	7.638	8.83	24	Pass
155	5775	20.417	13.10	30	Pass

## 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 SAMPLE. 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 Results

##### 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.8
40	5200	16.8
48	5240	16.68
149	5745	16.8
157	5785	16.8
165	5825	16.8

##### 802.11ac (VHT20)

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

##### 802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.96
46	5230	36.48
151	5755	37.2
159	5795	36.96

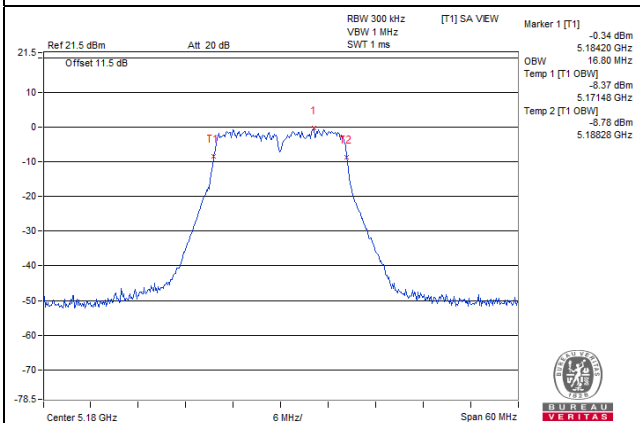
##### 802.11ac (VHT80)

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

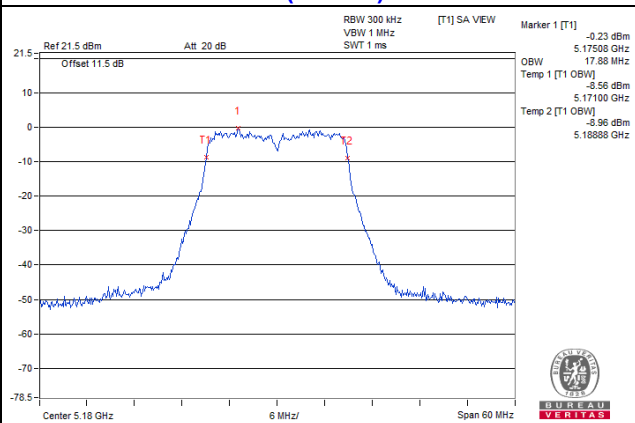


Spectrum Plot of Max. Worst Value

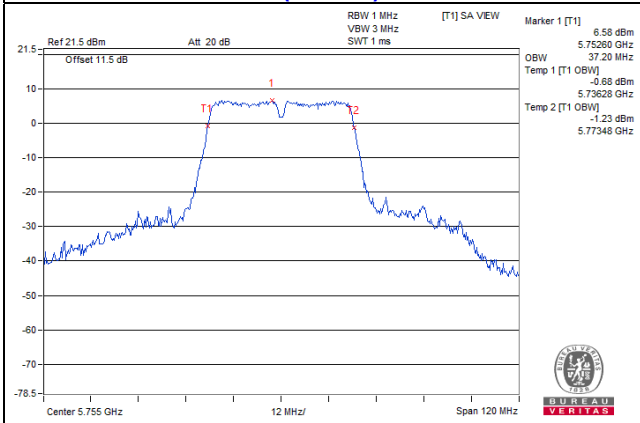
802.11a / CH36



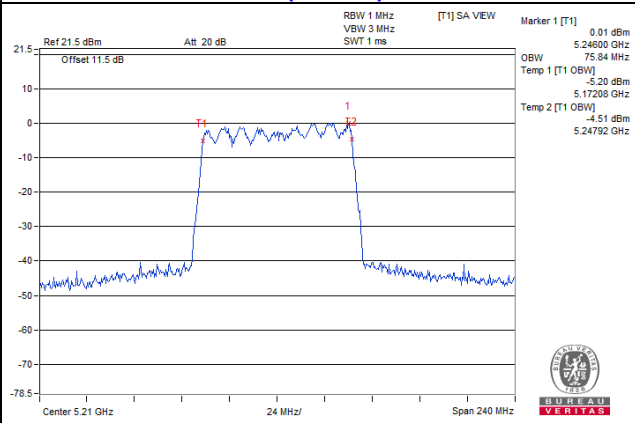
802.11ac (VHT20) / CH36



802.11ac (VHT40) / CH151

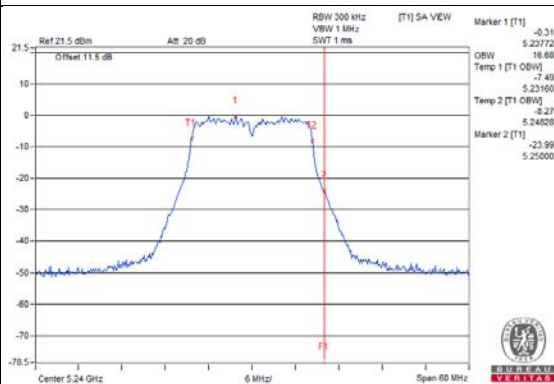


802.11ac (VHT80) / CH42

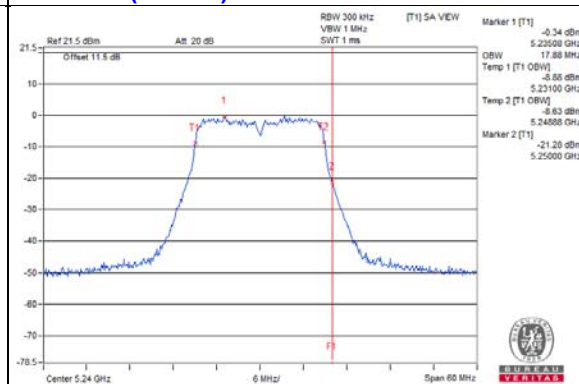


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2A band)**

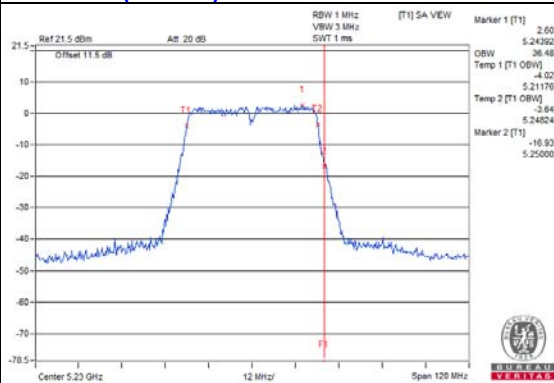
**802.11a / CH48**



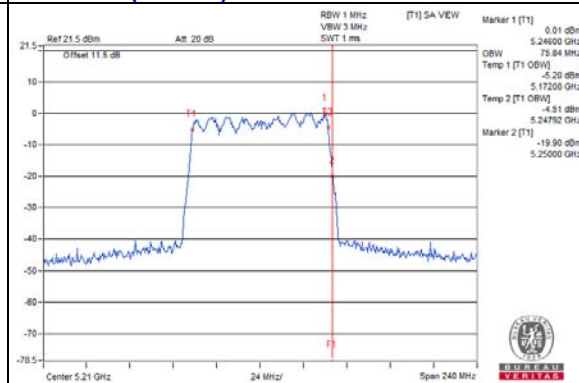
**802.11ac (VHT20) / CH48**



**802.11ac (VHT40) / CH46**

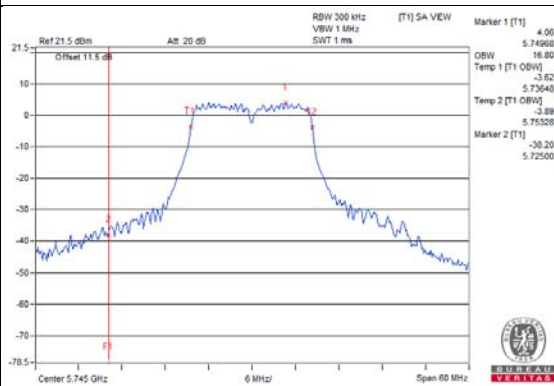


**802.11ac (VHT80) / CH42**

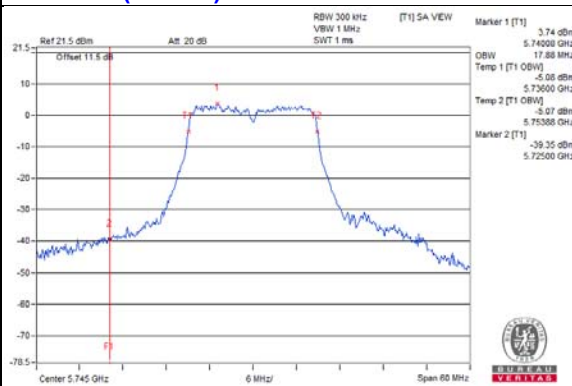


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2C band)**

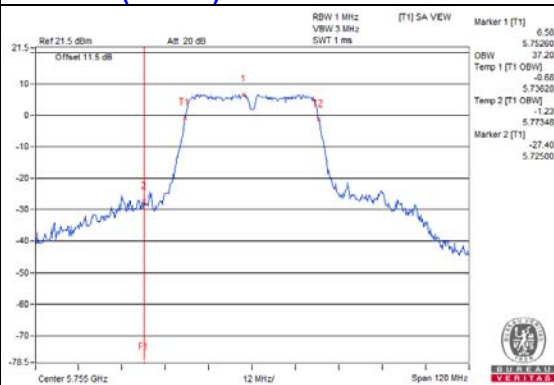
**802.11a / CH149**



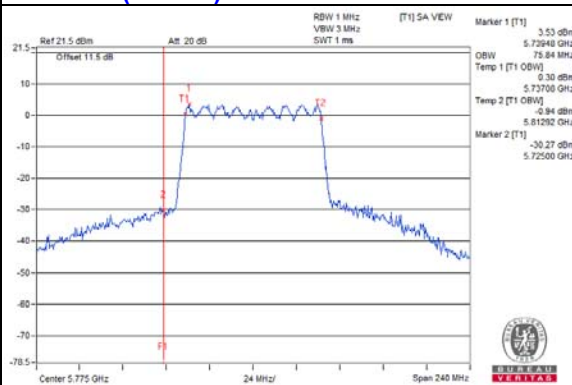
**802.11ac (VHT20) / CH149**



**802.11ac (VHT40) / CH151**



**802.11ac (VHT80) / CH155**

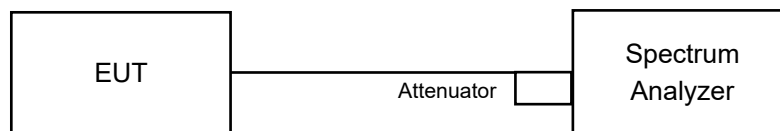


## 4.5 Peak Power Spectral Density Measurement

### 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	
	√	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 Procedure

#### For U-NII-1 band:

Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run".
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

#### For U-NII-3 band:

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

#### 4.5.5 Deviation from Test Standard

No deviation.

#### 4.5.6 EUT Operating Condition

Same as Item 4.3.6.

#### 4.5.7 Test Results

##### For U-NII-1 band:

##### 802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	-4.07	11.00	Pass
40	5200	-4.05	11.00	Pass
48	5240	-4.07	11.00	Pass

##### 802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	-4.17	11.00	Pass
40	5200	-4.13	11.00	Pass
48	5240	-4.14	11.00	Pass

##### 802.11ac (VHT40)

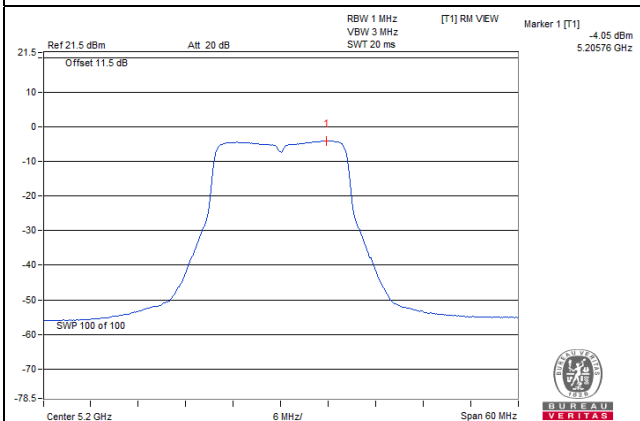
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
38	5190	-7.23	11.00	Pass
46	5230	-6.70	11.00	Pass

##### 802.11ac (VHT80)

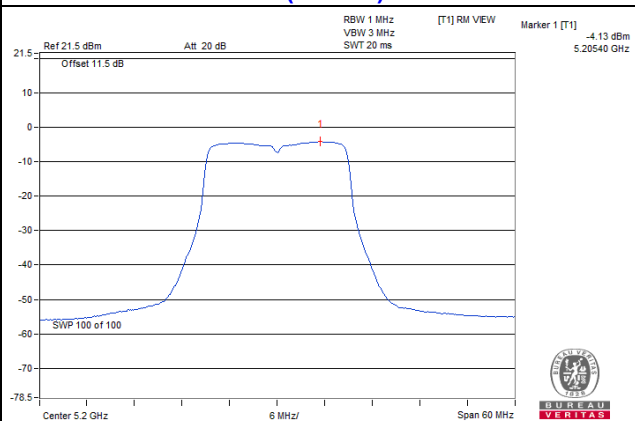
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
42	5210	-8.76	11.00	Pass

Spectrum Plot of Worst Value

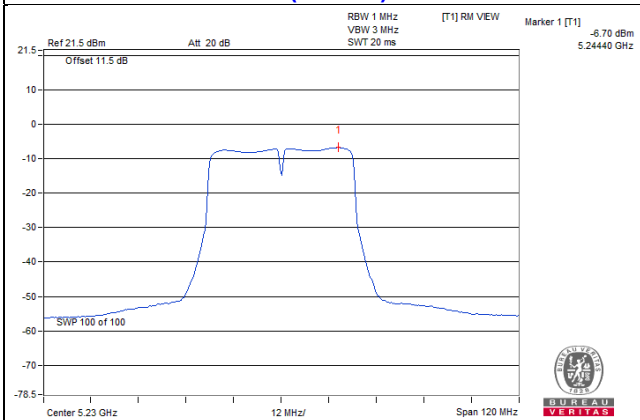
802.11a / CH40



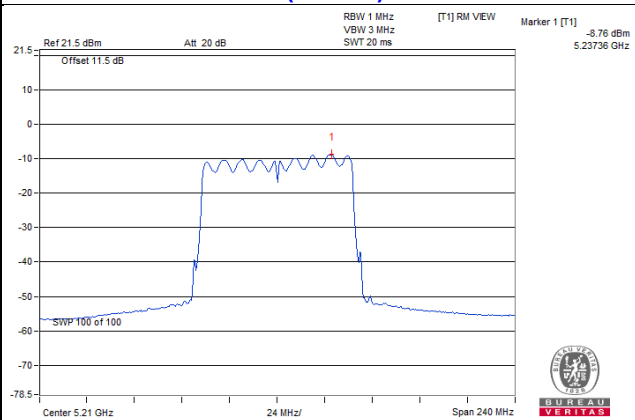
802.11ac (VHT20) / CH40



802.11ac (VHT40) / CH46



802.11ac (VHT80) / CH42



**For U-NII-3 band:**

**802.11a**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
149	5745	-8.47	-6.25	30.00	Pass
157	5785	-8.22	-6.00	30.00	Pass
165	5825	-8.05	-5.83	30.00	Pass

**802.11ac (VHT20)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
149	5745	-8.88	-6.66	30.00	Pass
157	5785	-8.54	-6.32	30.00	Pass
165	5825	-8.37	-6.15	30.00	Pass

**802.11ac (VHT40)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
151	5755	-11.86	-9.64	30.00	Pass
159	5795	-12.37	-10.15	30.00	Pass

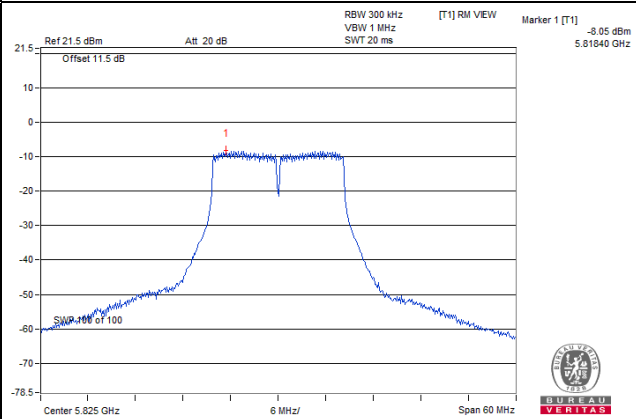
**802.11ac (VHT80)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
155	5775	-14.68	-12.46	30.00	Pass

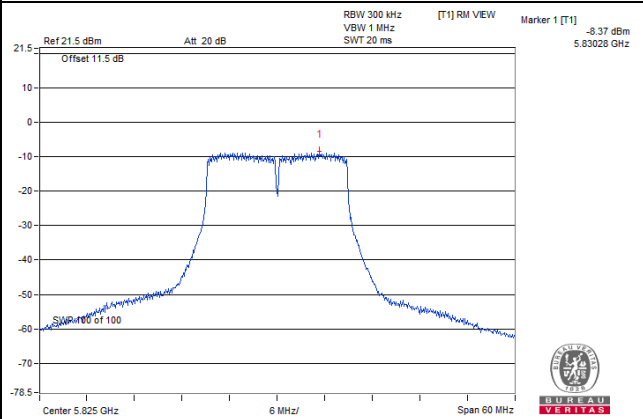


Spectrum Plot of Worst Value

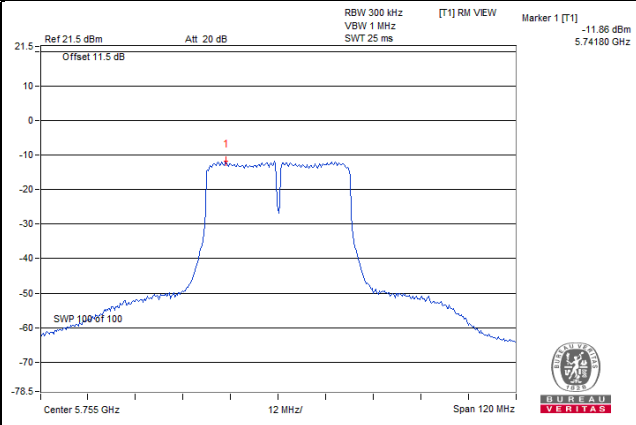
802.11a / CH165



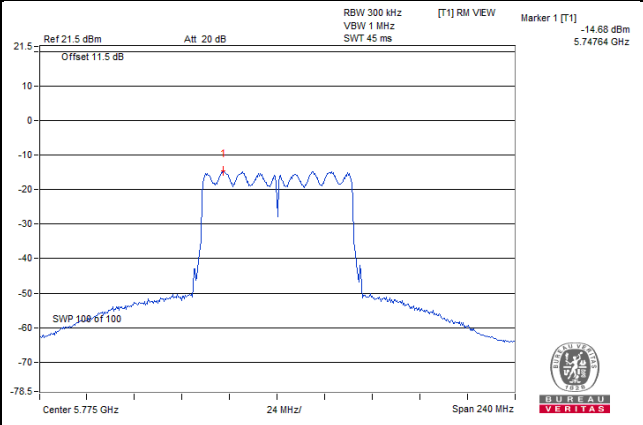
802.11ac (VHT20) / CH165



802.11ac (VHT40) / CH151



802.11ac (VHT80) / CH155

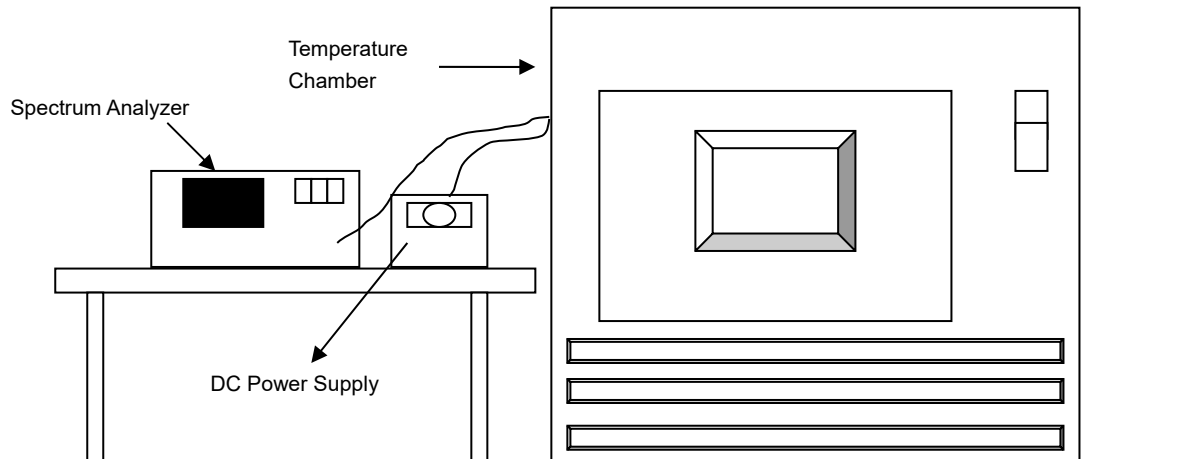


## 4.6 Frequency Stability Measurement

### 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

Refer to section 4.1.2 to get information of above instrument.

### 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 the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 4.6.5 Deviation from Test Standard

No deviation.

### 4.6.6 EUT Operating Condition

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

## 4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
45	5	5179.9913	Pass	5179.9893	Pass	5179.9903	Pass	5179.9884	Pass
40	5	5180.0176	Pass	5180.0144	Pass	5180.016	Pass	5180.0167	Pass
30	5	5180.0117	Pass	5180.013	Pass	5180.0154	Pass	5180.0137	Pass
20	5	5179.9911	Pass	5179.987	Pass	5179.9891	Pass	5179.9875	Pass
10	5	5180.0019	Pass	5180.0026	Pass	5180.004	Pass	5180.001	Pass
0	5	5180.0097	Pass	5180.007	Pass	5180.0078	Pass	5180.009	Pass

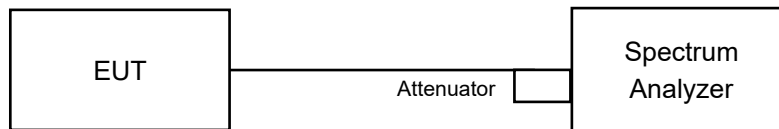
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	5.75	5179.9911	Pass	5179.9874	Pass	5179.9885	Pass	5179.9883	Pass
	5	5179.9911	Pass	5179.987	Pass	5179.9891	Pass	5179.9875	Pass
	4.25	5179.9904	Pass	5179.9863	Pass	5179.9894	Pass	5179.9883	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

#### MEASUREMENT PROCEDURE REF

- 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

##### 802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.6	0.5	Pass
157	5785	16.58	0.5	Pass
165	5825	16.61	0.5	Pass

##### 802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.74	0.5	Pass
157	5785	17.72	0.5	Pass
165	5825	17.72	0.5	Pass

##### 802.11ac (VHT40)

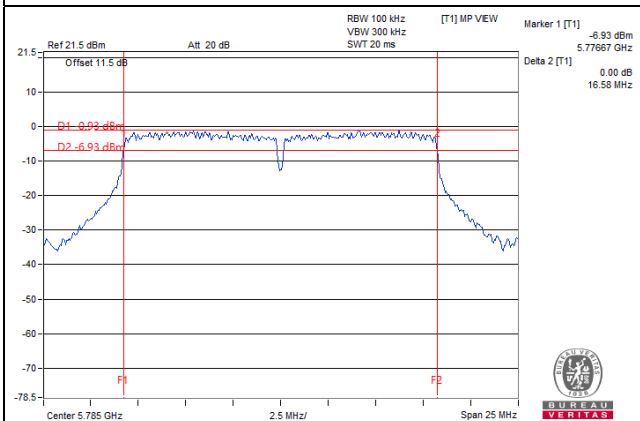
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	36.61	0.5	Pass
159	5795	36.6	0.5	Pass

##### 802.11ac (VHT80)

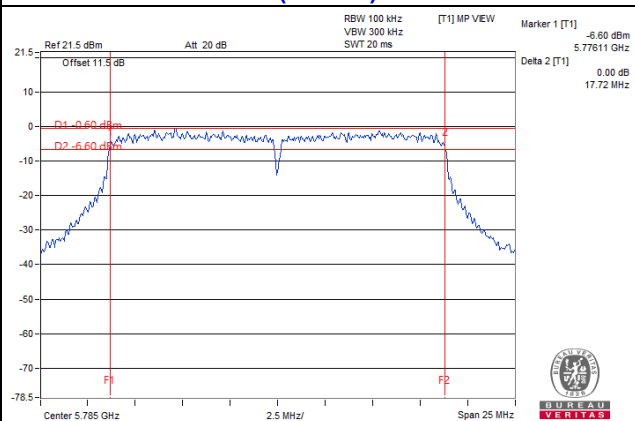
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
155	5775	76.6	0.5	Pass

### Spectrum Plot of Worst Value

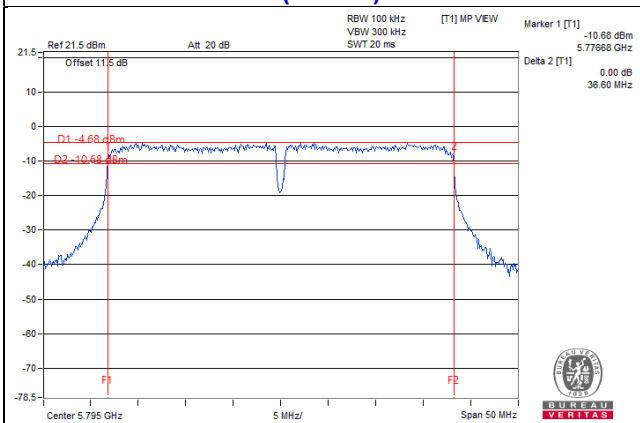
#### 802.11a / CH157



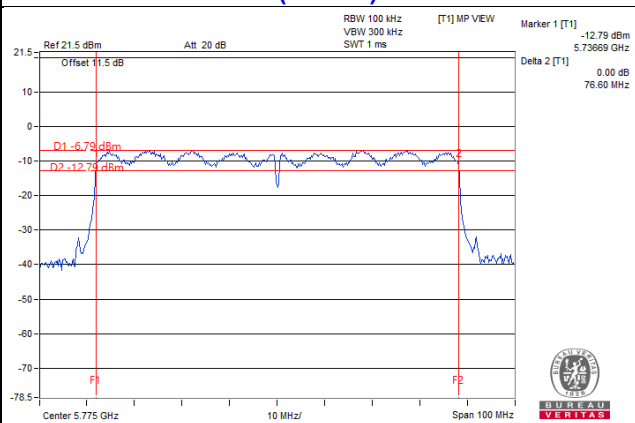
#### 802.11ac (VHT20) / CH157



#### 802.11ac (VHT40) / CH159



#### 802.11ac (VHT80) / CH155



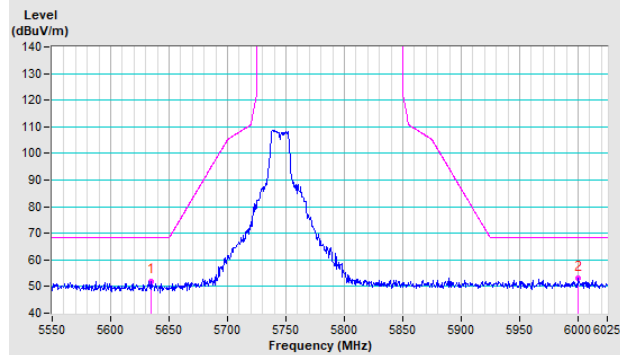
## 5 Pictures of Test Arrangements

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

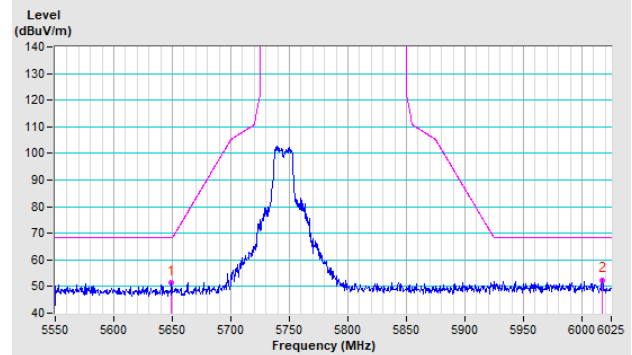
## Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

### 802.11a CH 149 : 5745 MHz

Horizontal

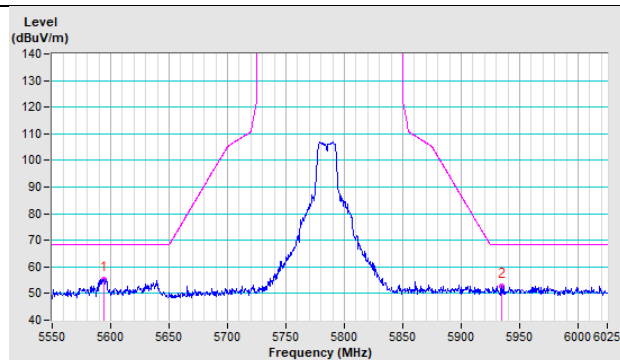


Vertical

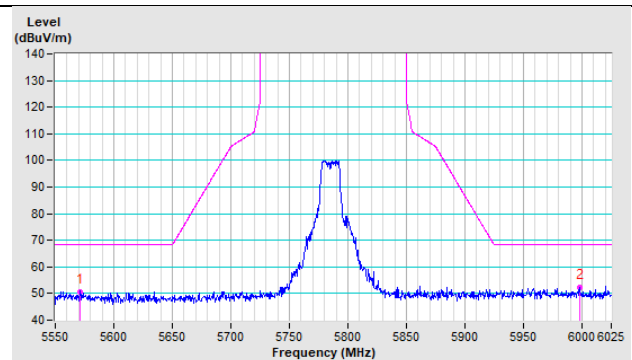


### 802.11a CH 157 : 5785 MHz

Horizontal

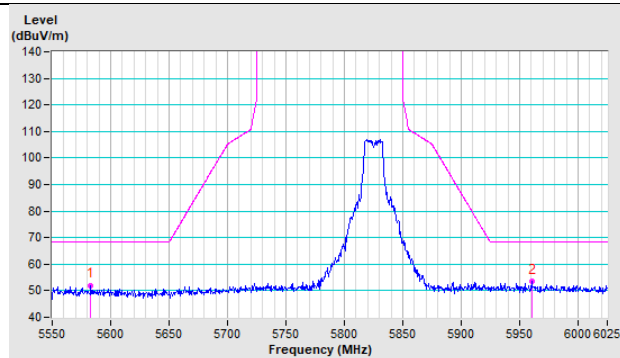


Vertical

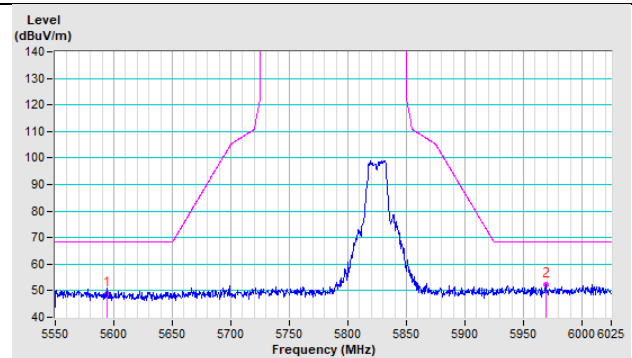


### 802.11a CH 165 : 5825 MHz

Horizontal



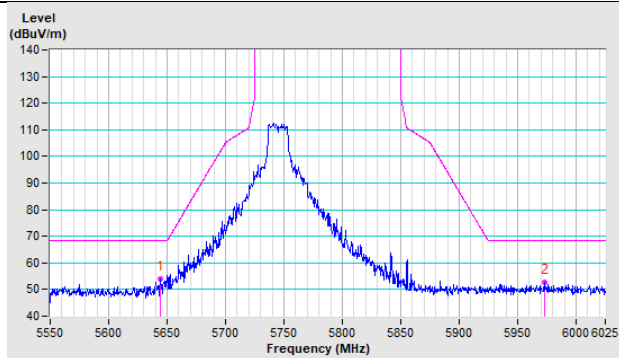
Vertical



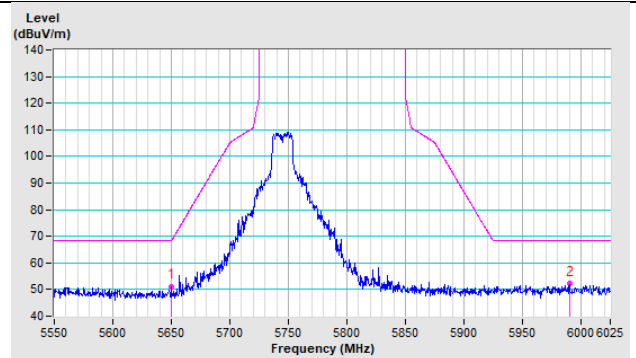


**802.11ac (VHT20) CH 149 : 5745 MHz**

**Horizontal**

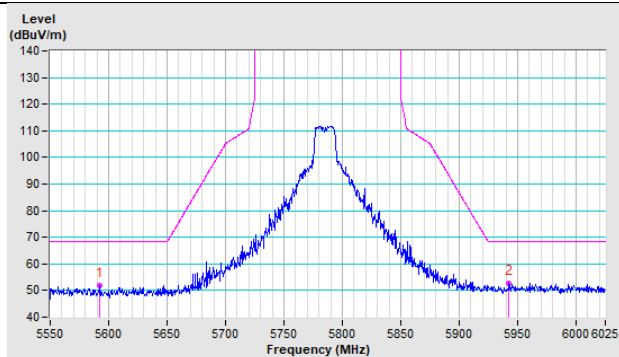


**Vertical**

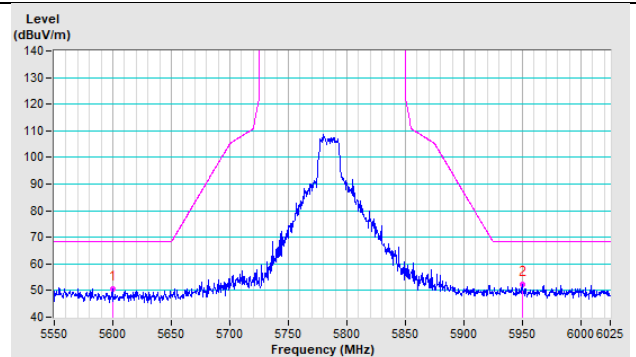


**802.11ac (VHT20) CH 157 : 5785 MHz**

**Horizontal**

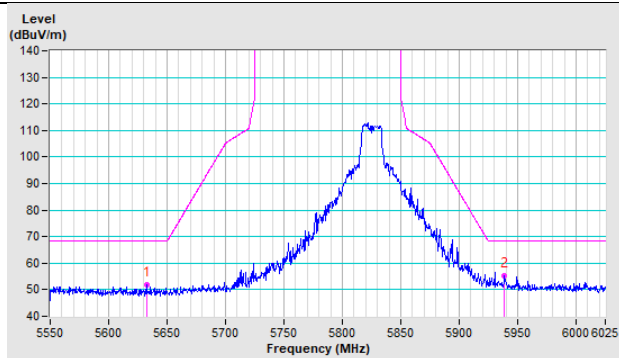


**Vertical**

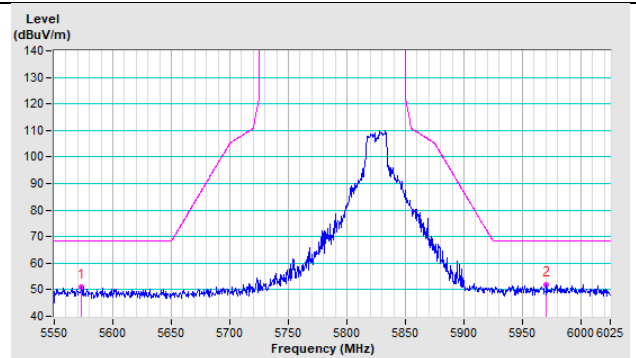


**802.11ac (VHT20) CH 165 : 5825 MHz**

**Horizontal**

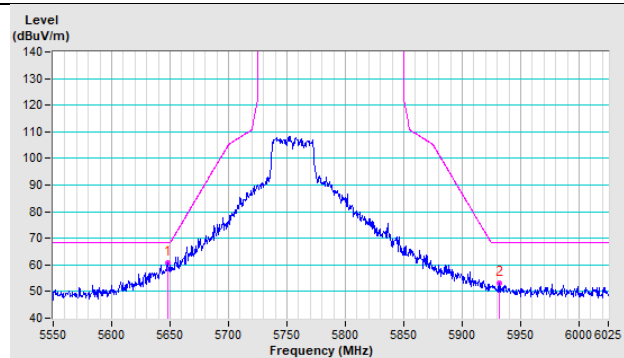


**Vertical**

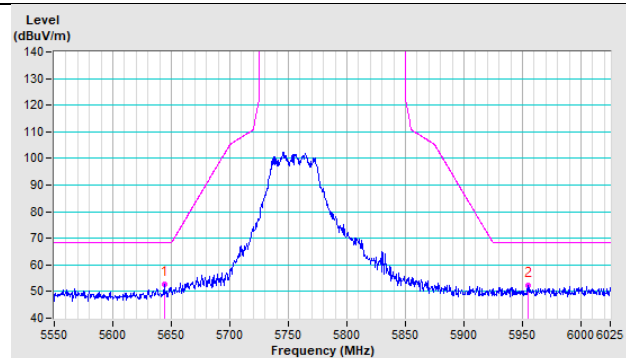


**802.11ac (VHT40) CH 151 : 5755 MHz**

**Horizontal**

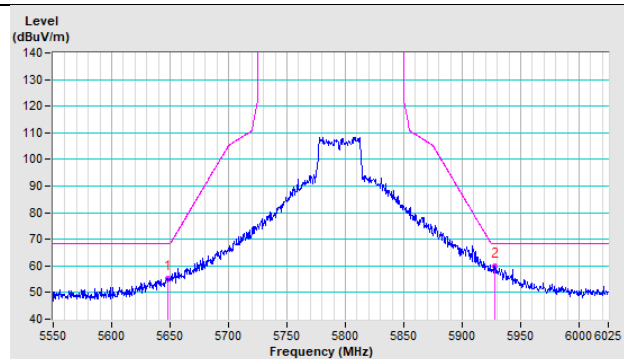


**Vertical**

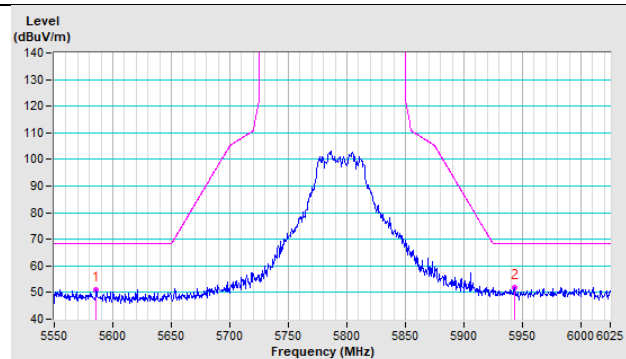


**802.11ac (VHT40) CH 159 : 5795 MHz**

**Horizontal**

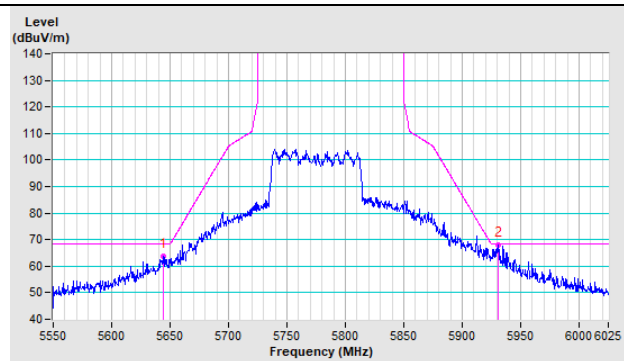


**Vertical**

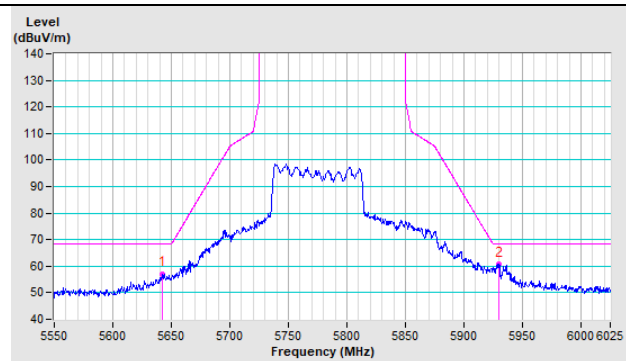


**802.11ac (VHT80) CH 155 : 5775 MHz**

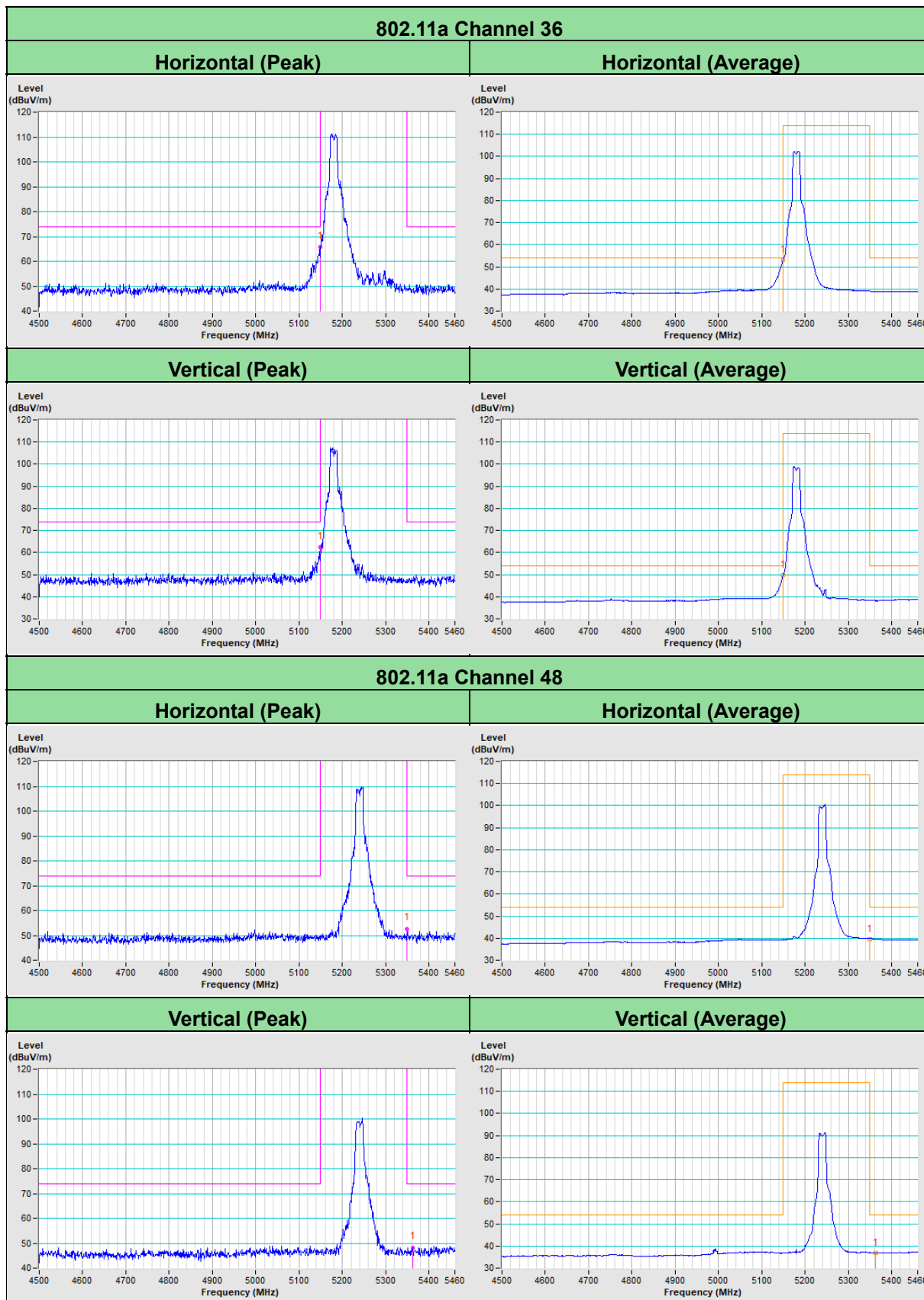
**Horizontal**



**Vertical**

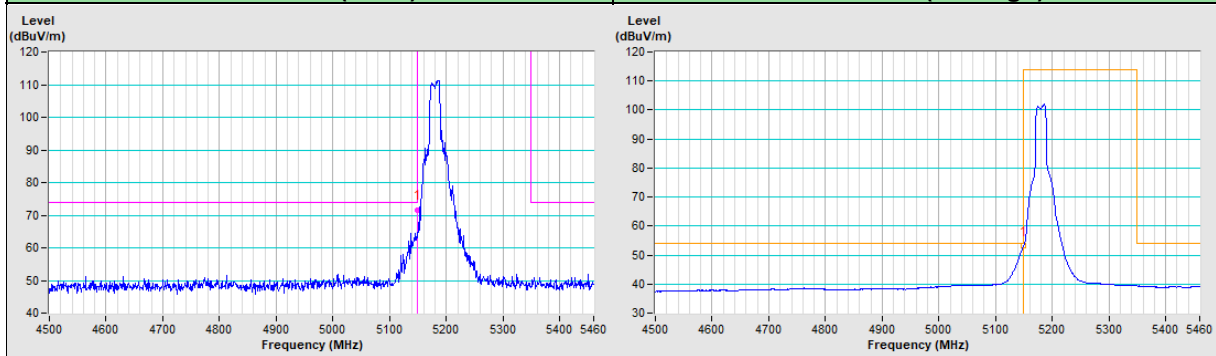


### Annex B - Band-Edge Measurement (For U-NII-1 band)

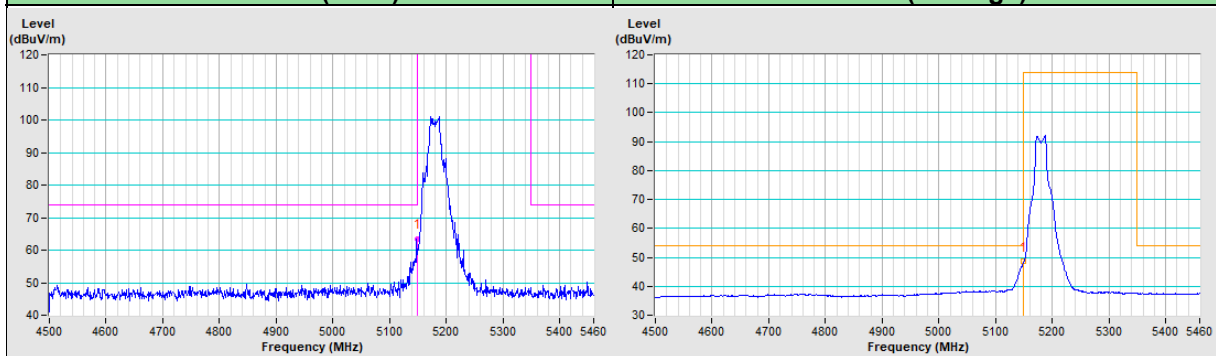


**802.11ac (VHT20) Channel 36**

<b>Horizontal (Peak)</b>	<b>Horizontal (Average)</b>
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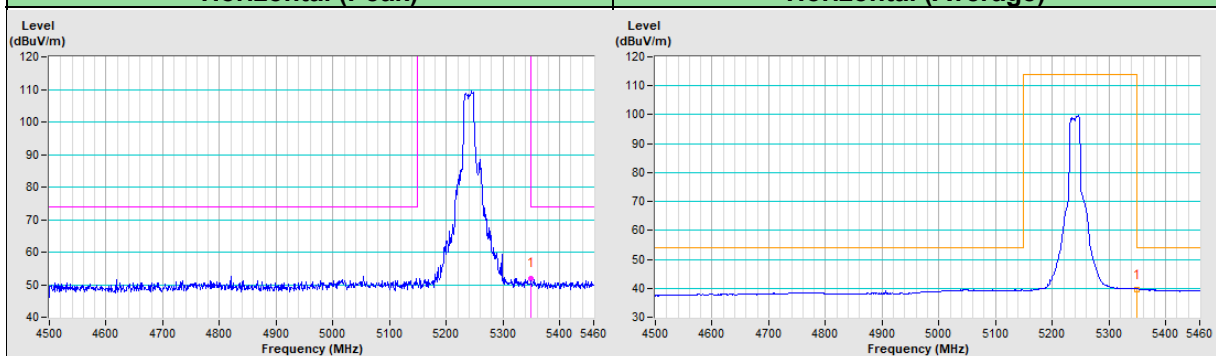


<b>Vertical (Peak)</b>	<b>Vertical (Average)</b>
------------------------	---------------------------

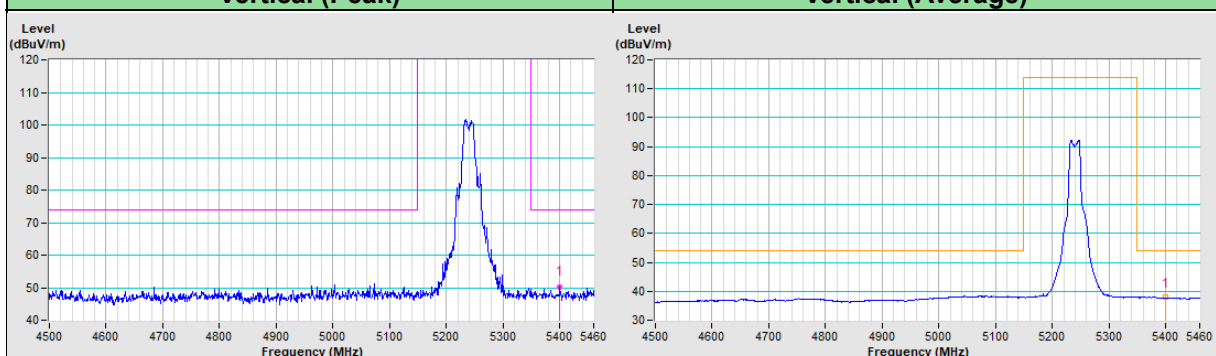


**802.11ac (VHT20) Channel 48**

<b>Horizontal (Peak)</b>	<b>Horizontal (Average)</b>
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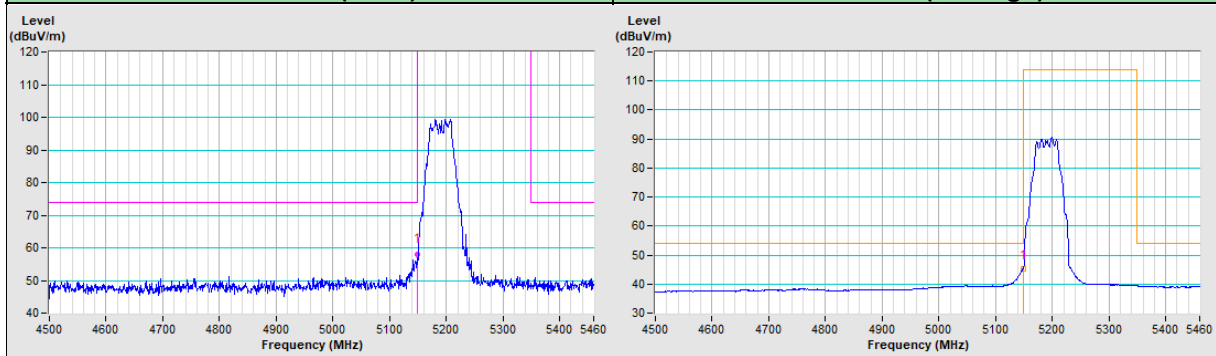


<b>Vertical (Peak)</b>	<b>Vertical (Average)</b>
------------------------	---------------------------

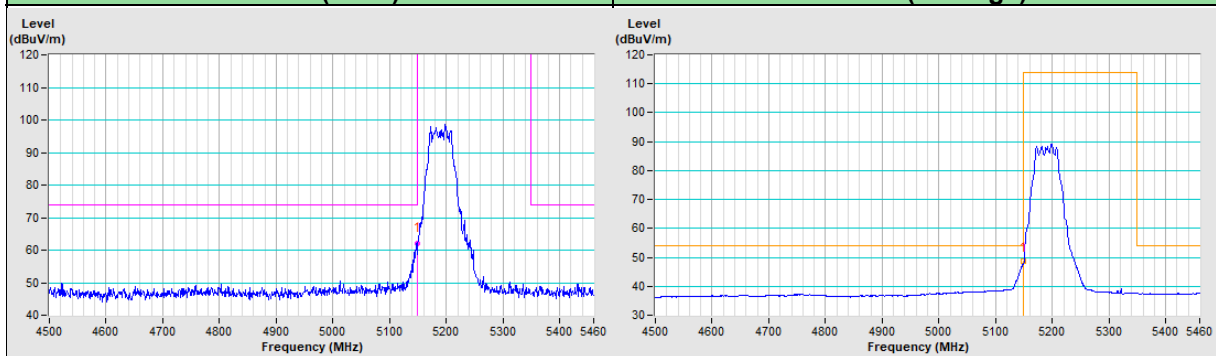


### 802.11ac (VHT40) Channel 38

Horizontal (Peak)	Horizontal (Average)
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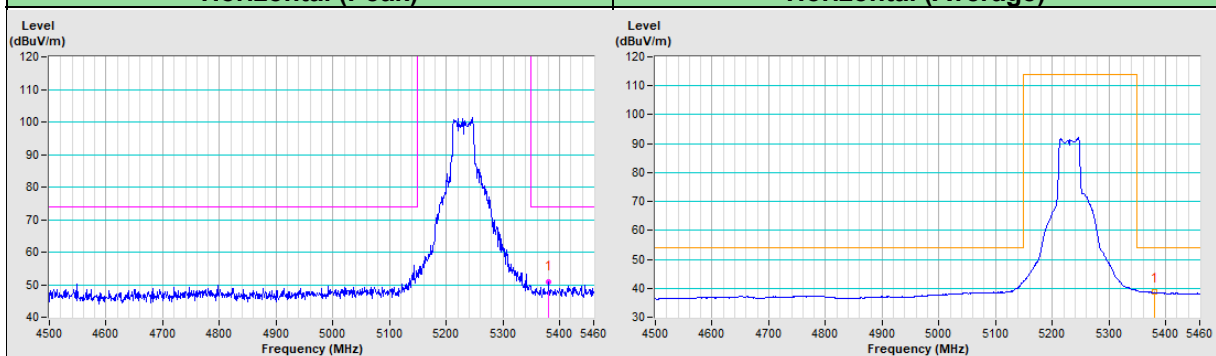


Vertical (Peak)	Vertical (Average)
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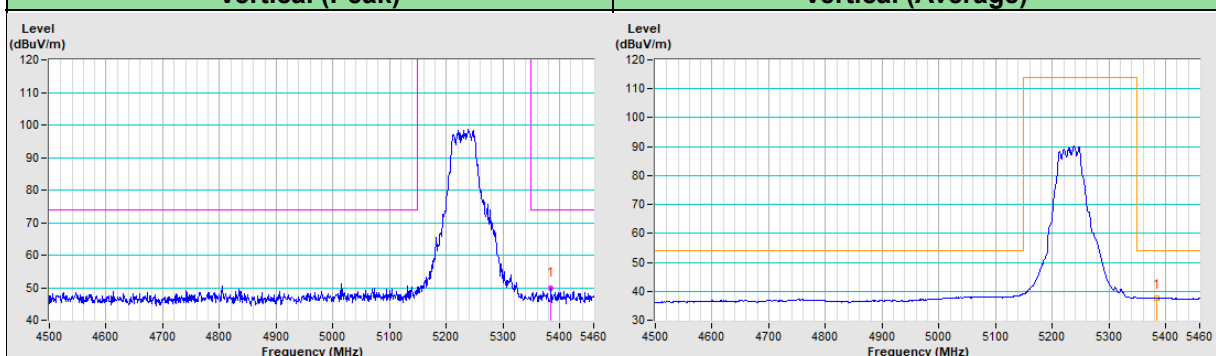


### 802.11ac (VHT40) Channel 46

Horizontal (Peak)	Horizontal (Average)
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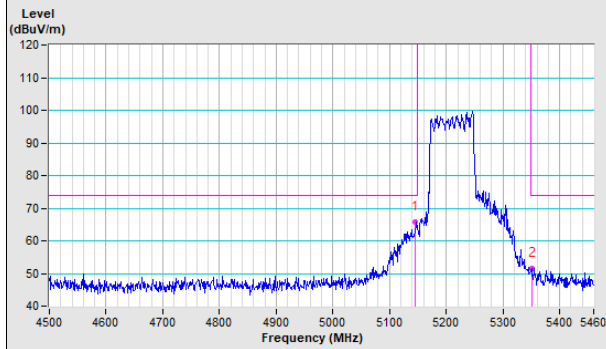


Vertical (Peak)	Vertical (Average)
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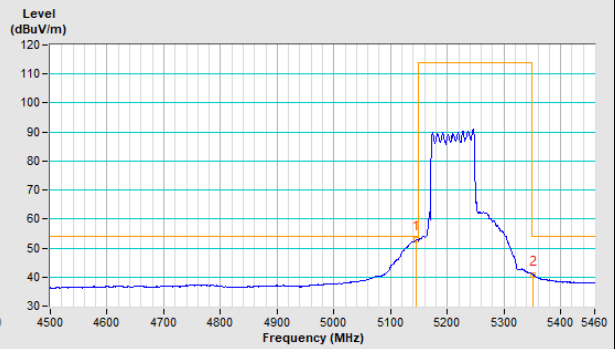


### 802.11ac (VHT80) Channel 42

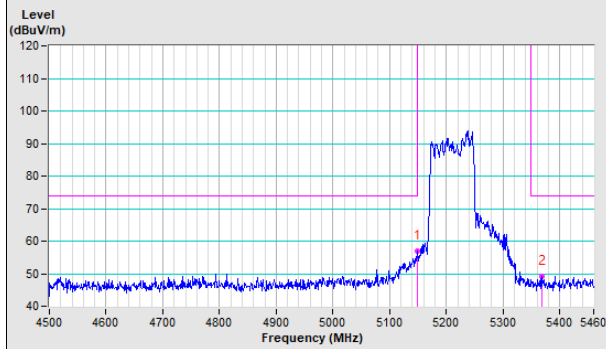
#### Horizontal (Peak)



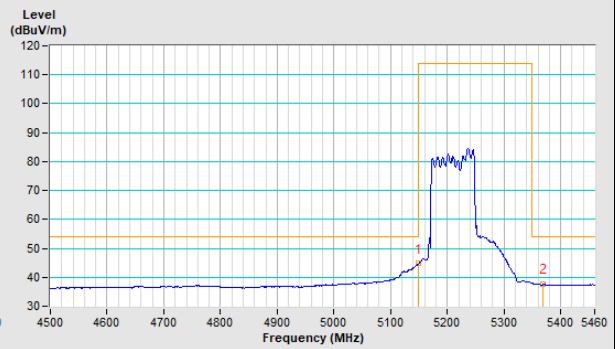
#### Horizontal (Average)



#### Vertical (Peak)



#### Vertical (Average)



## Appendix – Information of the Testing Laboratories

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

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

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