

## Partial FCC Test Report

**Report No.:** RF200605C03-3

**FCC ID:** O57AX200NGW

**Test Model:** AX200NGW

**Received Date:** Jun. 05, 2020

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



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### Release Control Record

Issue No.	Description	Date Issued
RF200605C03-3	Original Release	Aug. 07, 2020



## 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 -17.97 dB at 0.38808 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 -6.2 dB at 11000.00 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Refer to Note
15.407(a)(1/2/3)	Peak Power Spectral Density	N/A	Refer to Note
15.407(e)	6 dB Bandwidth	N/A	Refer to Note
15.407(g)	Frequency Stability	N/A	Refer to Note
15.203	Antenna Requirement	N/A	No antenna connector is used.

Note:

- For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.
- This report is a partial report, only test item of Conducted Emission, Radiated Emissions and Maximum Peak Output Power were performed for this report. Other testing data please refer to Intel report no.: 181210-03.TR01, 181210-03.TR02, and 181210-03.TR03 for module (Brand: Intel® Wi-Fi 6 AX200 , Model: AX200NGW).
- 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	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

## 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	WLAN and BT , 2x2 Pcle M.2 2230 adapter card
<b>Brand</b>	Intel® Wi-Fi 6 AX200
<b>Test Model</b>	AX200NGW
<b>Status of EUT</b>	Engineering Sample
<b>Power Supply Rating</b>	3.3Vdc form host equipment
<b>Modulation Type</b>	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
<b>Modulation Technology</b>	OFDM, OFDMA
<b>Transfer Rate</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 300.0 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2402.0 Mbps
<b>Operating Frequency</b>	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
<b>Number of Channel</b>	5180 ~ 5320 MHz: 8 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 4 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 2 for 802.11ac (VHT80), 802.11ax (HE80) 1 for 802.11ac (VHT160), 802.11ax (HE160) 5500 ~ 5720 MHz: 12 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 6 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 3 for 802.11ac (VHT80), 802.11ax (HE80) 1 for 802.11ac (VHT160), 802.11ax (HE160) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 2 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 1 for 802.11ac (VHT80), 802.11ax (HE80)
<b>Output Power</b>	35.237 mW for 5180 ~ 5240 MHz 35.237 mW for 5260 ~ 5320 MHz 35.237 mW for 5500 ~ 5720 MHz 35.318 mW for 5745 ~ 5825 MHz
<b>Antenna Type</b>	Refer to Note
<b>Antenna Connector</b>	N/A
<b>Accessory Device</b>	N/A
<b>Data Cable Supplied</b>	N/A

**Note:**

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

Modulation Mode	Tx Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ax (HE20)	2TX
802.11ax (HE40)	2TX
802.11ac (VHT80)	2TX
802.11ax (HE80)	2TX
802.11ac (VHT160)	2TX
802.11ax (HE160)	2TX

2. \* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40 / VHT80 / VHT160 and 802.11ax mode for HE20 / HE40 / HE80 / HE160, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)
3. The EUT is authorized for use in specific End-product. Please refer to below for more details.

Product	Brand	Model
Notebook Computer	Lenovo	ThinkBook 15 G2 ARE*****(*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)

4. The following accessories were for the End-product.

Product	Brand	Model	Description
Adapter	Lenovo	ADLX65YCC3A	I/P: 100-240 Vac, 50-60 Hz, 1.8 A O/P: 20 Vdc, 3.25 A
Battery	Lenovo	L19C3PDA	11.52 Vdc, 3907 mAh, 45 Wh

5. The antenna information is listed as below. Only the antenna which has the maximum gain was chosen as a representative for the final test.

WLAN Antenna							
Ant. Type	Manufacturer	Parts Number		Antenna Gain (dBi)			
				BT/WLAN 2.4 GHz	WLAN 5.15~5.35 GHz	WLAN 5.47~5.725 GHz	WLAN 5.725~5.85 GHz
PIFA	High-Tek Electronics Co., Ltd	Main	0ACCN020001N / DC33002G300	-2.47	1.75	-2.57	-4.41
		Aux.	0ACCN020002N / DC33002G310	-2.19	-4.51	-2.84	-2.86
PIFA	MAG.LAYERS Scientific-technics co, LTD	Main	PCA-3010-25GC7-A1 / DC33002G600	-0.02	2.02	1.04	1.99
		Aux.	PCA-5010-25GC7-A1 / DC33002G610	1.12	-1.44	-2.19	-2.19

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

### 3.2 Description of Test Modes

#### For 5180 ~ 5320 MHz

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

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

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	54	5270
46	5230	62	5310

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	58	5290

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency (MHz)
50	5250

### For 5500 ~ 5720 MHz

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

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

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

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

3 channels are provided for 802.11ac (VHT80):

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

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

Channel	Frequency (MHz)
114	5570

**For 5745 ~ 5825 MHz:**

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

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

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

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

Channel	Frequency (MHz)
155	5775

### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE $<$ 1G	PLC	Power	
-	√	√	√	√	-

Where **RE $\geq$ 1G**: Radiated Emission above 1 GHz      **RE $<$ 1G**: Radiated Emission below 1 GHz  
**PLC**: Power Line Conducted Emission      **Power**: Maximum Output Power Measurement

#### **Radiated Emission Test (Above 1 GHz):**

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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5320	802.11a	36 to 64	36, 40, 48, 52, 56, 64	OFDM	BPSK	6.0
		802.11ax (HE20)	36 to 64	36, 40, 48, 52, 56, 64	OFDMA	BPSK	MCS0
		802.11ax (HE40)	38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
		802.11ax (HE80)	42 to 58	42, 58	OFDMA	BPSK	MCS0
		802.11ax (HE160)	50	50	OFDMA	BPSK	MCS0
	5500-5720	802.11a	100 to 144	100, 120, 140, 144	OFDM	BPSK	6.0
		802.11ax (HE20)	100 to 144	100, 120, 140, 144	OFDMA	BPSK	MCS0
		802.11ax (HE40)	102 to 134	102, 118, 134, 142	OFDMA	BPSK	MCS0
		802.11ax (HE80)	106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
		802.11ax (HE160)	114	114	OFDMA	BPSK	MCS0
	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
		802.11ax (HE20)	149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
		802.11ax (HE40)	151 to 159	151, 159	OFDMA	BPSK	MCS0
		802.11ax (HE80)	155	155	OFDMA	BPSK	MCS0

#### **Radiated Emission Test (Below 1 GHz):**

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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5720	802.11ax (HE20)	149 to 165	157	OFDMA	BPSK	MCS0

#### **Power Line Conducted Emission Test:**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5720	802.11ax (HE20)	149 to 165	157	OFDMA	BPSK	MCS0

**Maximum Output Power Measurement:**

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

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5320	802.11a	36 to 64	36, 40, 48, 52, 56, 64	OFDM	BPSK	6.0
		802.11n (HT20)	36 to 64	36, 40, 48, 52, 56, 64	OFDM	BPSK	6.5
		802.11n (HT40)	38 to 62	38, 46, 54, 62	OFDM	BPSK	13.5
		802.11ac (VHT80)	42 to 58	42, 58	OFDM	BPSK	29.3
		802.11ac (HE160)	50	50	OFDM	BPSK	58.5
		802.11ax (HE20)	36 to 64	36, 40, 48, 52, 56, 64	OFDM	BPSK	MCS0
		802.11ax (HE40)	38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
		802.11ax (HE80)	42 to 58	42, 58	OFDMA	BPSK	MCS0
		802.11ax (HE160)	50	50	OFDMA	BPSK	MCS0
-	5500-5720	802.11a	100 to 144	100, 120, 140, 144	OFDM	BPSK	6.0
		802.11n (HT20)	100 to 144	100, 120, 140, 144	OFDM	BPSK	6.5
		802.11n (HT40)	102 to 142	102, 118, 134, 142	OFDM	BPSK	13.5
		802.11ac (VHT80)	106 to 138	106, 122, 138	OFDM	BPSK	29.3
		802.11ac (VHT160)	114	114	OFDM	BPSK	58.5
		802.11ax (HE20)	100 to 144	100, 120, 140, 144	OFDM	BPSK	MCS0
		802.11ax (HE40)	102 to 142	102, 118, 134, 142	OFDM	BPSK	MCS0
		802.11ax (HE80)	106 to 138	106, 122, 138	OFDM	BPSK	MCS0
		802.11ax (HE160)	114	114	OFDMA	BPSK	MCS0
	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	6.5
		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	13.5
		802.11ac (VHT80)	155	155	OFDM	BPSK	29.3
		802.11ax (HE20)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
		802.11ax (HE40)	151 to 159	151, 159	OFDMA	BPSK	MCS0
		802.11ax (HE80)	155	155	OFDMA	BPSK	MCS0

**Test Condition:**

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	23 deg. C, 66 % RH	120 Vac, 60 Hz	Titan Hsu
RE<1G	23 deg. C, 66 % RH	120 Vac, 60 Hz	Titan Hsu
PLC	23 deg. C, 67 % RH	120 Vac, 60 Hz	Adair Peng
Power	25 deg. C, 65 % RH	120 Vac, 60 Hz	Titan Hsu

### 3.3 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.

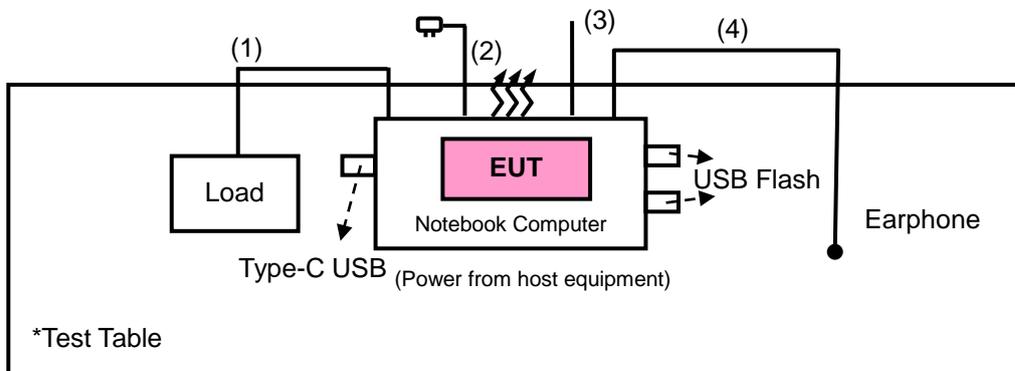
No.	Product	Brand	Model No.	Serial No.	FCC ID
A	Type-C USB	SanDisk	N/A	N/A	N/A
B	USB Flash	HP	v250W	03	N/A
C	USB Flash	HP	v250W	05	N/A
D	Earphone	Apple	N/A	N/A	N/A
E	Notebook	Lenovo	ThinkBook 15 G2 ARE*****(*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)	N/A	N/A
F	Adapter	Lenovo	ADLX65YCC3A	N/A	N/A

Note:

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

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Load Cable	1	1.5	N	0	--
2.	Adapter Cable	1	2.5	Y	0	Accessory of End-product
3.	HDMI Cable	1	1.5	Y	0	--
4.	Earphone Cable	1	1.2	N	0	--

#### 3.3.1 Configuration of System under Test



### **3.4 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 Procedures 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 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

Limits of Unwanted Emission Out of the Restricted Bands

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<input checked="" type="checkbox"/> 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>
	<input type="checkbox"/> 15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

<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:

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

## 4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
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. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	9120D	209	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Loop Antenna EMCI	EM-6879	269	Sep. 16, 2019	Sep. 15, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 20, 2019	Aug. 19, 2020
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. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM- SM-8000	Cable-CH3-03 (309224+170907)	Aug. 20, 2019	Aug. 19, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 05, 2019	Sep. 04, 2020
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55 190004/MY551900 07/MY55210005	Jul. 13, 2020	Jul. 12, 2021

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.

#### 4.1.3 Test Procedures

##### **For Radiated Emission below 30 MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 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 9 kHz at frequency below 30 MHz.

##### **For Radiated Emission above 30 MHz**

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

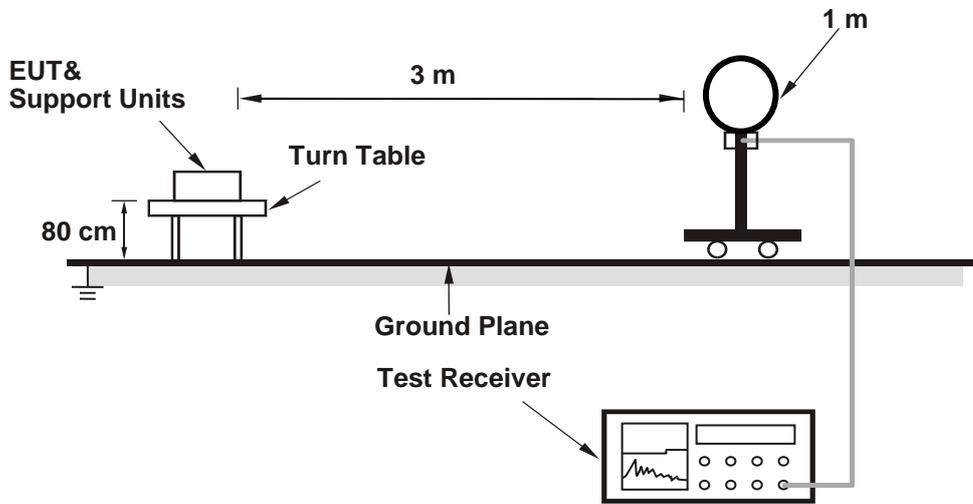
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98 %) or 10 Hz (Duty cycle  $\geq 98$  %) for Average detection (AV) at frequency above 1 GHz.  
(11a: RBW = 1 MHz, VBW = 10 Hz ; 11ax (HE20): RBW = 1 MHz, VBW = 10 Hz ;  
11ax (HE40): RBW = 1 MHz, VBW = 10 Hz ; 11ax (HE80): RBW = 1 MHz, VBW = 10 Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

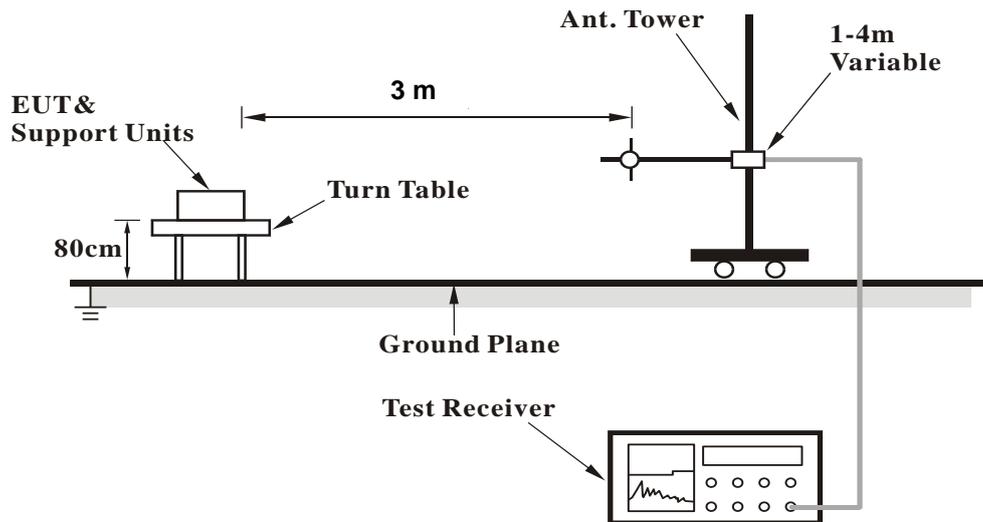
No deviation.

4.1.5 Test Setup

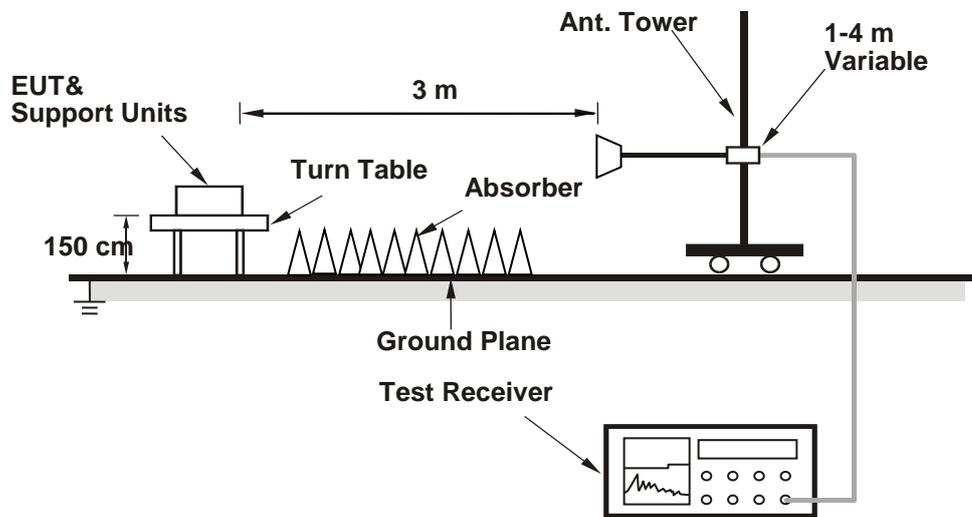
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



**<Radiated Emission above 1 GHz>**



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 a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results  
**Above 1 GHz Data :**  
**802.11a**

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	56.7 PK	74.0	-17.3	3.74 H	0	53.2	3.5
2	5150.00	43.1 AV	54.0	-10.9	3.74 H	0	39.6	3.5
3	*5180.00	107.7 PK			3.74 H	0	68.4	39.3
4	*5180.00	96.8 AV			3.74 H	0	57.5	39.3
5	#10360.00	59.1 PK	68.2	-9.1	1.75 H	223	42.2	16.9

**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	5150.00	56.5 PK	74.0	-17.5	1.64 V	274	53.0	3.5
2	5150.00	42.5 AV	54.0	-11.5	1.64 V	274	39.0	3.5
3	*5180.00	105.3 PK			1.64 V	274	66.0	39.3
4	*5180.00	94.3 AV			1.64 V	274	55.0	39.3
5	#10360.00	58.8 PK	68.2	-9.4	1.93 V	309	41.9	16.9

**REMARKS:**

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5200.00	108.2 PK			3.80 H	357	68.9	39.3
2	*5200.00	97.2 AV			3.80 H	357	57.9	39.3
3	#10400.00	59.6 PK	68.2	-8.6	1.80 H	209	42.5	17.1

**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	*5200.00	105.9 PK			1.75 V	280	66.6	39.3
2	*5200.00	94.9 AV			1.75 V	280	55.6	39.3
3	#10400.00	59.3 PK	68.2	-8.9	2.03 V	315	42.2	17.1

**REMARKS:**

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5240.00	107.4 PK			3.72 H	3	68.3	39.1
2	*5240.00	96.6 AV			3.72 H	3	57.5	39.1
3	5350.00	55.0 PK	74.0	-19.0	3.72 H	3	51.4	3.6
4	5350.00	41.6 AV	54.0	-12.4	3.72 H	3	38.0	3.6
5	#10480.00	59.9 PK	68.2	-8.3	1.72 H	205	42.3	17.6

**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	*5240.00	105.1 PK			1.63 V	280	66.0	39.1
2	*5240.00	94.3 AV			1.63 V	280	55.2	39.1
3	5350.00	54.6 PK	74.0	-19.4	1.63 V	280	51.0	3.6
4	5350.00	41.0 AV	54.0	-13.0	1.63 V	280	37.4	3.6
5	#10480.00	59.6 PK	68.2	-8.6	1.90 V	300	42.0	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.

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	55.5 PK	74.0	-18.5	3.44 H	358	52.0	3.5
2	5150.00	41.7 AV	54.0	-12.3	3.44 H	358	38.2	3.5
3	*5260.00	107.1 PK			3.44 H	358	68.1	39.0
4	*5260.00	96.5 AV			3.44 H	358	57.5	39.0
5	#10520.00	60.1 PK	68.2	-8.1	1.81 H	220	42.5	17.6

**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	5150.00	55.1 PK	74.0	-18.9	1.63 V	279	51.6	3.5
2	5150.00	41.5 AV	54.0	-12.5	1.63 V	279	38.0	3.5
3	*5260.00	105.7 PK			1.63 V	279	66.7	39.0
4	*5260.00	95.1 AV			1.63 V	279	56.1	39.0
5	#10520.00	59.8 PK	68.2	-8.4	1.91 V	299	42.2	17.6

**REMARKS:**

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

CHANNEL	TX Channel 56	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5280.00	107.4 PK			3.57 H	359	68.3	39.1
2	*5280.00	96.8 AV			3.57 H	359	57.7	39.1
3	#10560.00	60.0 PK	68.2	-8.2	1.88 H	223	42.4	17.6

**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	*5280.00	106.0 PK			1.75 V	263	66.9	39.1
2	*5280.00	95.2 AV			1.75 V	263	56.1	39.1
3	#10560.00	59.7 PK	68.2	-8.5	1.88 V	300	42.1	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.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5320.00	107.7 PK			3.61 H	1	68.5	39.2
2	*5320.00	97.2 AV			3.61 H	1	58.0	39.2
3	5350.00	55.9 PK	74.0	-18.1	3.61 H	1	52.3	3.6
4	5350.00	42.1 AV	54.0	-11.9	3.61 H	1	38.5	3.6
5	10640.00	60.3 PK	74.0	-13.7	1.89 H	209	42.7	17.6
6	10640.00	46.6 AV	54.0	-7.4	1.89 H	209	29.0	17.6

**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	*5320.00	106.3 PK			1.71 V	266	67.1	39.2
2	*5320.00	95.9 AV			1.71 V	266	56.7	39.2
3	5350.00	55.6 PK	74.0	-18.4	1.71 V	266	52.0	3.6
4	5350.00	41.8 AV	54.0	-12.2	1.71 V	266	38.2	3.6
5	10640.00	60.1 PK	74.0	-13.9	1.91 V	305	42.5	17.6
6	10640.00	46.4 AV	54.0	-7.6	1.91 V	305	28.8	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.

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5460.00	55.8 PK	74.0	-18.2	3.17 H	5	52.0	3.8
2	5460.00	42.1 AV	54.0	-11.9	3.17 H	5	38.3	3.8
3	#5470.00	55.8 PK	68.2	-12.4	3.17 H	5	52.0	3.8
4	*5500.00	106.7 PK			3.17 H	5	67.0	39.7
5	*5500.00	96.1 AV			3.17 H	5	56.4	39.7
6	11000.00	62.0 PK	74.0	-12.0	1.79 H	220	43.3	18.7
7	11000.00	47.7 AV	54.0	-6.3	1.79 H	220	29.0	18.7

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	5460.00	55.3 PK	74.0	-18.7	2.80 V	343	51.5	3.8
2	5460.00	41.6 AV	54.0	-12.4	2.80 V	343	37.8	3.8
3	#5470.00	55.1 PK	68.2	-13.1	2.80 V	343	51.3	3.8
4	*5500.00	106.2 PK			2.80 V	343	66.5	39.7
5	*5500.00	95.5 AV			2.80 V	343	55.8	39.7
6	11000.00	61.9 PK	74.0	-12.1	1.95 V	323	43.2	18.7
7	11000.00	47.5 AV	54.0	-6.5	1.95 V	323	28.8	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.

CHANNEL	TX Channel 120	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5600.00	106.6 PK			3.33 H	10	66.8	39.8
2	*5600.00	96.0 AV			3.33 H	10	56.2	39.8
3	11200.00	61.5 PK	74.0	-12.5	1.85 H	229	43.0	18.5
4	11200.00	47.4 AV	54.0	-6.6	1.85 H	229	28.9	18.5

**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	*5600.00	106.1 PK			2.83 V	339	66.3	39.8
2	*5600.00	95.5 AV			2.83 V	339	55.7	39.8
3	11200.00	61.3 PK	74.0	-12.7	1.93 V	325	42.8	18.5
4	11200.00	47.1 AV	54.0	-6.9	1.93 V	325	28.6	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.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5700.00	106.7 PK			3.87 H	8	66.9	39.8
2	*5700.00	95.9 AV			3.87 H	8	56.1	39.8
3	#5725.00	55.3 PK	68.2	-12.9	3.87 H	8	51.1	4.2
4	11400.00	60.8 PK	74.0	-13.2	1.73 H	205	42.7	18.1
5	11400.00	46.9 AV	54.0	-7.1	1.73 H	205	28.8	18.1

**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	*5700.00	106.2 PK			2.71 V	349	66.4	39.8
2	*5700.00	95.3 AV			2.71 V	349	55.5	39.8
3	#5725.00	54.4 PK	68.2	-13.8	2.71 V	349	50.2	4.2
4	11400.00	60.3 PK	74.0	-13.7	1.86 V	299	42.2	18.1
5	11400.00	46.4 AV	54.0	-7.6	1.86 V	299	28.3	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.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	55.6 PK	74.0	-18.4	3.85 H	10	51.8	3.8
2	5460.00	41.3 AV	54.0	-12.7	3.85 H	10	37.5	3.8
3	#5470.00	55.8 PK	68.2	-12.4	3.85 H	10	52.0	3.8
4	*5720.00	107.1 PK			3.85 H	10	67.1	40.0
5	*5720.00	96.5 AV			3.85 H	10	56.5	40.0
6	#5850.00	57.3 PK	68.2	-10.9	3.85 H	10	52.6	4.7
7	11440.00	61.0 PK	74.0	-13.0	1.81 H	213	42.9	18.1
8	11440.00	47.2 AV	54.0	-6.8	1.81 H	213	29.1	18.1

**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	5460.00	55.1 PK	74.0	-18.9	2.81 V	341	51.3	3.8
2	5460.00	41.3 AV	54.0	-12.7	2.81 V	341	37.5	3.8
3	#5470.00	55.5 PK	68.2	-12.7	2.81 V	341	51.7	3.8
4	*5720.00	106.5 PK			2.81 V	341	66.5	40.0
5	*5720.00	96.0 AV			2.81 V	341	56.0	40.0
6	#5850.00	57.0 PK	68.2	-11.2	2.81 V	341	52.3	4.7
7	11440.00	60.6 PK	74.0	-13.4	1.93 V	323	42.5	18.1
8	11440.00	46.9 AV	54.0	-7.1	1.93 V	323	28.8	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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5745.00	107.3 PK			3.99 H	7	67.3	40.0
2	*5745.00	96.7 AV			3.99 H	7	56.7	40.0
3	11490.00	60.0 PK	74.0	-14.0	2.21 H	193	41.7	18.3
4	11490.00	46.3 AV	54.0	-7.7	2.21 H	193	28.0	18.3

**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	*5745.00	109.7 PK			2.04 V	271	69.7	40.0
2	*5745.00	98.8 AV			2.04 V	271	58.8	40.0
3	11490.00	60.8 PK	74.0	-13.2	1.88 V	256	42.5	18.3
4	11490.00	47.1 AV	54.0	-6.9	1.88 V	256	28.8	18.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. The limit value is defined as per 15.247.

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5785.00	107.9 PK			3.93 H	3	67.7	40.2
2	*5785.00	97.0 AV			3.93 H	3	56.8	40.2
3	11570.00	60.2 PK	74.0	-13.8	2.30 H	199	42.3	17.9
4	11570.00	46.5 AV	54.0	-7.5	2.30 H	199	28.6	17.9

**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	*5785.00	110.1 PK			1.93 V	272	69.9	40.2
2	*5785.00	99.1 AV			1.93 V	272	58.9	40.2
3	11570.00	60.5 PK	74.0	-13.5	1.91 V	246	42.6	17.9
4	11570.00	46.8 AV	54.0	-7.2	1.91 V	246	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 limit value is defined as per 15.247.

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5825.00	107.3 PK			3.87 H	10	66.9	40.4
2	*5825.00	96.7 AV			3.87 H	10	56.3	40.4
3	11650.00	59.9 PK	74.0	-14.1	2.30 H	194	42.0	17.9
4	11650.00	46.1 AV	54.0	-7.9	2.30 H	194	28.2	17.9

**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	*5825.00	109.2 PK			2.06 V	272	68.8	40.4
2	*5825.00	98.3 AV			2.06 V	272	57.9	40.4
3	11650.00	60.1 PK	74.0	-13.9	1.84 V	263	42.2	17.9
4	11650.00	46.5 AV	54.0	-7.5	1.84 V	263	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 limit value is defined as per 15.247.

**802.11ax (HE20)**

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5150.00	55.9 PK	74.0	-18.1	3.74 H	0	52.4	3.5
2	5150.00	42.5 AV	54.0	-11.5	3.74 H	0	39.0	3.5
3	*5180.00	108.4 PK			3.74 H	0	69.1	39.3
4	*5180.00	95.2 AV			3.74 H	0	55.9	39.3
5	#10360.00	59.5 PK	68.2	-8.7	2.09 H	215	42.6	16.9

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	5150.00	55.5 PK	74.0	-18.5	2.49 V	311	52.0	3.5
2	5150.00	42.0 AV	54.0	-12.0	2.49 V	311	38.5	3.5
3	*5180.00	107.9 PK			2.49 V	311	68.6	39.3
4	*5180.00	93.8 AV			2.49 V	311	54.5	39.3
5	#10360.00	59.2 PK	68.2	-9.0	1.88 V	185	42.3	16.9

**REMARKS:**

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5200.00	108.6 PK			3.83 H	20	69.3	39.3
2	*5200.00	95.4 AV			3.83 H	20	56.1	39.3
3	#10400.00	59.6 PK	68.2	-8.6	2.23 H	235	42.5	17.1

**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	*5200.00	107.7 PK			2.55 V	303	68.4	39.3
2	*5200.00	94.4 AV			2.55 V	303	55.1	39.3
3	#10400.00	59.3 PK	68.2	-8.9	1.91 V	193	42.2	17.1

**REMARKS:**

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5240.00	108.1 PK			3.85 H	3	69.0	39.1
2	*5240.00	94.9 AV			3.85 H	3	55.8	39.1
3	5350.00	54.7 PK	74.0	-19.3	3.85 H	3	51.1	3.6
4	5350.00	41.5 AV	54.0	-12.5	3.85 H	3	37.9	3.6
5	#10480.00	60.1 PK	74.0	-13.9	2.19 H	206	42.5	17.6

**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	*5240.00	107.0 PK			2.43 V	309	67.9	39.1
2	*5240.00	93.7 AV			2.43 V	309	54.6	39.1
3	5350.00	53.9 PK	74.0	-20.1	2.43 V	309	50.3	3.6
4	5350.00	41.2 AV	54.0	-12.8	2.43 V	309	37.6	3.6
5	#10480.00	59.8 PK	68.2	-8.4	1.90 V	182	42.2	17.6

**REMARKS:**

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

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	55.0 PK	74.0	-19.0	3.94 H	11	51.5	3.5
2	5150.00	41.5 AV	54.0	-12.5	3.94 H	11	38.0	3.5
3	*5260.00	110.0 PK			3.94 H	11	71.0	39.0
4	*5260.00	96.6 AV			3.94 H	11	57.6	39.0
5	#10520.00	60.1 PK	68.2	-8.1	1.80 H	206	42.5	17.6

**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	5150.00	54.6 PK	74.0	-19.4	2.66 V	303	51.1	3.5
2	5150.00	41.4 AV	54.0	-12.6	2.66 V	303	37.9	3.5
3	*5260.00	108.7 PK			2.66 V	303	69.7	39.0
4	*5260.00	95.3 AV			2.66 V	303	56.3	39.0
5	#10520.00	59.8 PK	68.2	-8.4	1.75 V	183	42.2	17.6

**REMARKS:**

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

CHANNEL	TX Channel 56	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5280.00	110.3 PK			3.85 H	3	71.2	39.1
2	*5280.00	97.0 AV			3.85 H	3	57.9	39.1
3	#10560.00	60.2 PK	68.2	-8.0	1.85 H	216	42.6	17.6

**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	*5280.00	109.1 PK			2.60 V	316	70.0	39.1
2	*5280.00	95.7 AV			2.60 V	316	56.6	39.1
3	#10560.00	59.9 PK	68.2	-8.3	1.79 V	185	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.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5320.00	109.8 PK			3.93 H	12	70.6	39.2
2	*5320.00	96.5 AV			3.93 H	12	57.3	39.2
3	5350.00	54.7 PK	74.0	-19.3	3.93 H	12	51.1	3.6
4	5350.00	41.9 AV	54.0	-12.1	3.93 H	12	38.3	3.6
5	10640.00	59.9 PK	74.0	-14.1	1.91 H	223	42.3	17.6
6	10640.00	46.5 AV	54.0	-7.5	1.91 H	223	28.9	17.6

**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	*5320.00	108.5 PK			2.69 V	299	69.3	39.2
2	*5320.00	95.2 AV			2.69 V	299	56.0	39.2
3	5350.00	54.6 PK	74.0	-19.4	2.69 V	299	51.0	3.6
4	5350.00	41.7 AV	54.0	-12.3	2.69 V	299	38.1	3.6
5	10640.00	60.1 PK	74.0	-13.9	1.81 V	190	42.5	17.6
6	10640.00	46.6 AV	54.0	-7.4	1.81 V	190	29.0	17.6

**REMARKS:**

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.6 PK	74.0	-19.4	1.68 H	140	50.8	3.8
2	5460.00	42.6 AV	54.0	-11.4	1.68 H	140	38.8	3.8
3	#5470.00	54.8 PK	68.2	-13.4	1.68 H	140	51.0	3.8
4	*5500.00	101.4 PK			1.68 H	140	61.7	39.7
5	*5500.00	87.7 AV			1.68 H	140	48.0	39.7
6	11000.00	61.9 PK	74.0	-12.1	1.82 H	223	43.2	18.7
7	11000.00	47.7 AV	54.0	-6.3	1.82 H	223	29.0	18.7

**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	5460.00	54.6 PK	74.0	-19.4	2.13 V	280	50.8	3.8
2	5460.00	42.6 AV	54.0	-11.4	2.13 V	280	38.8	3.8
3	#5470.00	55.0 PK	68.2	-13.2	2.13 V	280	51.2	3.8
4	*5500.00	108.2 PK			2.13 V	280	68.5	39.7
5	*5500.00	96.0 AV			2.13 V	280	56.3	39.7
6	11000.00	61.5 PK	74.0	-12.5	1.99 V	335	42.8	18.7
<b>7</b>	<b>11000.00</b>	<b>47.8 AV</b>	<b>54.0</b>	<b>-6.2</b>	<b>1.99 V</b>	<b>335</b>	<b>29.1</b>	<b>18.7</b>

**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.

CHANNEL	TX Channel 120	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5600.00	100.8 PK			1.01 H	139	61.0	39.8
2	*5600.00	87.9 AV			1.01 H	139	48.1	39.8
3	#5725.00	57.9 PK	68.2	-10.3	1.01 H	139	53.7	4.2
4	11200.00	60.2 PK	74.0	-13.8	1.84 H	228	41.7	18.5
5	11200.00	46.3 AV	54.0	-7.7	1.84 H	228	27.8	18.5

**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	*5600.00	105.4 PK			1.85 V	277	65.6	39.8
2	*5600.00	91.9 AV			1.85 V	277	52.1	39.8
3	#5725.00	55.5 PK	68.2	-12.7	1.85 V	277	51.3	4.2
4	11200.00	61.3 PK	74.0	-12.7	2.02 V	342	42.8	18.5
5	11200.00	47.5 AV	54.0	-6.5	2.02 V	342	29.0	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.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5700.00	104.3 PK			1.48 H	247	64.5	39.8
2	*5700.00	91.2 AV			1.48 H	247	51.4	39.8
3	#5725.00	60.3 PK	68.2	-7.9	1.48 H	247	56.1	4.2
4	11400.00	59.9 PK	74.0	-14.1	1.84 H	222	41.8	18.1
5	11400.00	46.3 AV	54.0	-7.7	1.84 H	222	28.2	18.1

**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	*5700.00	110.6 PK			1.53 V	267	70.8	39.8
2	*5700.00	97.3 AV			1.53 V	267	57.5	39.8
3	#5725.00	59.8 PK	68.2	-8.4	1.53 V	267	55.6	4.2
4	11400.00	59.5 PK	74.0	-14.5	2.30 V	350	41.4	18.1
5	11400.00	46.3 AV	54.0	-7.7	2.30 V	350	28.2	18.1

**REMARKS:**

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.1 PK	74.0	-19.9	1.39 H	246	50.3	3.8
2	5460.00	41.0 AV	54.0	-13.0	1.39 H	246	37.2	3.8
3	#5470.00	54.2 PK	68.2	-14.0	1.39 H	360	50.4	3.8
4	*5720.00	102.5 PK			1.39 H	246	62.5	40.0
5	*5720.00	88.0 AV			1.39 H	246	48.0	40.0
6	#5850.00	55.7 PK	68.2	-12.5	1.39 H	246	51.0	4.7
7	11440.00	59.4 PK	74.0	-14.6	1.87 H	227	41.3	18.1
8	11440.00	45.9 AV	54.0	-8.1	1.87 H	227	27.8	18.1

**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	5460.00	54.9 PK	74.0	-19.1	1.50 V	267	51.1	3.8
2	5460.00	41.1 AV	54.0	-12.9	1.50 V	267	37.3	3.8
3	#5470.00	54.6 PK	68.2	-13.6	1.50 V	267	50.8	3.8
4	*5720.00	108.1 PK			1.50 V	267	68.1	40.0
5	*5720.00	95.0 AV			1.50 V	267	55.0	40.0
6	#5850.00	56.7 PK	68.2	-11.5	1.50 V	267	52.0	4.7
7	11440.00	59.6 PK	74.0	-14.4	2.20 V	346	41.5	18.1
8	11440.00	45.8 AV	54.0	-8.2	2.20 V	346	27.7	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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5745.00	111.5 PK			1.97 H	271	71.5	40.0
2	*5745.00	98.7 AV			1.97 H	271	58.7	40.0
3	11490.00	60.4 PK	74.0	-13.6	2.35 H	200	42.1	18.3
4	11490.00	46.7 AV	54.0	-7.3	2.35 H	200	28.4	18.3

**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	*5745.00	111.8 PK			1.98 V	269	71.8	40.0
2	*5745.00	98.8 AV			1.98 V	269	58.8	40.0
3	11490.00	60.3 PK	74.0	-13.7	1.81 V	253	42.0	18.3
4	11490.00	46.5 AV	54.0	-7.5	1.81 V	253	28.2	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.
6. The limit value is defined as per 15.247.

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5785.00	110.9 PK			1.92 H	271	70.7	40.2
2	*5785.00	98.0 AV			1.92 H	271	57.8	40.2
3	11570.00	59.9 PK	74.0	-14.1	2.31 H	202	42.0	17.9
4	11570.00	46.0 AV	54.0	-8.0	2.31 H	202	28.1	17.9

**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	*5785.00	112.1 PK			2.13 V	273	71.9	40.2
2	*5785.00	99.2 AV			2.13 V	273	59.0	40.2
3	11570.00	60.1 PK	74.0	-13.9	1.89 V	260	42.2	17.9
4	11570.00	46.3 AV	54.0	-7.7	1.89 V	260	28.4	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 limit value is defined as per 15.247.

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5825.00	109.6 PK			2.05 H	271	69.2	40.4
2	*5825.00	96.7 AV			2.05 H	271	56.3	40.4
3	11650.00	59.5 PK	74.0	-14.5	2.09 H	199	41.6	17.9
4	11650.00	46.1 AV	54.0	-7.9	2.09 H	199	28.2	17.9

**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	*5825.00	111.0 PK			2.16 V	273	70.6	40.4
2	*5825.00	98.3 AV			2.16 V	273	57.9	40.4
3	11650.00	59.7 PK	74.0	-14.3	1.86 V	257	41.8	17.9
4	11650.00	45.9 AV	54.0	-8.1	1.86 V	257	28.0	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 limit value is defined as per 15.247.

**802.11ax (HE40)**

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	56.7 PK	74.0	-17.3	3.70 H	1	53.2	3.5
2	5150.00	43.0 AV	54.0	-11.0	3.70 H	1	39.5	3.5
3	*5190.00	105.3 PK			3.70 H	1	66.0	39.3
4	*5190.00	92.5 AV			3.70 H	1	53.2	39.3
5	#10380.00	59.3 PK	68.2	-8.9	1.82 H	203	42.3	17.0

**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	5150.00	56.2 PK	74.0	-17.8	2.61 V	299	52.7	3.5
2	5150.00	42.5 AV	54.0	-11.5	2.61 V	299	39.0	3.5
3	*5190.00	104.5 PK			2.61 V	299	65.2	39.3
4	*5190.00	91.0 AV			2.61 V	299	51.7	39.3
5	#10380.00	59.0 PK	68.2	-9.2	1.93 V	178	42.0	17.0

**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.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5230.00	105.0 PK			3.82 H	357	65.9	39.1
2	*5230.00	92.1 AV			3.82 H	357	53.0	39.1
3	5350.00	54.6 PK	74.0	-19.4	3.82 H	357	51.0	3.6
4	5350.00	41.6 AV	54.0	-12.4	3.82 H	357	38.0	3.6
5	#10460.00	59.8 PK	68.2	-8.4	1.79 H	193	42.4	17.4

**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	*5230.00	104.1 PK			2.55 V	309	65.0	39.1
2	*5230.00	91.3 AV			2.55 V	309	52.2	39.1
3	5350.00	53.7 PK	74.0	-20.3	2.55 V	309	50.1	3.6
4	5350.00	40.9 AV	54.0	-13.1	2.55 V	309	37.3	3.6
5	#10460.00	59.5 PK	68.2	-8.7	1.89 V	187	42.1	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.

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	55.2 PK	74.0	-18.8	3.85 H	2	51.7	3.5
2	5150.00	41.8 AV	54.0	-12.2	3.85 H	2	38.3	3.5
3	*5270.00	107.8 PK			3.85 H	2	68.7	39.1
4	*5270.00	94.7 AV			3.85 H	2	55.6	39.1
5	#10540.00	60.1 PK	68.2	-8.1	1.86 H	212	42.4	17.7

**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	5150.00	55.0 PK	74.0	-19.0	2.53 V	303	51.5	3.5
2	5150.00	41.5 AV	54.0	-12.5	2.53 V	303	38.0	3.5
3	*5270.00	106.6 PK			2.53 V	303	67.5	39.1
4	*5270.00	93.6 AV			2.53 V	303	54.5	39.1
5	#10540.00	60.0 PK	68.2	-8.2	1.79 V	185	42.3	17.7

**REMARKS:**

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

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5310.00	107.7 PK			3.82 H	359	68.5	39.2
2	*5310.00	94.7 AV			3.82 H	359	55.5	39.2
3	5350.00	55.6 PK	74.0	-18.4	3.82 H	359	52.0	3.6
4	5350.00	42.3 AV	54.0	-11.7	3.82 H	359	38.7	3.6
5	10620.00	59.9 PK	74.0	-14.1	1.91 H	199	42.3	17.6
6	10620.00	46.5 AV	54.0	-7.5	1.91 H	199	28.9	17.6

**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	*5310.00	106.2 PK			2.51 V	311	67.0	39.2
2	*5310.00	93.3 AV			2.51 V	311	54.1	39.2
3	5350.00	55.1 PK	74.0	-18.9	2.51 V	311	51.5	3.6
4	5350.00	41.9 AV	54.0	-12.1	2.51 V	311	38.3	3.6
5	10620.00	60.0 PK	74.0	-14.0	1.76 V	184	42.4	17.6
6	10620.00	46.6 AV	54.0	-7.4	1.76 V	184	29.0	17.6

**REMARKS:**

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.6 PK	74.0	-19.4	1.54 H	139	50.8	3.8
2	5460.00	41.4 AV	54.0	-12.6	1.54 H	139	37.6	3.8
3	#5470.00	54.5 PK	68.2	-13.7	1.54 H	139	50.7	3.8
4	*5510.00	98.3 PK			1.54 H	139	58.6	39.7
5	*5510.00	85.1 AV			1.54 H	139	45.4	39.7
6	11020.00	59.9 PK	74.0	-14.1	1.84 H	221	41.4	18.5
7	11020.00	46.5 AV	54.0	-7.5	1.84 H	221	28.0	18.5

**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	5460.00	55.7 PK	74.0	-18.3	1.27 V	257	51.9	3.8
2	5460.00	42.0 AV	54.0	-12.0	1.27 V	257	38.2	3.8
3	#5470.00	59.3 PK	68.2	-8.9	1.27 V	257	55.5	3.8
4	*5510.00	104.2 PK			1.27 V	257	64.5	39.7
5	*5510.00	91.5 AV			1.27 V	257	51.8	39.7
6	11020.00	59.9 PK	74.0	-14.1	2.10 V	345	41.4	18.5
7	11020.00	46.8 AV	54.0	-7.2	2.10 V	345	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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 118	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	#5470.00	54.9 PK	68.2	-13.3	1.01 H	140	51.1	3.8
2	*5590.00	97.2 PK			1.01 H	140	57.5	39.7
3	*5590.00	84.5 AV			1.01 H	140	44.8	39.7
4	#5725.00	54.9 PK	68.2	-13.3	1.01 H	140	50.7	4.2
5	11180.00	59.4 PK	74.0	-14.6	1.84 H	228	41.1	18.3
6	11180.00	46.5 AV	54.0	-7.5	1.84 H	228	28.2	18.3

**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	#5470.00	54.6 PK	68.2	-13.6	1.17 V	256	50.8	3.8
2	*5590.00	105.2 PK			1.17 V	256	65.5	39.7
3	*5590.00	92.4 AV			1.17 V	256	52.7	39.7
4	#5725.00	55.0 PK	68.2	-13.2	1.17 V	256	50.8	4.2
5	11180.00	59.8 PK	74.0	-14.2	2.11 V	350	41.5	18.3
6	11180.00	46.7 AV	54.0	-7.3	2.11 V	350	28.4	18.3

**REMARKS:**

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

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5670.00	98.0 PK			2.49 H	150	58.2	39.8
2	*5670.00	84.8 AV			2.49 H	150	45.0	39.8
3	#5725.00	54.2 PK	68.2	-14.0	1.50 H	149	50.0	4.2
4	11340.00	59.2 PK	74.0	-14.8	1.81 H	225	41.0	18.2
5	11340.00	46.5 AV	54.0	-7.5	1.81 H	225	28.3	18.2

**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	*5670.00	103.0 PK			1.30 V	262	63.2	39.8
2	*5670.00	90.5 AV			1.30 V	262	50.7	39.8
3	#5725.00	55.8 PK	68.2	-12.4	1.30 V	262	51.6	4.2
4	11340.00	59.7 PK	74.0	-14.3	2.15 V	356	41.5	18.2
5	11340.00	46.3 AV	54.0	-7.7	2.15 V	356	28.1	18.2

**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.

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.6 PK	74.0	-19.4	1.01 H	159	50.8	3.8
2	5460.00	41.2 AV	54.0	-12.8	1.01 H	159	37.4	3.8
3	#5470.00	55.2 PK	68.2	-13.0	1.01 H	159	51.4	3.8
4	*5710.00	100.5 PK			1.01 H	159	60.5	40.0
5	*5710.00	87.8 AV			1.01 H	159	47.8	40.0
6	#5850.00	55.7 PK	68.2	-12.5	1.01 H	159	51.0	4.7
7	11420.00	59.1 PK	74.0	-14.9	1.86 H	227	41.1	18.0
8	11420.00	46.3 AV	54.0	-7.7	1.86 H	227	28.3	18.0

**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	5460.00	54.8 PK	74.0	-19.2	1.49 V	270	51.0	3.8
2	5460.00	41.3 AV	54.0	-12.7	1.49 V	270	37.5	3.8
3	#5470.00	55.3 PK	68.2	-12.9	1.49 V	270	51.5	3.8
4	*5710.00	105.0 PK			1.49 V	270	65.0	40.0
5	*5710.00	91.7 AV			1.49 V	270	51.7	40.0
6	#5850.00	56.1 PK	68.2	-12.1	1.49 V	270	51.4	4.7
7	11420.00	59.9 PK	74.0	-14.1	2.15 V	345	41.9	18.0
8	11420.00	46.2 AV	54.0	-7.8	2.15 V	345	28.2	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.

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5755.00	108.7 PK			1.98 H	269	68.7	40.0
2	*5755.00	95.2 AV			1.98 H	269	55.2	40.0
3	11510.00	60.4 PK	74.0	-13.6	2.27 H	189	42.1	18.3
4	11510.00	46.4 AV	54.0	-7.6	2.27 H	189	28.1	18.3

**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	*5755.00	109.5 PK			1.21 V	255	69.5	40.0
2	*5755.00	96.0 AV			1.21 V	255	56.0	40.0
3	11510.00	60.8 PK	74.0	-13.2	1.93 V	260	42.5	18.3
4	11510.00	46.8 AV	54.0	-7.2	1.93 V	260	28.5	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 limit value is defined as per 15.247.

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	*5795.00	107.6 PK			1.80 H	268	67.3	40.3
2	*5795.00	94.8 AV			1.80 H	268	54.5	40.3
3	11590.00	59.8 PK	74.0	-14.2	2.04 H	206	42.0	17.8
4	11590.00	45.9 AV	54.0	-8.1	2.04 H	206	28.1	17.8

**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	*5795.00	108.9 PK			1.37 V	265	68.6	40.3
2	*5795.00	96.0 AV			1.37 V	265	55.7	40.3
3	11590.00	60.1 PK	74.0	-13.9	1.87 V	254	42.3	17.8
4	11590.00	46.1 AV	54.0	-7.9	1.87 V	254	28.3	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 limit value is defined as per 15.247.

**802.11ax (HE80)**

CHANNEL	TX Channel 42	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	56.8 PK	74.0	-17.2	3.53 H	2	53.3	3.5
2	5150.00	43.3 AV	54.0	-10.7	3.53 H	2	39.8	3.5
3	*5210.00	104.0 PK			3.53 H	2	64.8	39.2
4	*5210.00	90.4 AV			3.53 H	2	51.2	39.2
5	5350.00	55.0 PK	74.0	-19.0	3.53 H	2	51.4	3.6
6	5350.00	41.8 AV	54.0	-12.2	3.53 H	2	38.2	3.6
7	#10420.00	59.8 PK	68.2	-8.4	1.95 H	195	42.5	17.3

**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	5150.00	56.2 PK	74.0	-17.8	2.60 V	303	52.7	3.5
2	5150.00	42.8 AV	54.0	-11.2	2.60 V	303	39.3	3.5
3	*5210.00	102.9 PK			2.60 V	303	63.7	39.2
4	*5210.00	89.5 AV			2.60 V	303	50.3	39.2
5	5350.00	54.3 PK	74.0	-19.7	2.60 V	303	50.7	3.6
6	5350.00	41.4 AV	54.0	-12.6	2.60 V	303	37.8	3.6
7	#10420.00	59.5 PK	68.2	-8.7	1.97 V	182	42.2	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.

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5150.00	55.5 PK	74.0	-18.5	3.79 H	6	52.0	3.5
2	5150.00	42.0 AV	54.0	-12.0	3.79 H	6	38.5	3.5
3	*5290.00	105.2 PK			3.79 H	6	66.1	39.1
4	*5290.00	92.3 AV			3.79 H	6	53.2	39.1
5	5350.00	55.9 PK	74.0	-18.1	3.79 H	6	52.3	3.6
6	5350.00	42.4 AV	54.0	-11.6	3.79 H	6	38.8	3.6
7	#10580.00	60.0 PK	68.2	-8.2	1.82 H	197	42.3	17.7

**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	5150.00	55.2 PK	74.0	-18.8	2.47 V	308	51.7	3.5
2	5150.00	41.8 AV	54.0	-12.2	2.47 V	308	38.3	3.5
3	*5290.00	103.8 PK			2.47 V	308	64.7	39.1
4	*5290.00	90.8 AV			2.47 V	308	51.7	39.1
5	5350.00	55.6 PK	74.0	-18.4	2.47 V	308	52.0	3.6
6	5350.00	41.9 AV	54.0	-12.1	2.47 V	308	38.3	3.6
7	#10580.00	59.8 PK	68.2	-8.4	1.89 V	172	42.1	17.7

**REMARKS:**

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	56.0 PK	74.0	-18.0	1.02 H	139	52.2	3.8
2	5460.00	42.1 AV	54.0	-11.9	1.02 H	139	38.3	3.8
3	#5470.00	55.8 PK	68.2	-12.4	1.02 H	139	52.0	3.8
4	*5530.00	98.2 PK			1.39 H	102	58.5	39.7
5	*5530.00	85.2 AV			1.39 H	102	45.5	39.7
6	#5725.00	54.9 PK	68.2	-13.3	1.02 H	139	50.7	4.2
7	11060.00	59.7 PK	74.0	-14.3	1.86 H	227	41.4	18.3
8	11060.00	46.6 AV	54.0	-7.4	1.86 H	227	28.3	18.3

**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	5460.00	56.8 PK	74.0	-17.2	2.03 V	270	53.0	3.8
2	5460.00	44.2 AV	54.0	-9.8	2.03 V	270	40.4	3.8
3	#5470.00	58.4 PK	68.2	-9.8	2.03 V	270	54.6	3.8
4	*5530.00	101.9 PK			2.03 V	270	62.2	39.7
5	*5530.00	89.5 AV			2.03 V	270	49.8	39.7
6	#5725.00	54.6 PK	68.2	-13.6	2.03 V	270	50.4	4.2
7	11060.00	59.0 PK	74.0	-15.0	2.14 V	356	40.7	18.3
8	11060.00	46.5 AV	54.0	-7.5	2.14 V	356	28.2	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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.6 PK	74.0	-19.4	1.51 H	247	50.8	3.8
2	5460.00	40.9 AV	54.0	-13.1	1.51 H	247	37.1	3.8
3	#5470.00	54.9 PK	68.2	-13.3	1.51 H	247	51.1	3.8
4	*5610.00	98.4 PK			1.51 H	247	58.6	39.8
5	*5610.00	84.1 AV			1.51 H	247	44.3	39.8
6	#5725.00	56.0 PK	68.2	-12.2	1.51 H	247	51.8	4.2
7	11220.00	59.4 PK	74.0	-14.6	1.85 H	226	41.0	18.4
8	11220.00	46.8 AV	54.0	-7.2	1.85 H	226	28.4	18.4

**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	5460.00	54.8 PK	74.0	-19.2	2.01 V	270	51.0	3.8
2	5460.00	41.3 AV	54.0	-12.7	2.01 V	270	37.5	3.8
3	#5470.00	54.7 PK	68.2	-13.5	2.01 V	270	50.9	3.8
4	*5610.00	100.0 PK			2.01 V	270	60.2	39.8
5	*5610.00	86.6 AV			2.01 V	270	46.8	39.8
6	#5725.00	55.7 PK	68.2	-12.5	2.01 V	270	51.5	4.2
7	11220.00	59.6 PK	74.0	-14.4	2.16 V	358	41.2	18.4
8	11220.00	46.8 AV	54.0	-7.2	2.16 V	358	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.

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	54.1 PK	74.0	-19.9	1.50 H	247	50.3	3.8
2	5460.00	41.3 AV	54.0	-12.7	1.50 H	247	37.5	3.8
3	#5470.00	54.9 PK	68.2	-13.3	1.50 H	247	51.1	3.8
4	*5690.00	98.2 PK			1.50 H	247	58.4	39.8
5	*5690.00	85.3 AV			1.50 H	247	45.5	39.8
6	#5850.00	56.7 PK	68.2	-11.5	1.50 H	247	52.0	4.7
7	11380.00	60.1 PK	74.0	-13.9	1.85 H	230	42.0	18.1
8	11380.00	46.5 AV	54.0	-7.5	1.85 H	230	28.4	18.1

**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	5460.00	54.8 PK	74.0	-19.2	1.55 V	269	51.0	3.8
2	5460.00	41.3 AV	54.0	-12.7	1.55 V	269	37.5	3.8
3	#5470.00	54.6 PK	68.2	-13.6	1.55 V	269	50.8	3.8
4	*5690.00	105.0 PK			2.69 V	155	65.2	39.8
5	*5690.00	91.5 AV			2.69 V	155	51.7	39.8
6	#5850.00	55.5 PK	68.2	-12.7	1.55 V	269	50.8	4.7
7	11380.00	59.6 PK	74.0	-14.4	2.14 V	354	41.5	18.1
8	11380.00	46.3 AV	54.0	-7.7	2.14 V	354	28.2	18.1

**REMARKS:**

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

CHANNEL	TX Channel 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	#5650.00	54.0 PK	68.2	-14.2	1.85 H	270	50.2	3.8
2	*5775.00	106.1 PK			1.85 H	270	66.0	40.1
3	*5775.00	92.2 AV			1.85 H	270	52.1	40.1
4	#5925.00	56.8 PK	68.2	-11.4	1.85 H	270	52.0	4.8
5	11550.00	60.1 PK	74.0	-13.9	2.20 H	205	42.0	18.1
6	11550.00	46.1 AV	54.0	-7.9	2.20 H	205	28.0	18.1

**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	#5650.00	54.5 PK	68.2	-13.7	1.61 V	272	50.7	3.8
2	*5775.00	107.5 PK			1.61 V	272	67.4	40.1
3	*5775.00	93.5 AV			1.61 V	272	53.4	40.1
4	#5925.00	57.0 PK	68.2	-11.2	1.61 V	272	52.2	4.8
5	11550.00	60.3 PK	74.0	-13.7	1.86 V	253	42.2	18.1
6	11550.00	46.2 AV	54.0	-7.8	1.86 V	253	28.1	18.1

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.
7. The limit value is defined as per 15.247.

**802.11ax (HE160)**

CHANNEL	TX Channel 50	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5150.00	55.7 PK	74.0	-18.3	3.70 H	3	52.2	3.5
2	5150.00	42.6 AV	54.0	-11.4	3.70 H	3	39.1	3.5
3	*5250.00	100.6 PK			3.70 H	3	61.6	39.0
4	*5250.00	87.0 AV			3.70 H	3	48.0	39.0
5	5350.00	56.1 PK	74.0	-17.9	3.70 H	3	52.5	3.6
6	5350.00	43.0 AV	54.0	-11.0	3.70 H	3	39.4	3.6
7	#10500.00	60.1 PK	68.2	-8.1	1.91 H	200	42.4	17.7
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	5150.00	55.4 PK	74.0	-18.6	2.61 V	303	51.9	3.5
2	5150.00	42.2 AV	54.0	-11.8	2.61 V	303	38.7	3.5
3	*5250.00	99.9 PK			2.61 V	303	60.9	39.0
4	*5250.00	86.0 AV			2.61 V	303	47.0	39.0
5	5350.00	55.6 PK	74.0	-18.4	2.61 V	303	52.0	3.6
6	5350.00	42.6 AV	54.0	-11.4	2.61 V	303	39.0	3.6
7	#10500.00	59.8 PK	68.2	-8.4	1.79 V	186	42.1	17.7

**REMARKS:**

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

CHANNEL	TX Channel 114	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**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	5460.00	57.3 PK	74.0	-16.7	3.57 H	28	53.5	3.8
2	5460.00	43.0 AV	54.0	-11.0	3.57 H	28	39.2	3.8
3	#5470.00	57.3 PK	68.2	-10.9	3.57 H	28	53.5	3.8
4	*5570.00	101.3 PK			3.57 H	28	61.6	39.7
5	*5570.00	88.0 AV			3.57 H	28	48.3	39.7
6	#5725.00	58.2 PK	68.2	-10.0	3.57 H	28	54.0	4.2
7	11140.00	60.1 PK	74.0	-13.9	1.81 H	215	42.0	18.1
8	11140.00	46.6 AV	54.0	-7.4	1.81 H	215	28.5	18.1

**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	5460.00	57.1 PK	74.0	-16.9	2.02 V	271	53.3	3.8
2	5460.00	42.8 AV	54.0	-11.2	2.02 V	271	39.0	3.8
3	#5470.00	57.2 PK	68.2	-11.0	2.02 V	271	53.4	3.8
4	*5570.00	99.9 PK			2.02 V	271	60.2	39.7
5	*5570.00	86.9 AV			2.02 V	271	47.2	39.7
6	#5725.00	58.0 PK	68.2	-10.2	2.02 V	271	53.8	4.2
7	11140.00	60.3 PK	74.0	-13.7	2.03 V	323	42.2	18.1
8	11140.00	46.7 AV	54.0	-7.3	2.03 V	323	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.

**9 kHz ~ 30 MHz Data:**

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

**30 MHz ~ 1 GHz Worst-Case Data:**

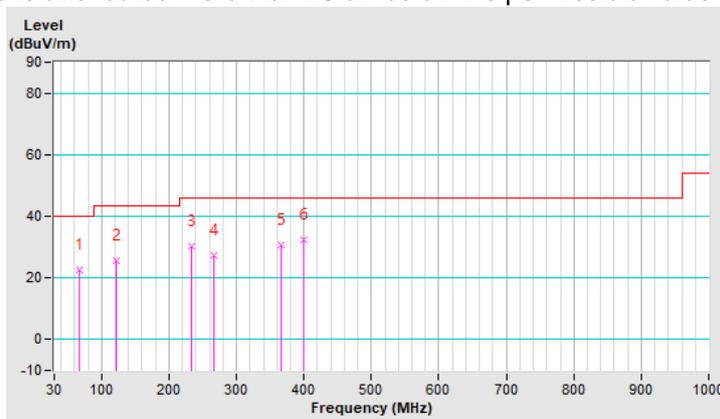
**802.11ax (HE20)**

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	66.55	22.7 QP	40.0	-17.3	1.50 H	304	32.7	-10.0
2	121.38	25.6 QP	43.5	-17.9	1.00 H	71	36.4	-10.8
3	232.43	30.2 QP	46.0	-15.8	1.00 H	66	41.0	-10.8
4	267.58	27.5 QP	46.0	-18.5	2.00 H	258	36.1	-8.6
5	365.99	30.8 QP	46.0	-15.2	1.00 H	119	36.3	-5.5
6	399.72	32.4 QP	46.0	-13.6	1.50 H	280	36.9	-4.5

**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 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.



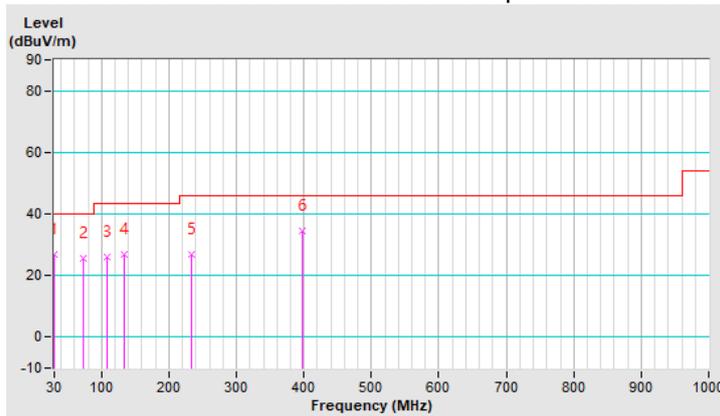
CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

**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	30.00	27.0 QP	40.0	-13.0	1.50 V	113	37.4	-10.4
2	72.17	25.4 QP	40.0	-14.6	1.00 V	285	36.7	-11.3
3	107.32	26.2 QP	43.5	-17.3	2.00 V	332	38.3	-12.1
4	134.03	26.7 QP	43.5	-16.8	1.00 V	39	36.2	-9.5
5	232.43	26.9 QP	46.0	-19.1	1.50 V	328	37.7	-10.8
6	398.32	34.3 QP	46.0	-11.7	1.00 V	298	38.8	-4.5

**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 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 0.50 MHz.

### 4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 11, 2019	Dec. 10, 2020
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2019	Sep. 04, 2020
LISN/AMN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 20, 2020	Feb. 19, 2021
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 22, 2019	Aug. 21, 2020
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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

#### 4.2.3 Test Procedures

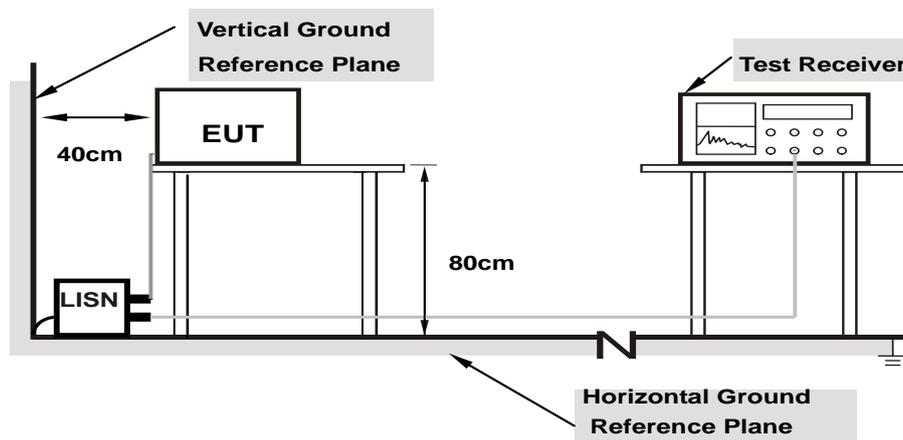
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit -20 dB) 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.
  2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

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

#### 4.2.6 EUT Operating Conditions

- a. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.2.7 Test Results

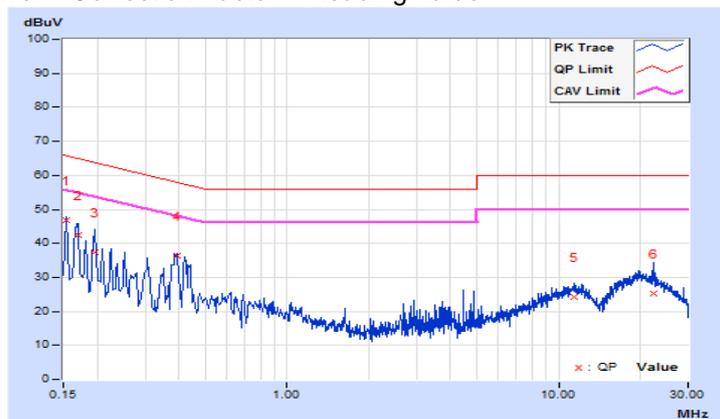
**CONDUCTED WORST-CASE DATA:**  
**802.11ax (HE20)**

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 67%RH
Tested by	Adair Peng	Test Date	2020/7/21

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	9.63	37.11	21.53	46.74	31.16	65.79	55.79	-19.05	-24.63
2	0.16955	9.63	32.73	18.80	42.36	28.43	64.98	54.98	-22.62	-26.55
3	0.19692	9.62	27.77	13.97	37.39	23.59	63.74	53.74	-26.35	-30.15
4	0.39219	9.65	26.61	18.90	36.26	28.55	58.02	48.02	-21.76	-19.47
5	11.44599	9.88	14.31	9.31	24.19	19.19	60.00	50.00	-35.81	-30.81
6	22.44482	9.91	15.24	10.43	25.15	20.34	60.00	50.00	-34.85	-29.66

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

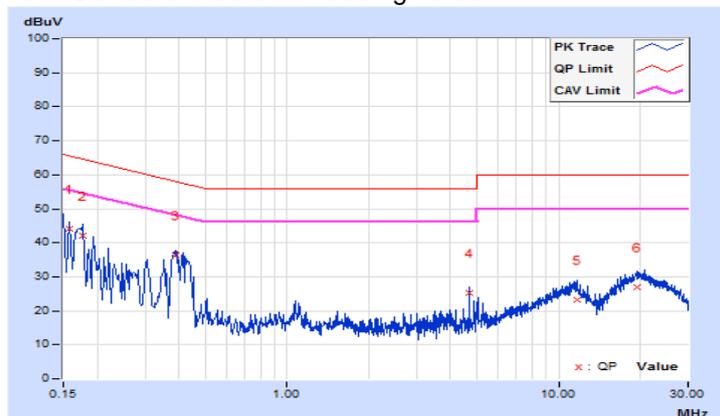


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23°C, 67%RH
Tested by	Adair Peng	Test Date	2020/7/21

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	0.15782	9.66	34.39	19.61	44.05	29.27	65.58	55.58	-21.53	-26.31
2	0.17698	9.65	32.37	17.27	42.02	26.92	64.63	54.63	-22.61	-27.71
<b>3</b>	<b>0.38808</b>	<b>9.67</b>	<b>26.68</b>	<b>20.46</b>	<b>36.35</b>	<b>30.13</b>	<b>58.10</b>	<b>48.10</b>	<b>-21.75</b>	<b>-17.97</b>
4	4.66996	9.83	15.27	2.19	25.10	12.02	56.00	46.00	-30.90	-33.98
5	11.72360	9.93	13.45	8.44	23.38	18.37	60.00	50.00	-36.62	-31.63
6	19.40675	10.02	16.83	11.96	26.85	21.98	60.00	50.00	-33.15	-28.02

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 $\leq$ 125 mW (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	250 mW (24 dBm)
U-NII-2A		√	250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-2C		√	250 mW (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  $N_{ANT} \leq 4$ ;

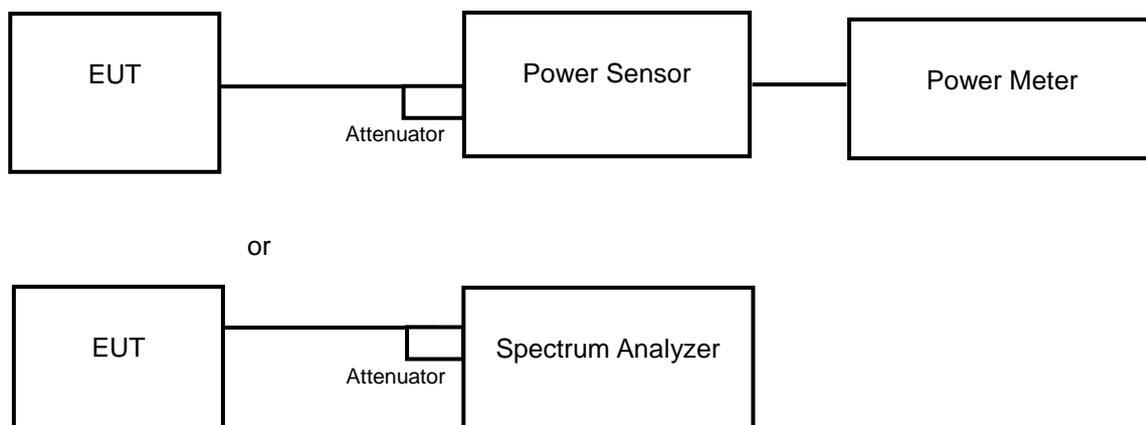
Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

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

##### <Power Output Measurement>



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

##### **Average Power Measurement**

<802.11a, 802.11n (HT20), 802.11n (HT40)>

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.

<802.11ac (VHT80)>

- a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99 % occupied bandwidth) of the signal.
- b. Set sweep trigger to "free run".
- c. Set RBW = 1 MHz.
- d. Set VBW  $\geq$  3 MHz
- e. Number of points in sweep  $\geq$  2 Span / RBW.
- f. Sweep time  $\leq$  (number of points in sweep) \* T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS.
- i. Trace mode = max hold.
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum

##### **26 dB Bandwidth**

- a. Set RBW = approximately 1 % of the emission bandwidth.
- b. Set the VBW  $\geq$  3 x 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 Results

##### Power Output:

##### 802.11a

##### 802.11a (SISO)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)		Maximum Conducted Power (dBm)		Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
36	5180	34.356	34.594	15.36	15.39	24	Pass
40	5200	34.198	34.356	15.34	15.36	24	Pass
48	5240	34.041	34.198	15.32	15.34	24	Pass
52	5260	33.884	34.041	15.30	15.32	24	Pass
56	5280	34.277	34.356	15.35	15.36	24	Pass
64	5320	34.277	34.435	15.35	15.37	24	Pass
100	5500	34.674	34.914	15.40	15.43	24	Pass
120	5600	33.963	34.119	15.31	15.33	24	Pass
140	5700	33.884	34.041	15.30	15.32	24	Pass
144	5720	33.884	34.119	15.30	15.33	24	Pass
149	5745	34.754	27.733	15.41	14.43	30	Pass
157	5785	34.914	35.075	15.43	15.45	30	Pass
165	5825	34.041	34.356	15.32	15.36	30	Pass

##### 802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	12.37	12.49	34.995	15.44	24	Pass
40	5200	12.41	12.48	35.156	15.46	24	Pass
48	5240	12.38	12.47	34.995	15.44	24	Pass
52	5260	12.36	12.49	34.995	15.44	24	Pass
56	5280	12.40	12.47	35.075	15.45	24	Pass
64	5320	12.38	12.43	34.834	15.42	24	Pass
100	5500	12.39	12.47	34.995	15.44	24	Pass
120	5600	12.37	12.45	34.834	15.42	24	Pass
140	5700	12.39	12.46	34.995	15.44	24	Pass
144	5720	12.39	12.49	35.075	15.45	24	Pass
149	5745	12.43	12.49	35.237	15.47	30	Pass
157	5785	12.41	12.48	35.156	15.46	30	Pass
165	5825	12.35	12.42	34.674	15.40	30	Pass

**802.11n (HT40)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	12.38	12.45	34.914	15.43	24	Pass
46	5230	12.35	12.47	34.834	15.42	24	Pass
54	5270	12.41	12.43	34.914	15.43	24	Pass
62	5310	12.36	12.44	34.754	15.41	24	Pass
102	5510	12.38	12.48	34.995	15.44	24	Pass
118	5590	12.37	12.42	34.754	15.41	24	Pass
134	5670	12.36	12.47	34.914	15.43	24	Pass
142	5710	12.35	12.42	34.674	15.40	24	Pass
151	5755	12.37	12.46	34.914	15.43	30	Pass
159	5795	12.32	12.45	34.674	15.40	30	Pass

**802.11ac (VHT80)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	12.35	12.43	34.674	15.40	24	Pass
58	5290	12.36	12.44	34.754	15.41	24	Pass
106	5530	12.32	12.43	34.594	15.39	24	Pass
122	5610	12.37	12.41	34.674	15.40	24	Pass
138	5690	12.31	12.42	34.514	15.38	24	Pass
155	5775	12.35	12.42	34.674	15.40	30	Pass

**802.11ac (VHT160)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
50	5250	10.85	10.92	24.547	13.90	24	Pass
114	5570	11.32	11.46	27.542	14.40	24	Pass

**802.11ax (HE20)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	12.42	12.49	35.237	15.47	24	Pass
40	5200	12.43	12.49	35.237	15.47	24	Pass
48	5240	12.42	12.48	35.156	15.46	24	Pass
52	5260	12.41	12.49	35.156	15.46	24	Pass
56	5280	12.43	12.48	35.237	15.47	24	Pass
64	5320	12.41	12.45	34.995	15.44	24	Pass
100	5500	12.43	12.48	35.237	15.47	24	Pass
120	5600	12.43	12.48	35.237	15.47	24	Pass
140	5700	12.42	12.48	35.156	15.46	24	Pass
144	5720	12.42	12.49	35.237	15.47	24	Pass
149	5745	12.42	12.49	35.237	15.47	30	Pass
157	5785	12.45	12.48	35.318	15.48	30	Pass
165	5825	12.38	12.44	34.834	15.42	30	Pass

**802.11ax (HE40)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	12.42	12.47	35.156	15.46	24	Pass
46	5230	12.39	12.48	35.075	15.45	24	Pass
54	5270	12.43	12.48	35.237	15.47	24	Pass
62	5310	12.40	12.48	35.075	15.45	24	Pass
102	5510	12.43	12.49	35.237	15.47	24	Pass
118	5590	12.40	12.46	34.995	15.44	24	Pass
134	5670	12.40	12.49	35.156	15.46	24	Pass
142	5710	12.39	12.44	34.914	15.43	24	Pass
151	5755	12.41	12.48	35.156	15.46	30	Pass
159	5795	12.39	12.47	34.995	15.44	30	Pass

**802.11ax (HE80)**

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	12.39	12.48	35.075	15.45	24	Pass
58	5290	12.42	12.46	35.075	15.45	24	Pass
106	5530	12.38	12.47	34.995	15.44	24	Pass
122	5610	12.41	12.48	35.156	15.46	24	Pass
138	5690	12.38	12.47	34.995	15.44	24	Pass
155	5775	12.39	12.48	35.075	15.45	30	Pass

**802.11ax (HE160)**

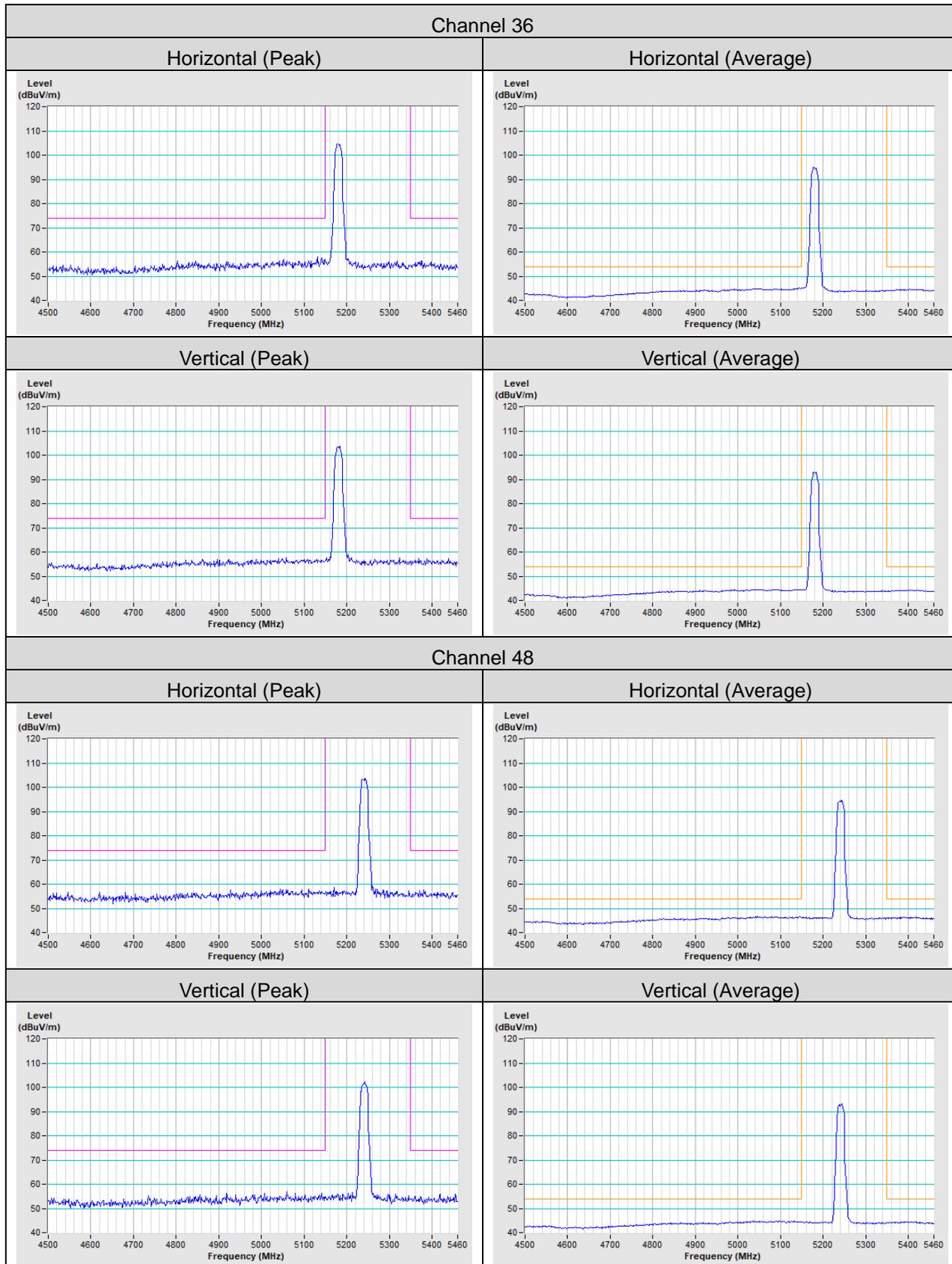
Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
50	5250	10.87	10.98	24.774	13.94	24	Pass
114	5570	11.39	11.48	27.861	14.45	24	Pass

## 5 Pictures of Test Arrangements

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

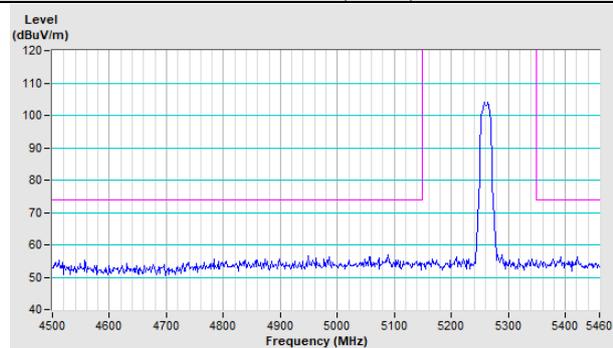
# Annex A- Radiated Out of Band Emission (OOBE) Measurement

## 802.11a

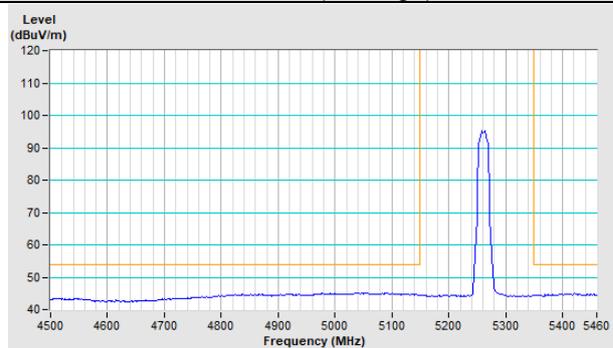


### Channel 52

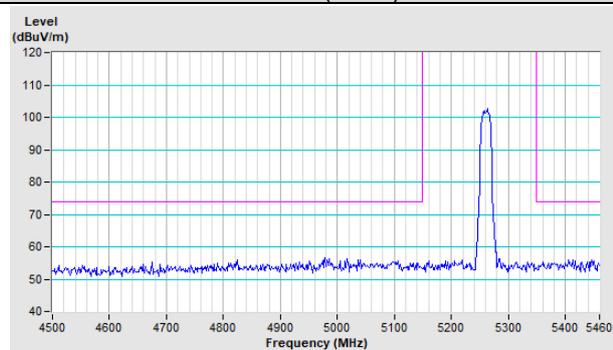
Horizontal (Peak)



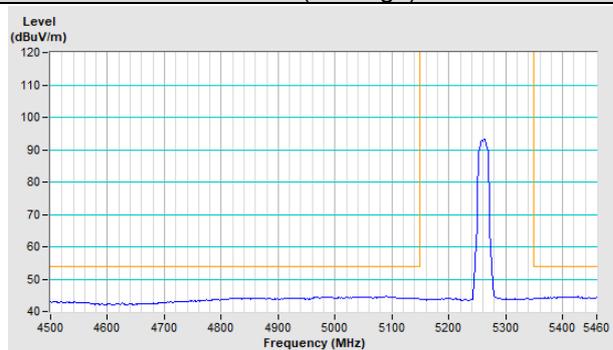
Horizontal (Average)



Vertical (Peak)

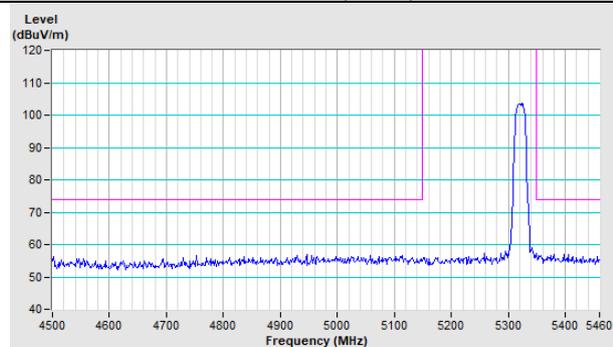


Vertical (Average)

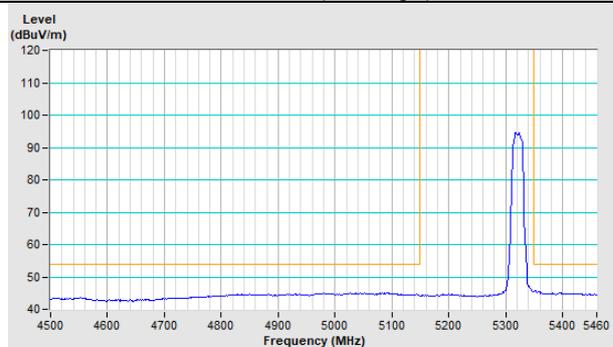


### Channel 64

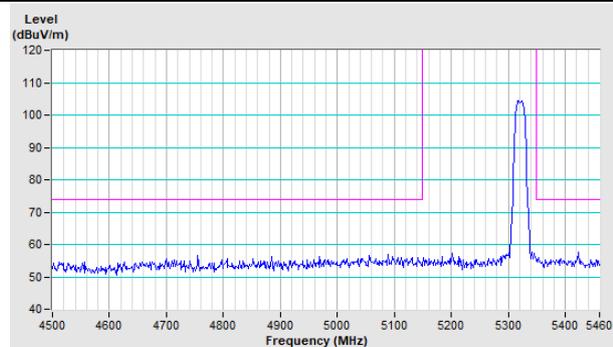
Horizontal (Peak)



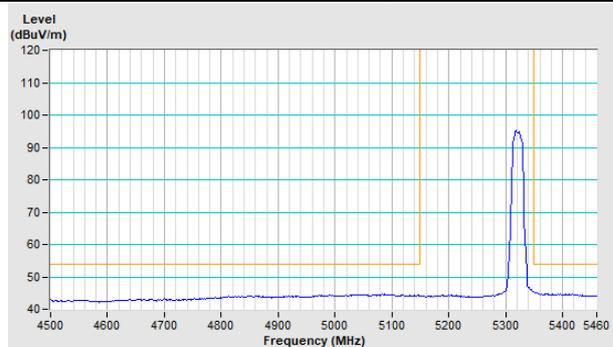
Horizontal (Average)



Vertical (Peak)

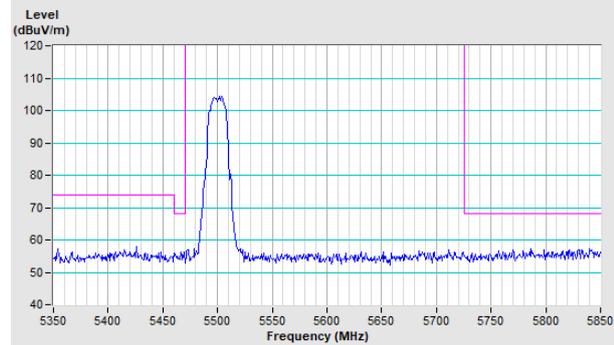


Vertical (Average)

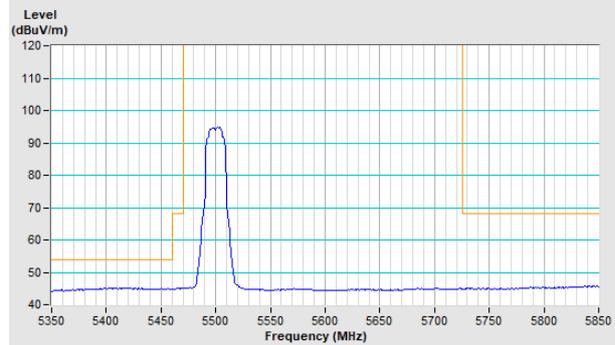


Channel 100

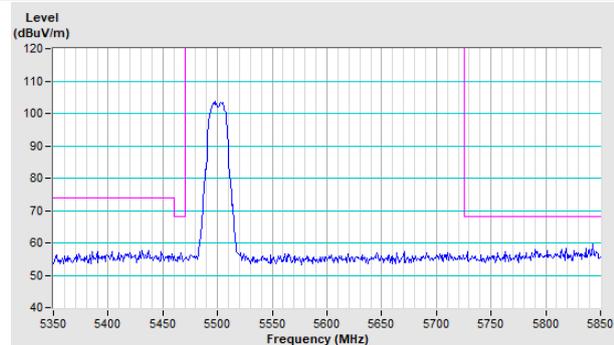
Horizontal (Peak)



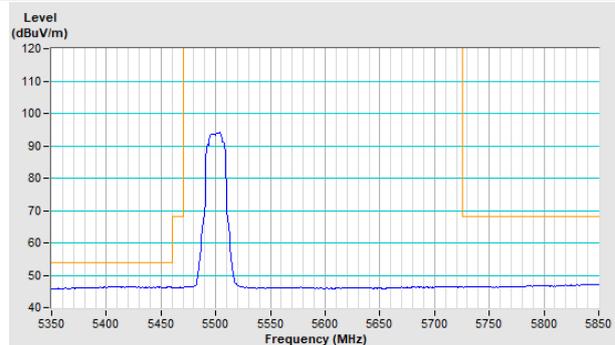
Horizontal (Average)



Vertical (Peak)

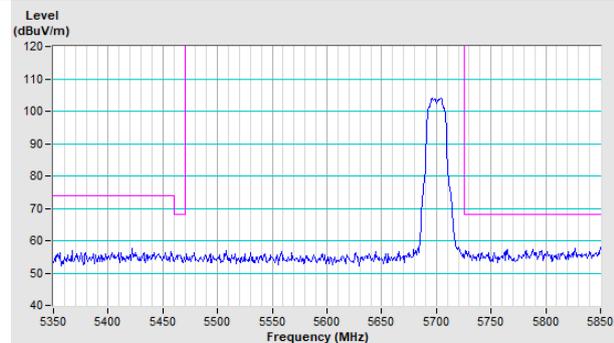


Vertical (Average)

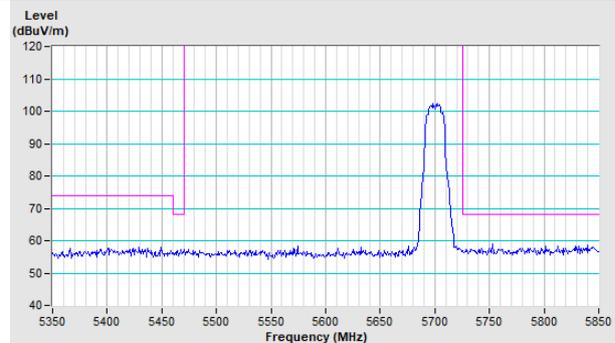


Channel 140

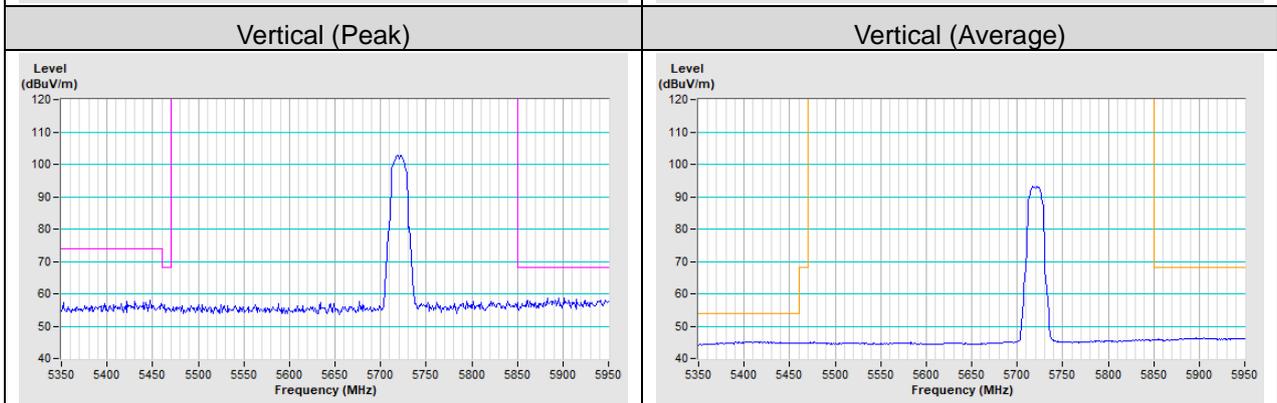
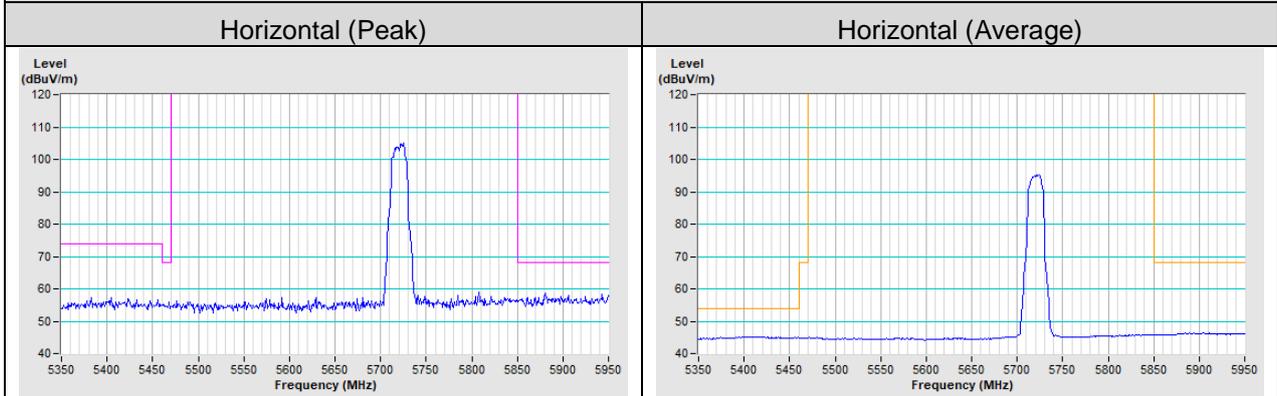
Horizontal



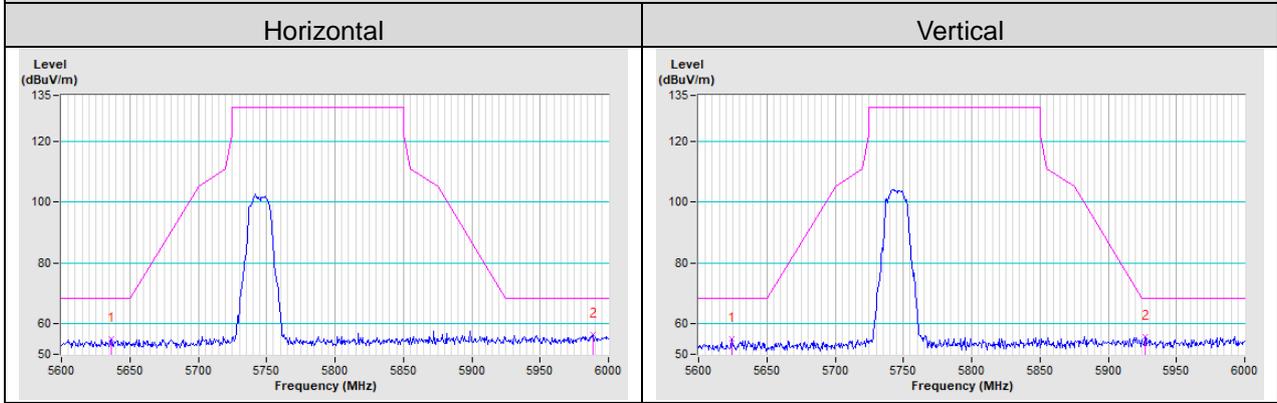
Vertical



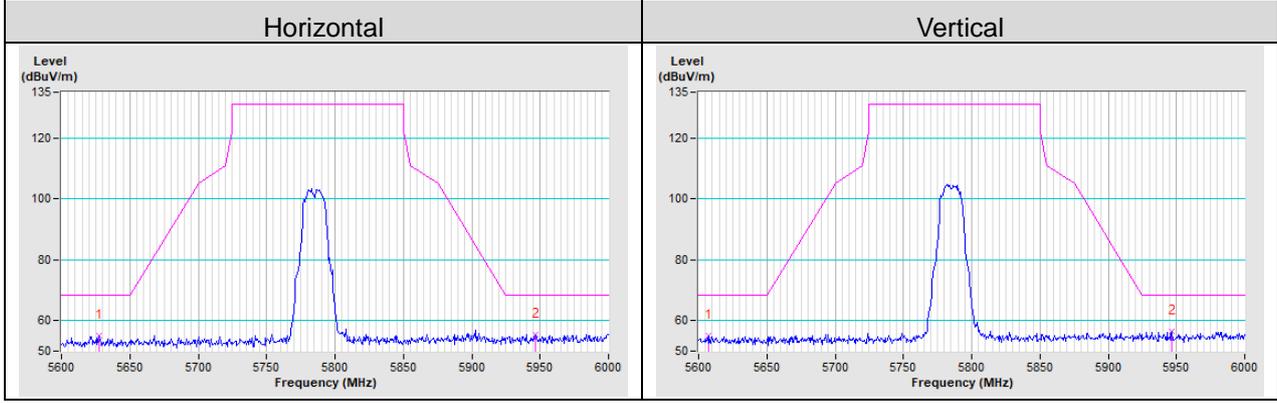
**Channel 144**



**Channel 149**



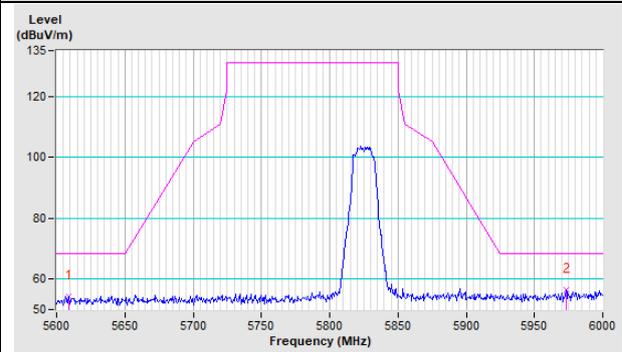
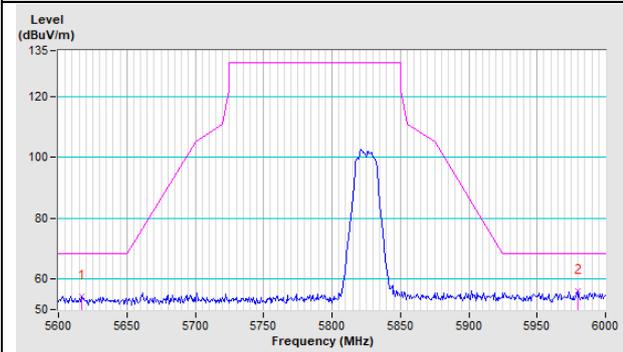
**Channel 157**



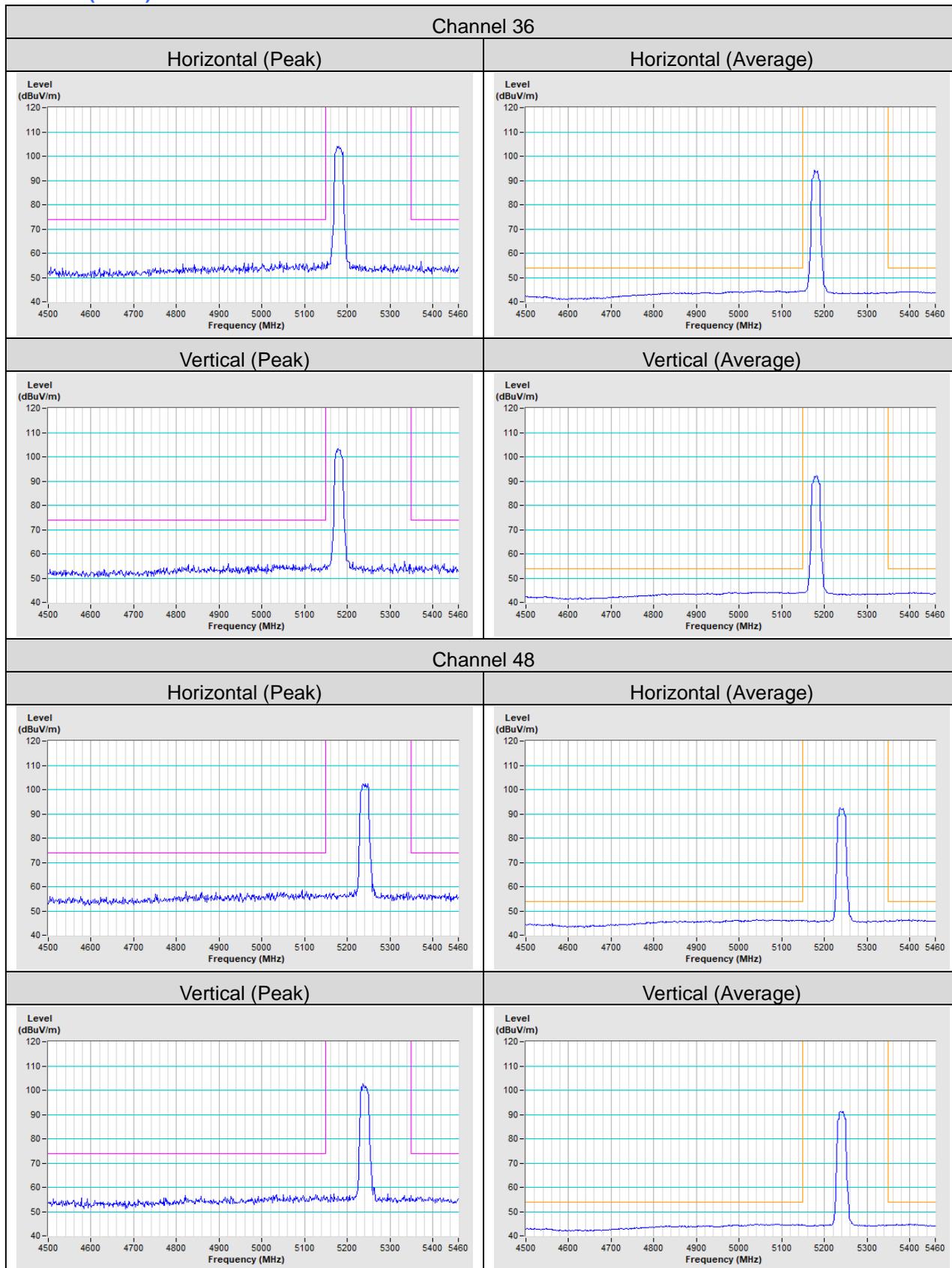
Channel 165

Horizontal

Vertical

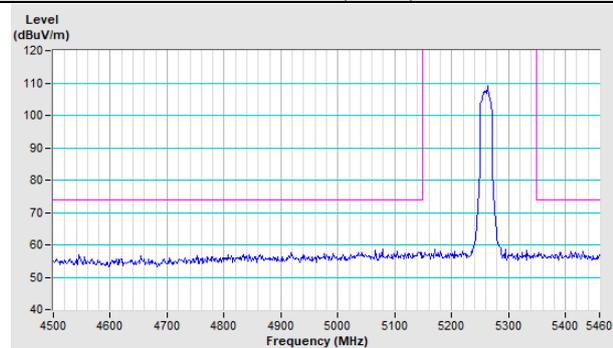


802.11ax (HE20)

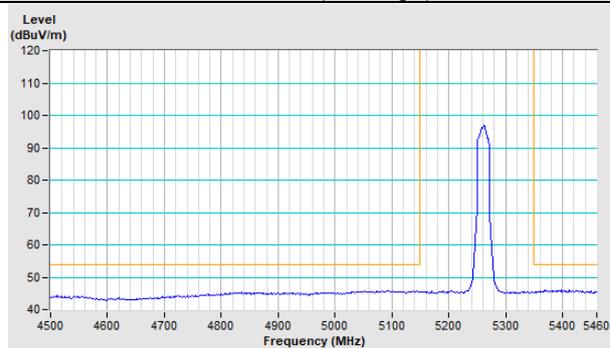


### Channel 52

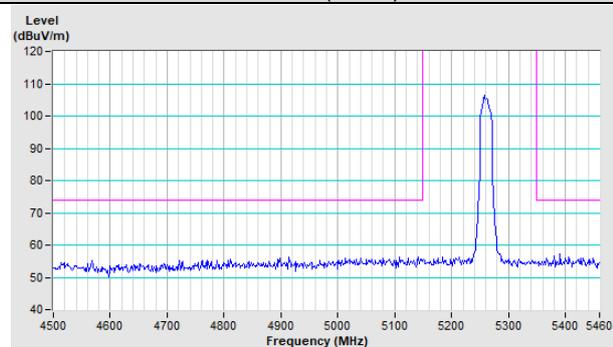
Horizontal (Peak)



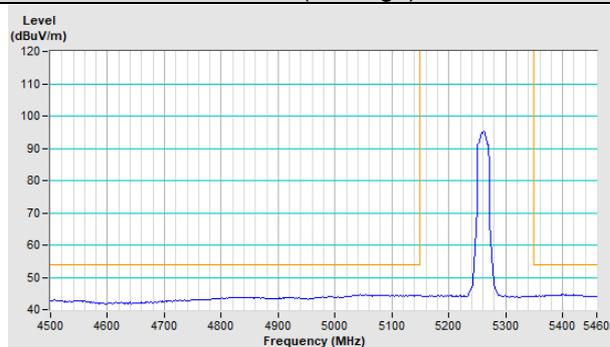
Horizontal (Average)



Vertical (Peak)

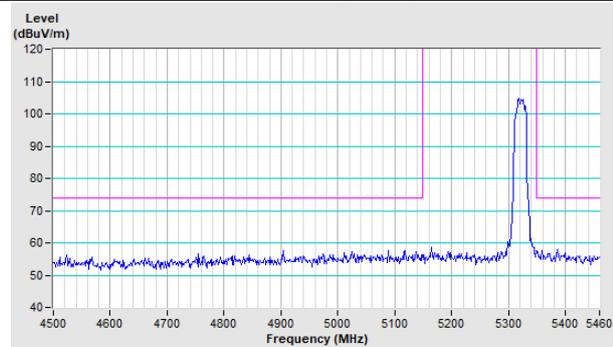


Vertical (Average)

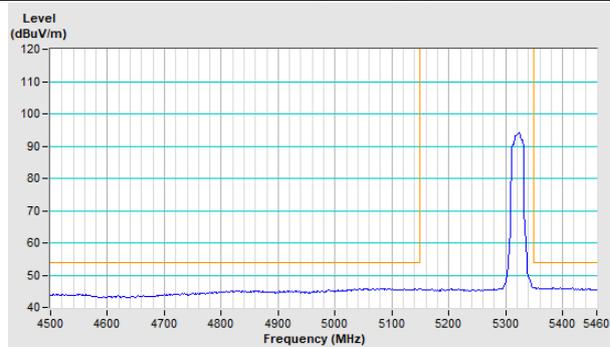


### Channel 64

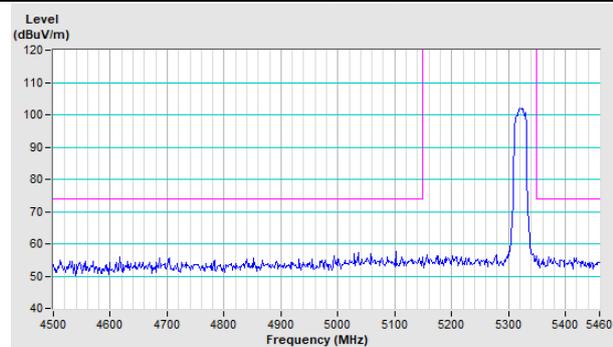
Horizontal (Peak)



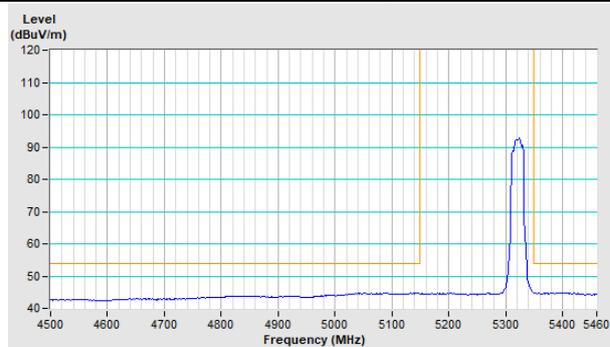
Horizontal (Average)



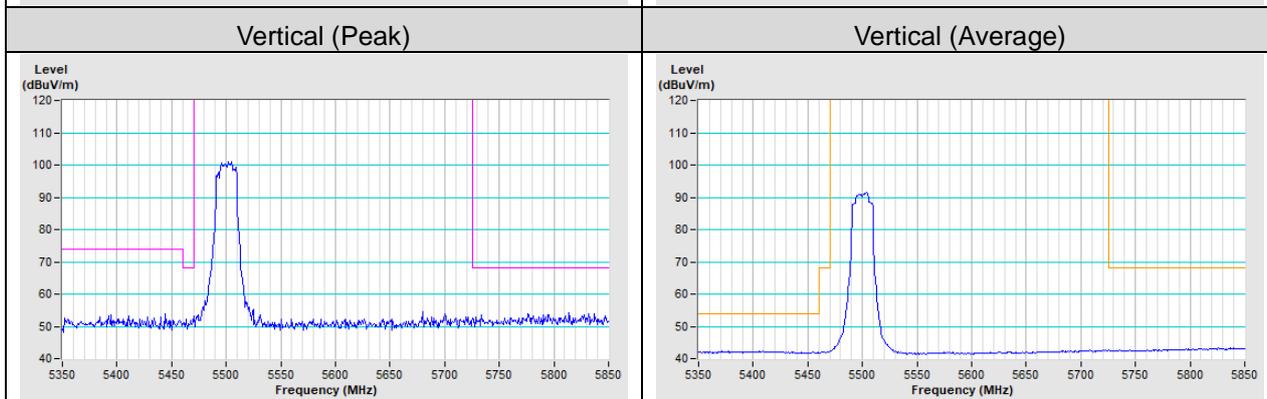
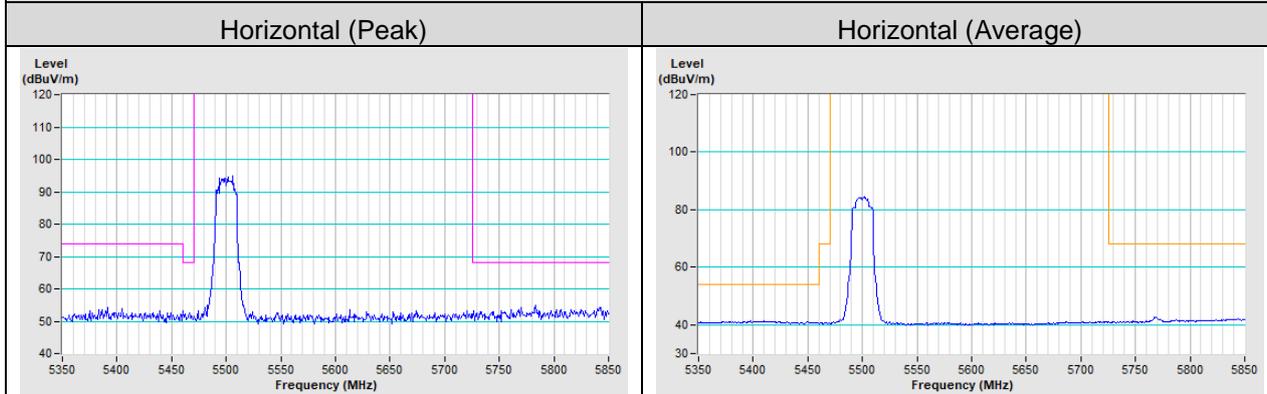
Vertical (Peak)



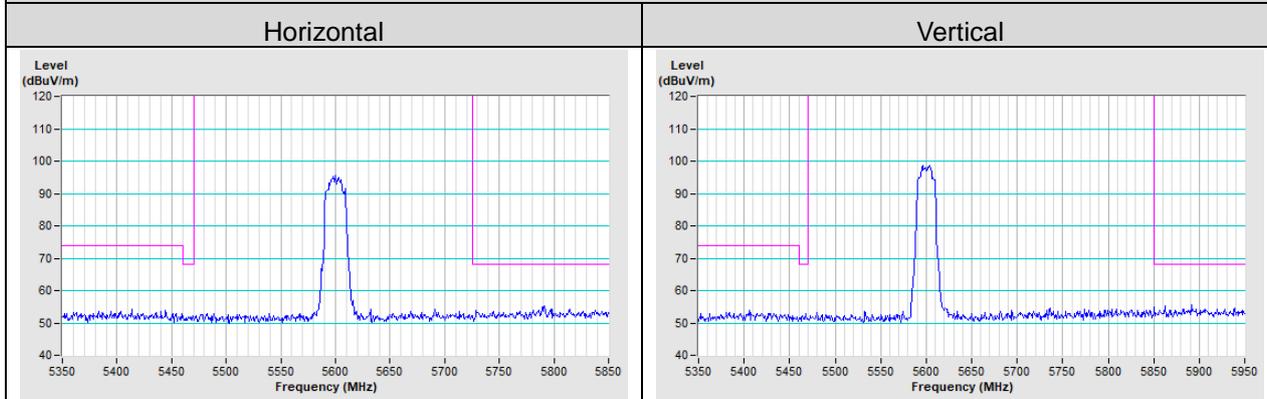
Vertical (Average)



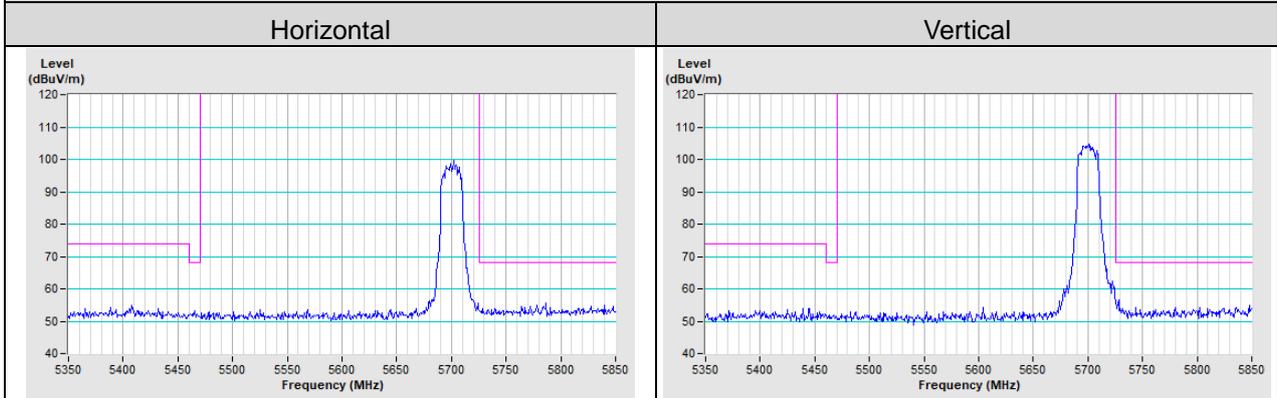
**Channel 100**



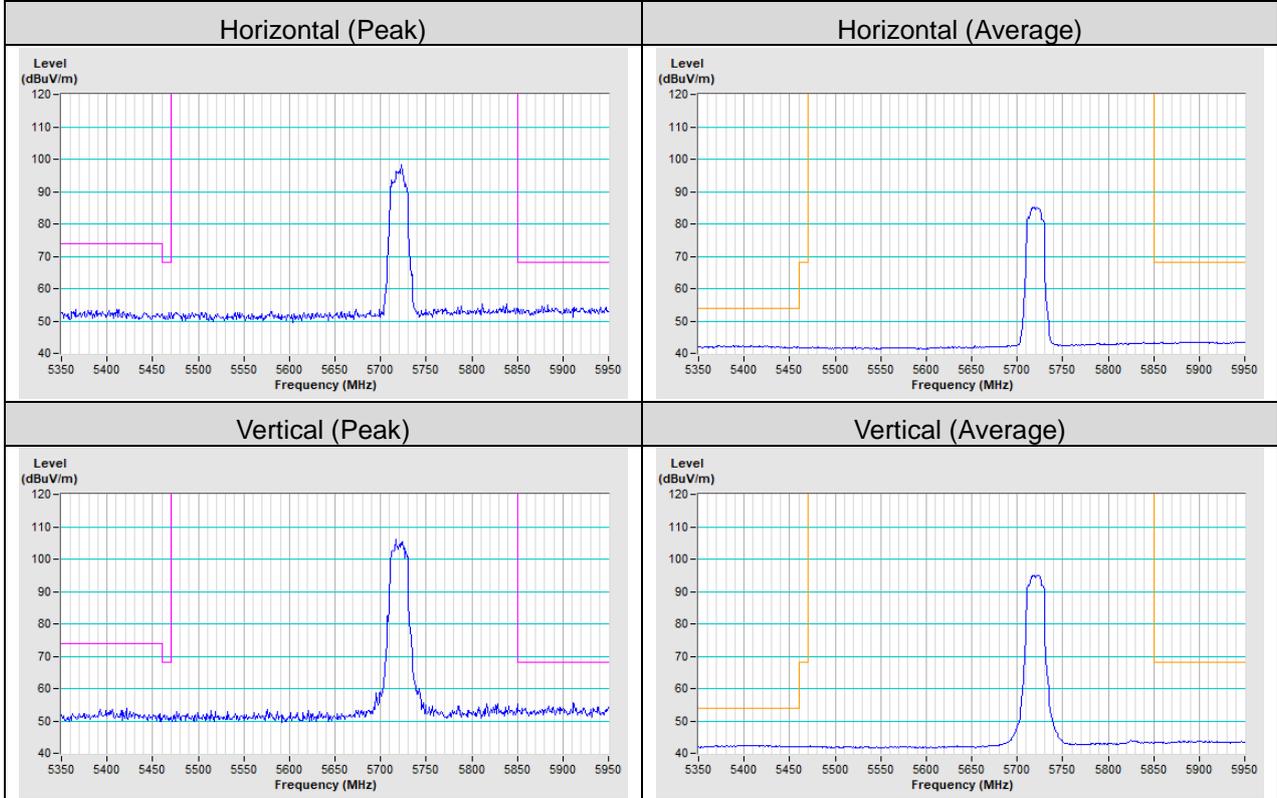
**Channel 120**



### Channel 140

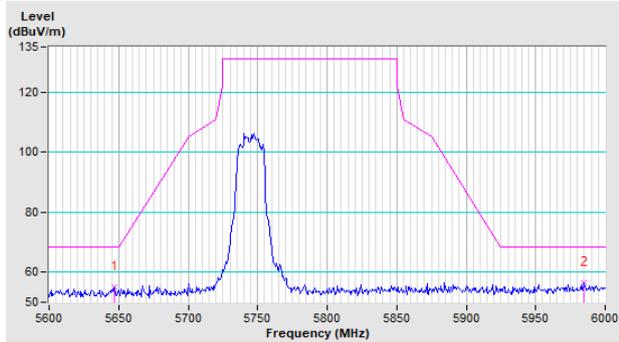


### Channel 144

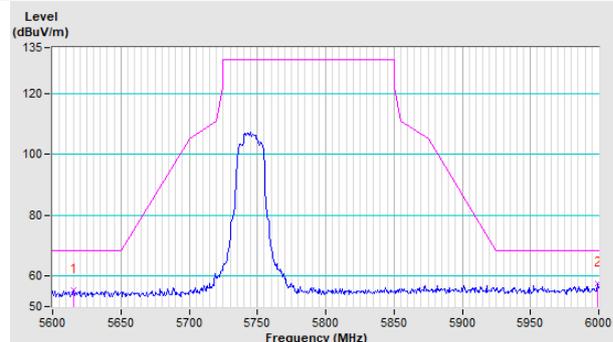


### Channel 149

Horizontal

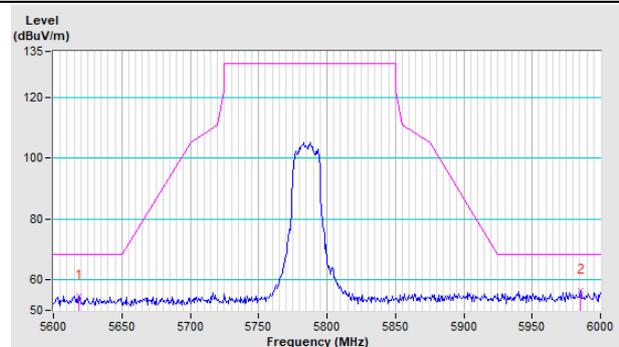


Vertical

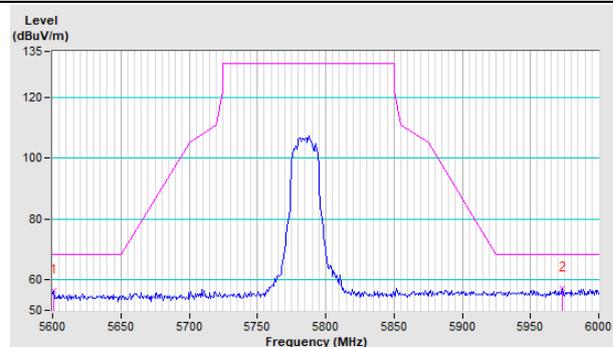


### Channel 157

Horizontal

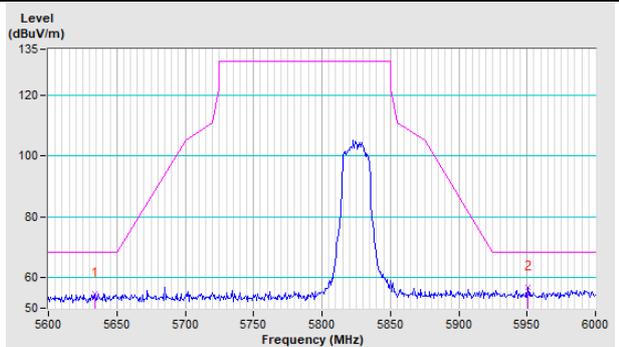


Vertical

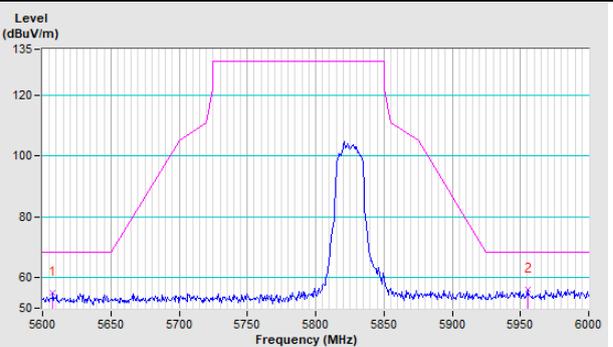


### Channel 165

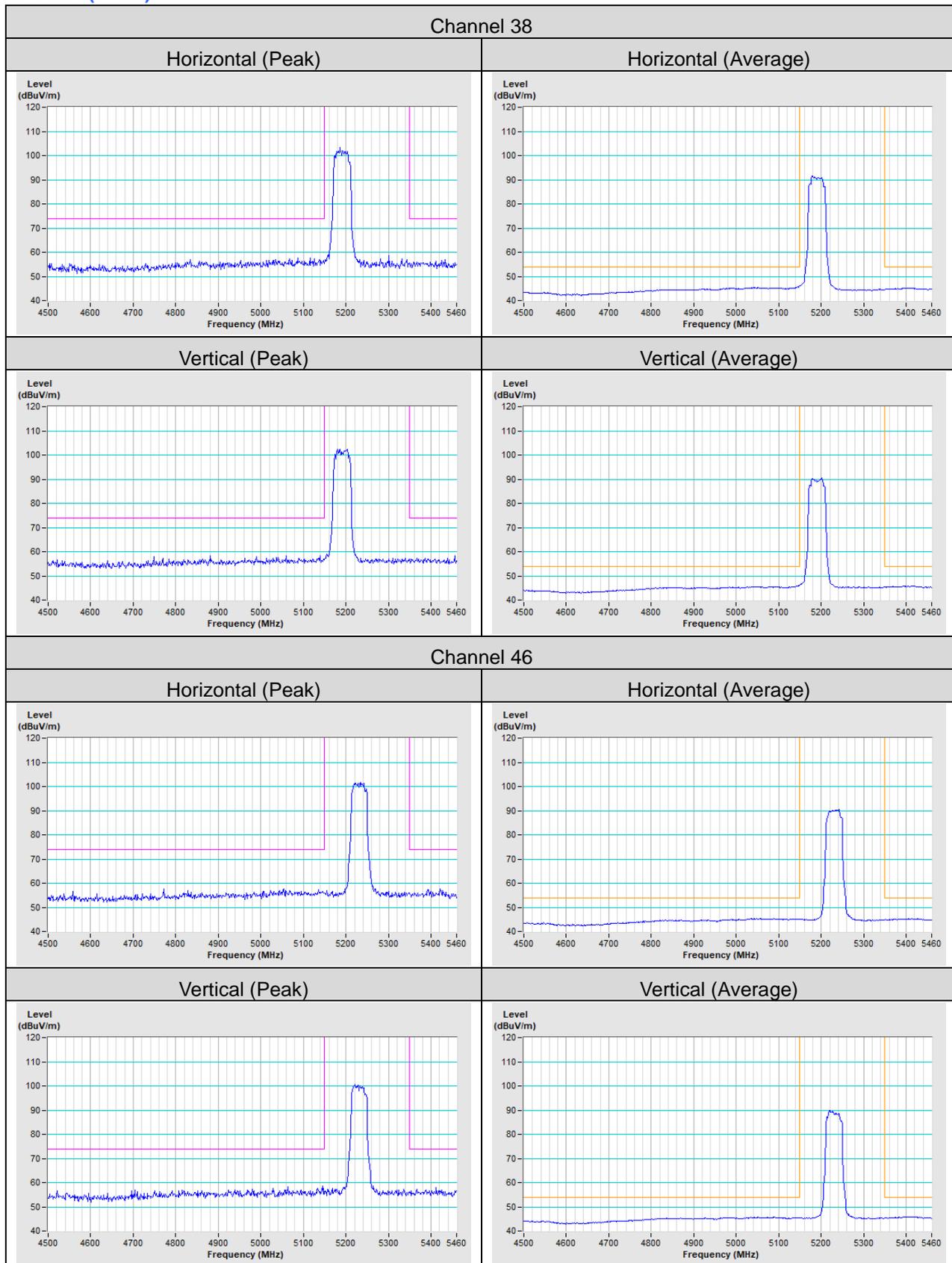
Horizontal



Vertical

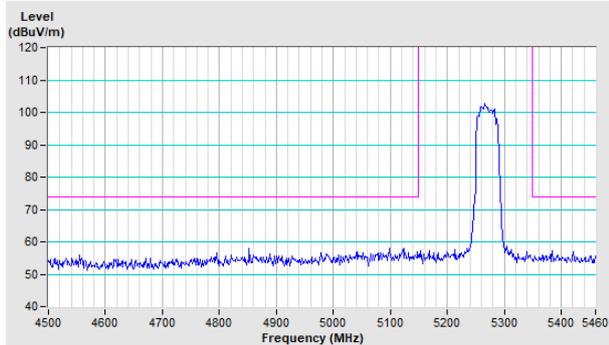


### 802.11ax (HE40)

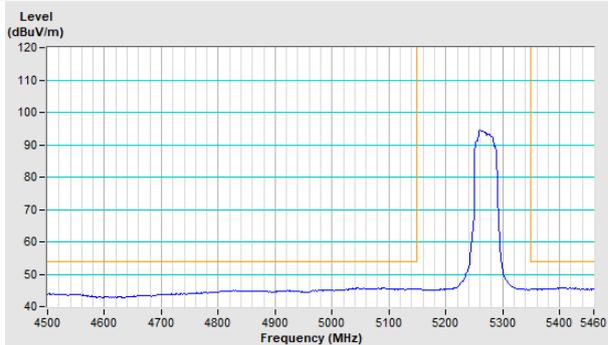


### Channel 54

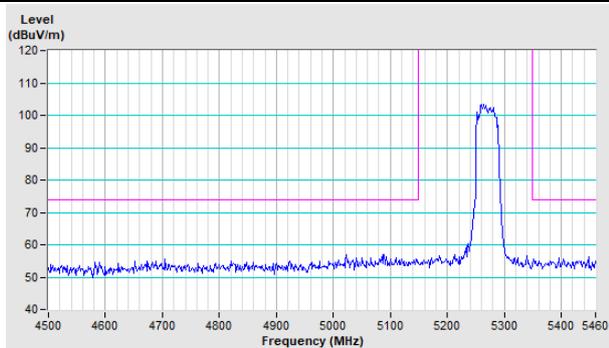
Horizontal (Peak)



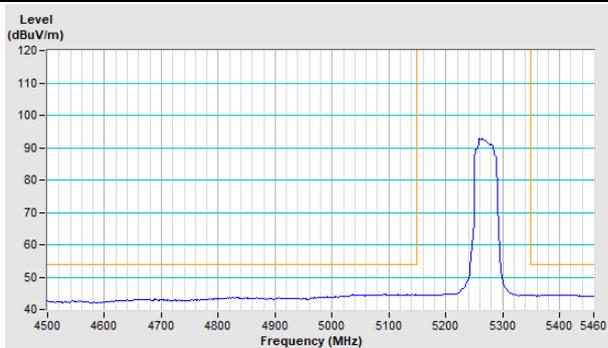
Horizontal (Average)



Vertical (Peak)

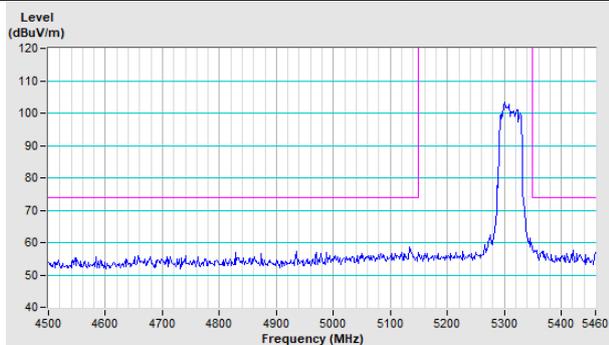


Vertical (Average)

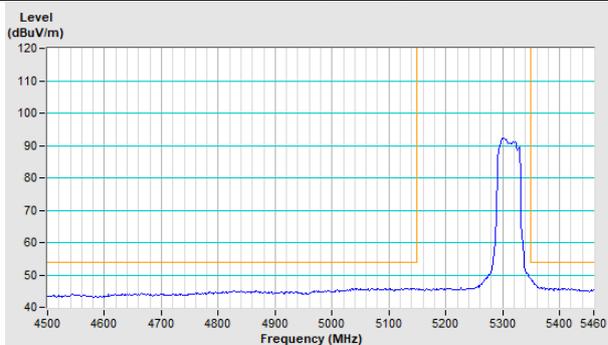


### Channel 62

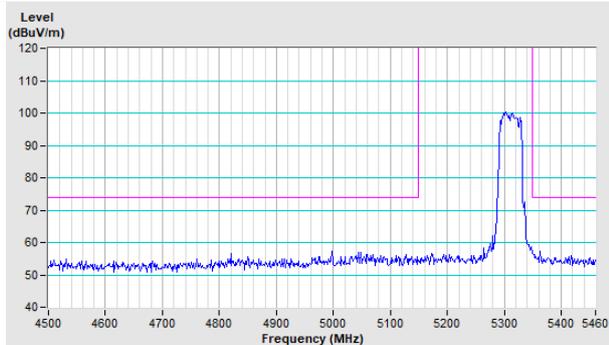
Horizontal (Peak)



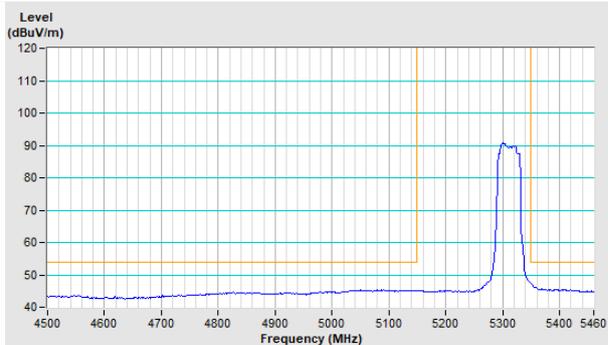
Horizontal (Average)

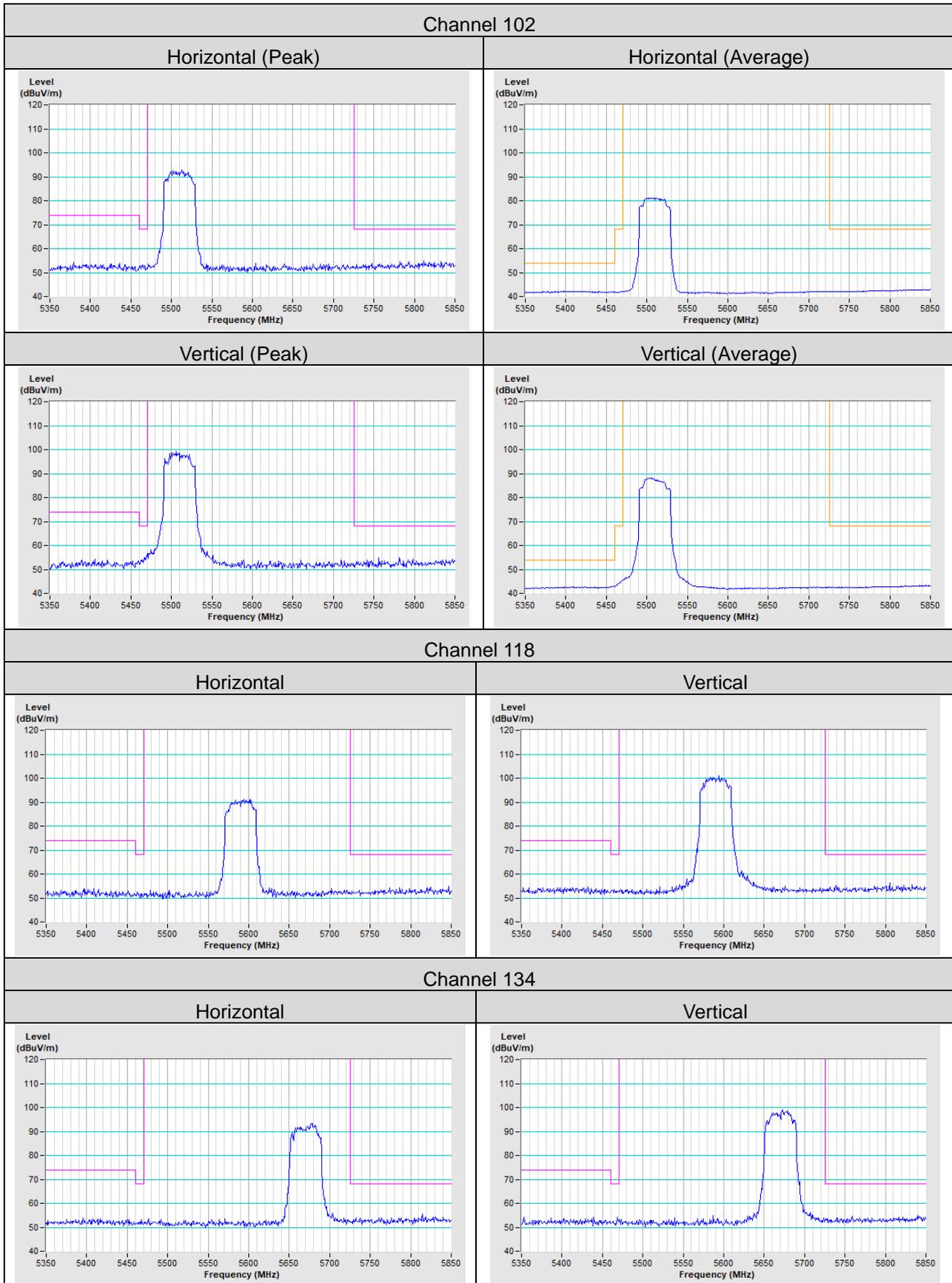


Vertical (Peak)



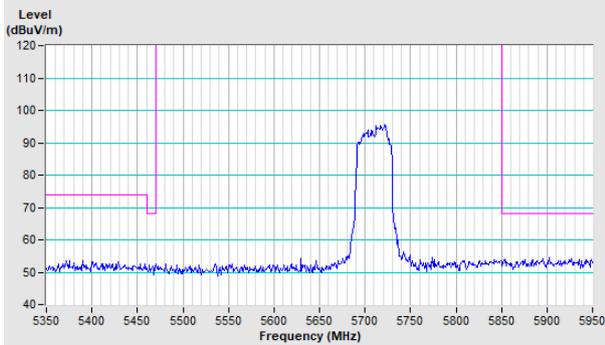
Vertical (Average)



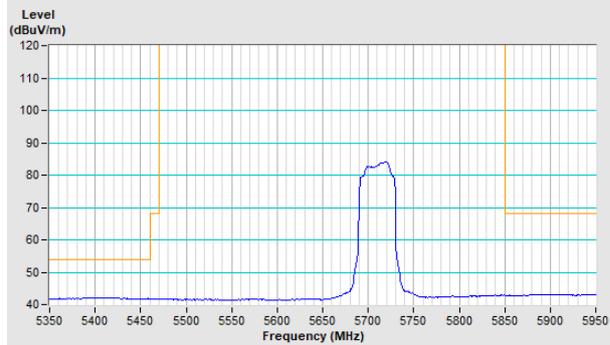


### Channel 142

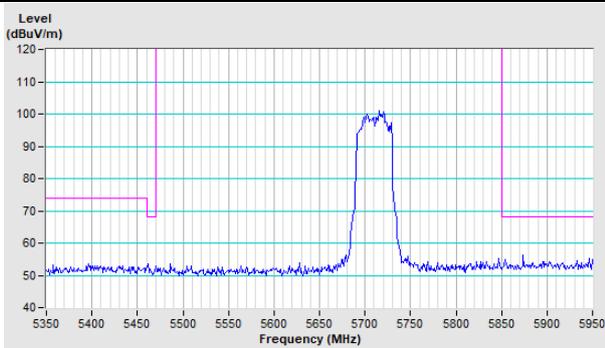
Horizontal (Peak)



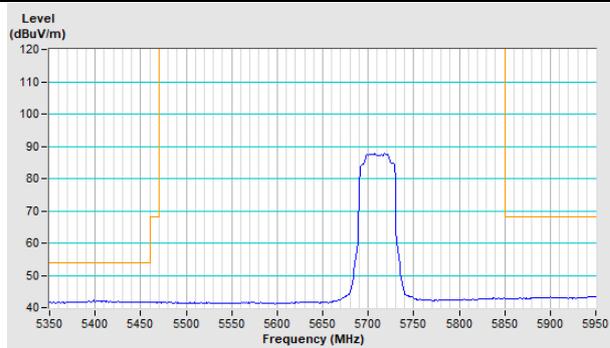
Horizontal (Average)



Vertical (Peak)

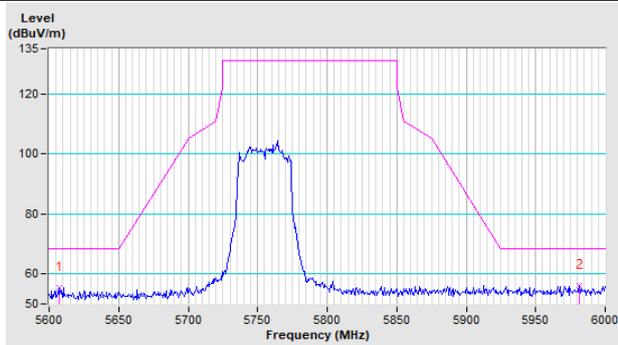


Vertical (Average)

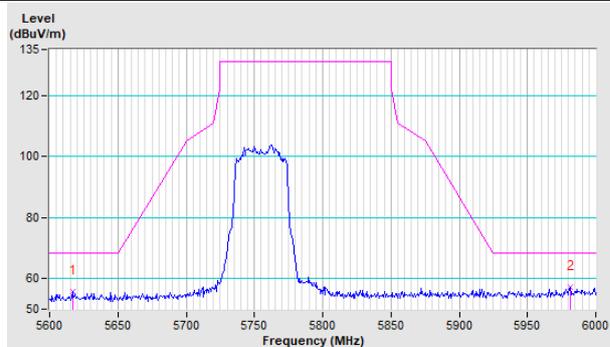


### Channel 151

Horizontal

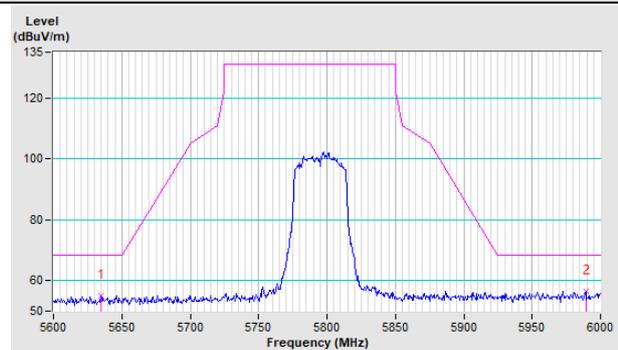


Vertical

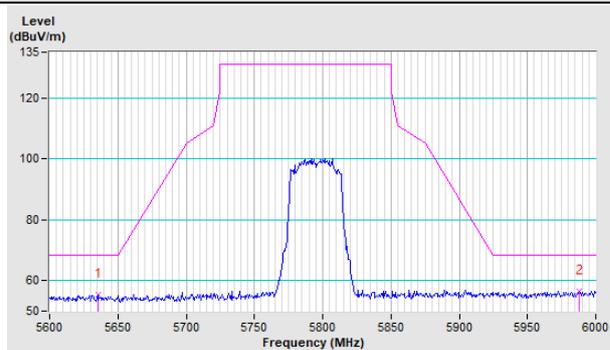


### Channel 159

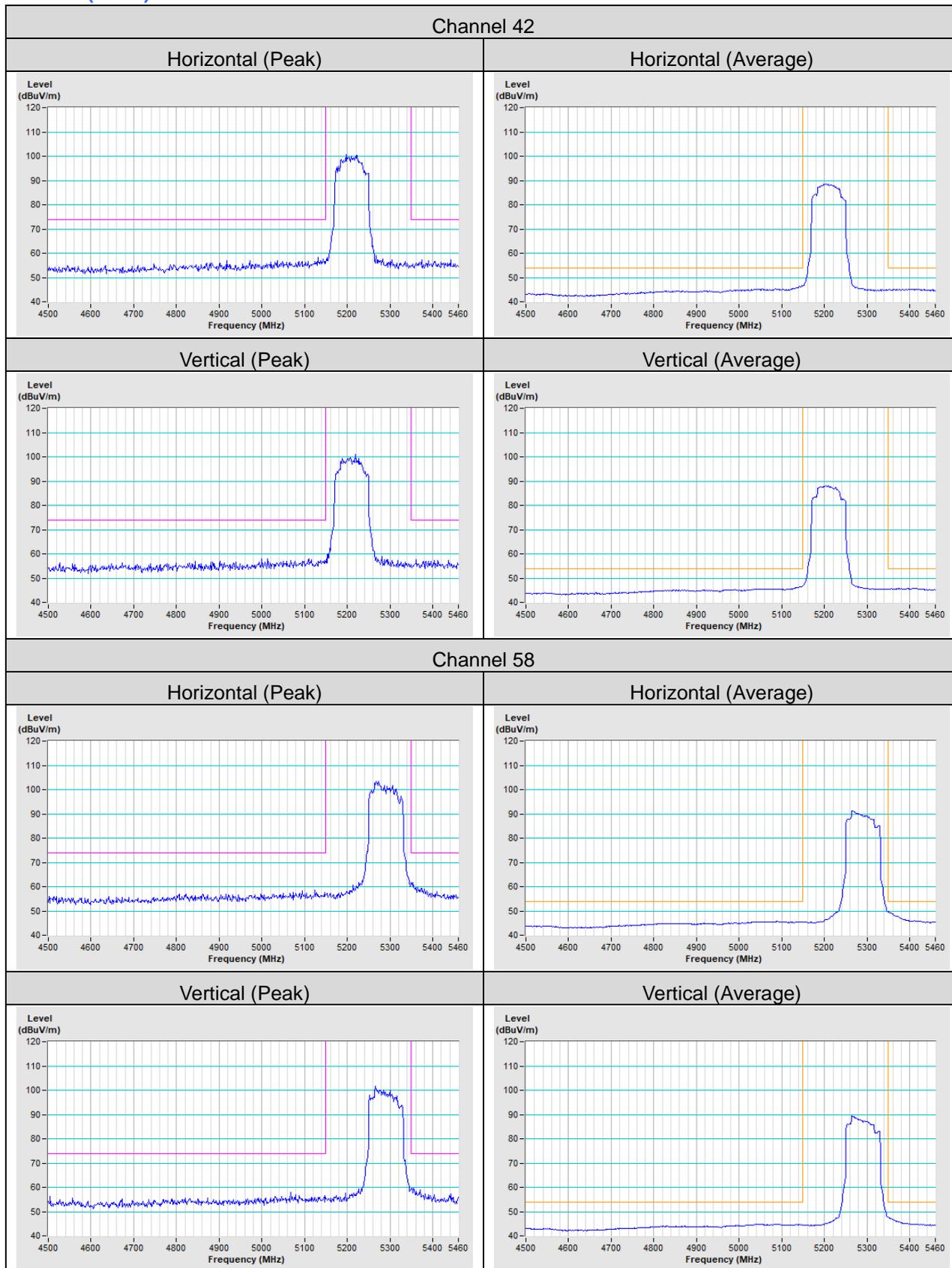
Horizontal



Vertical

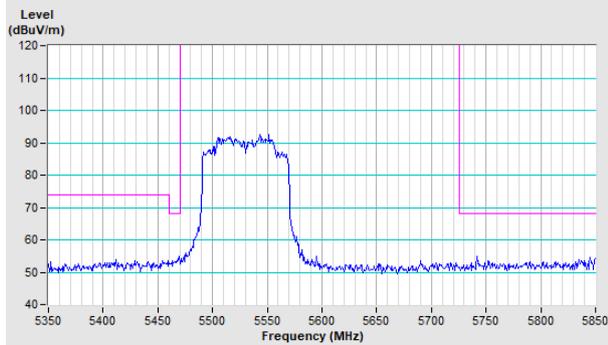


### 802.11ax (HE80)

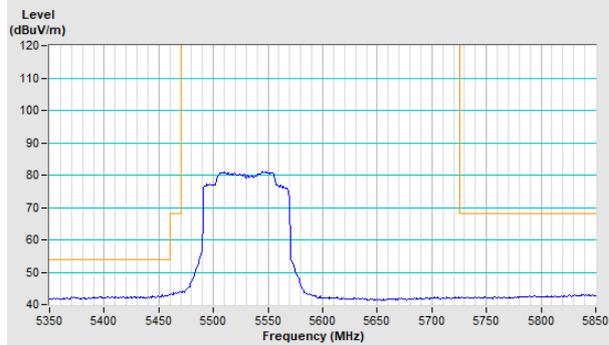


Channel 106

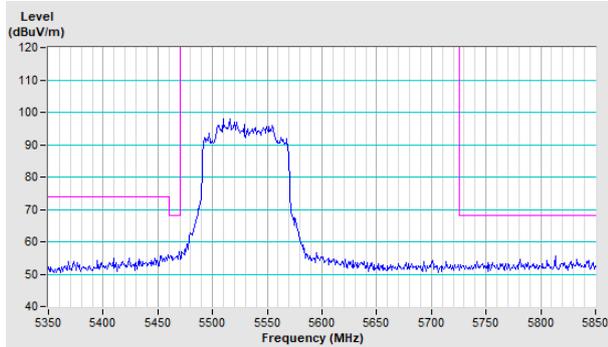
Horizontal (Peak)



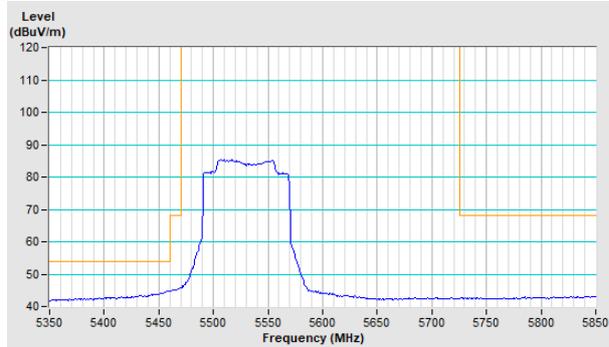
Horizontal (Average)



Vertical (Peak)

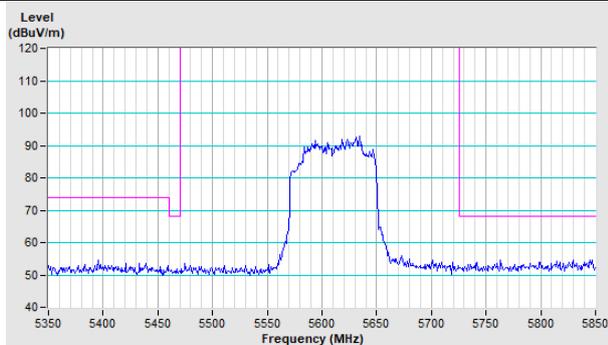


Vertical (Average)

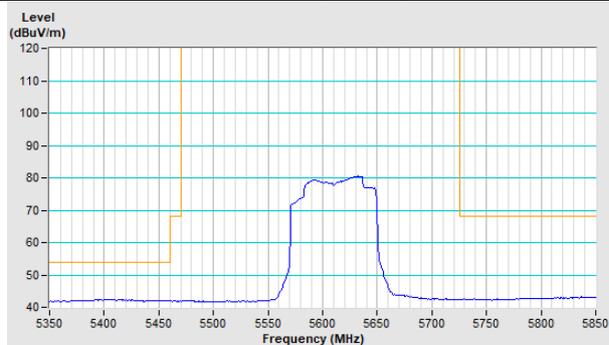


Channel 122

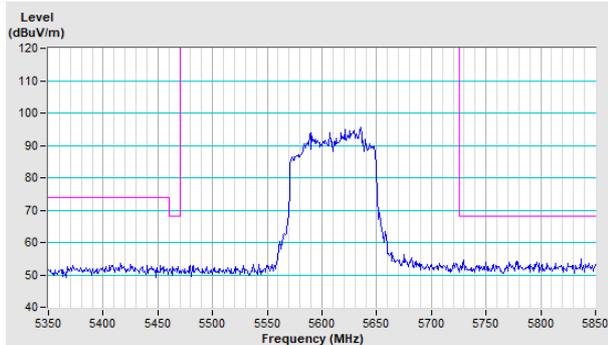
Horizontal (Peak)



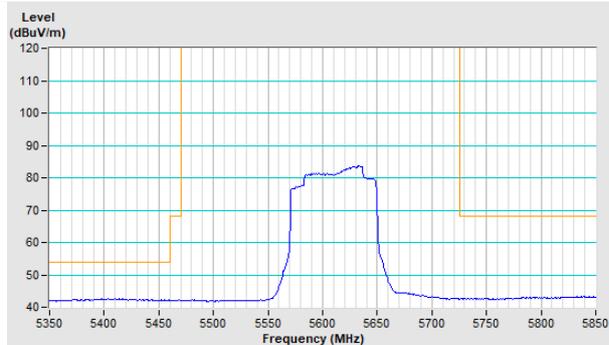
Horizontal (Average)



Vertical (Peak)

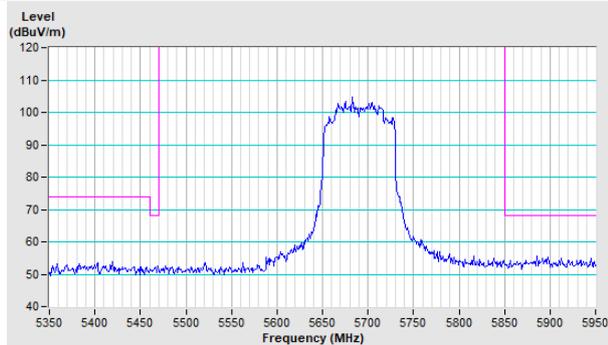


Vertical (Average)

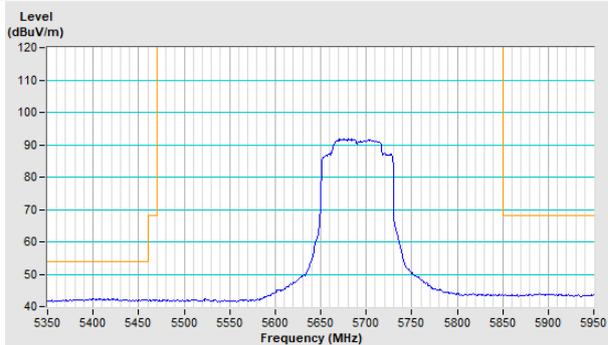


### Channel 138

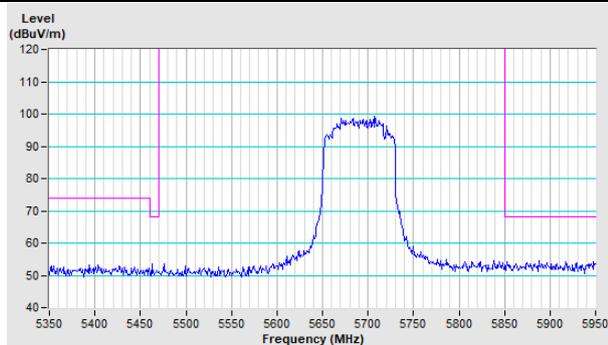
Horizontal (Peak)



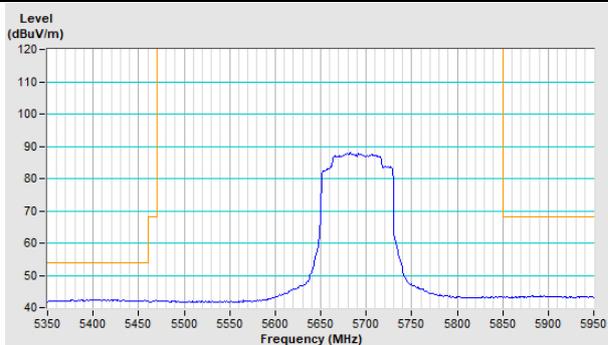
Horizontal (Average)



Vertical (Peak)

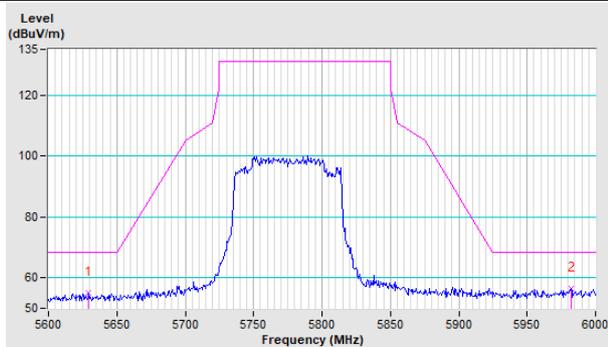


Vertical (Average)

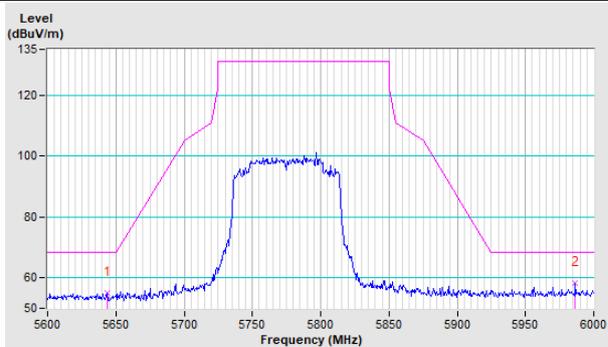


### Channel 155

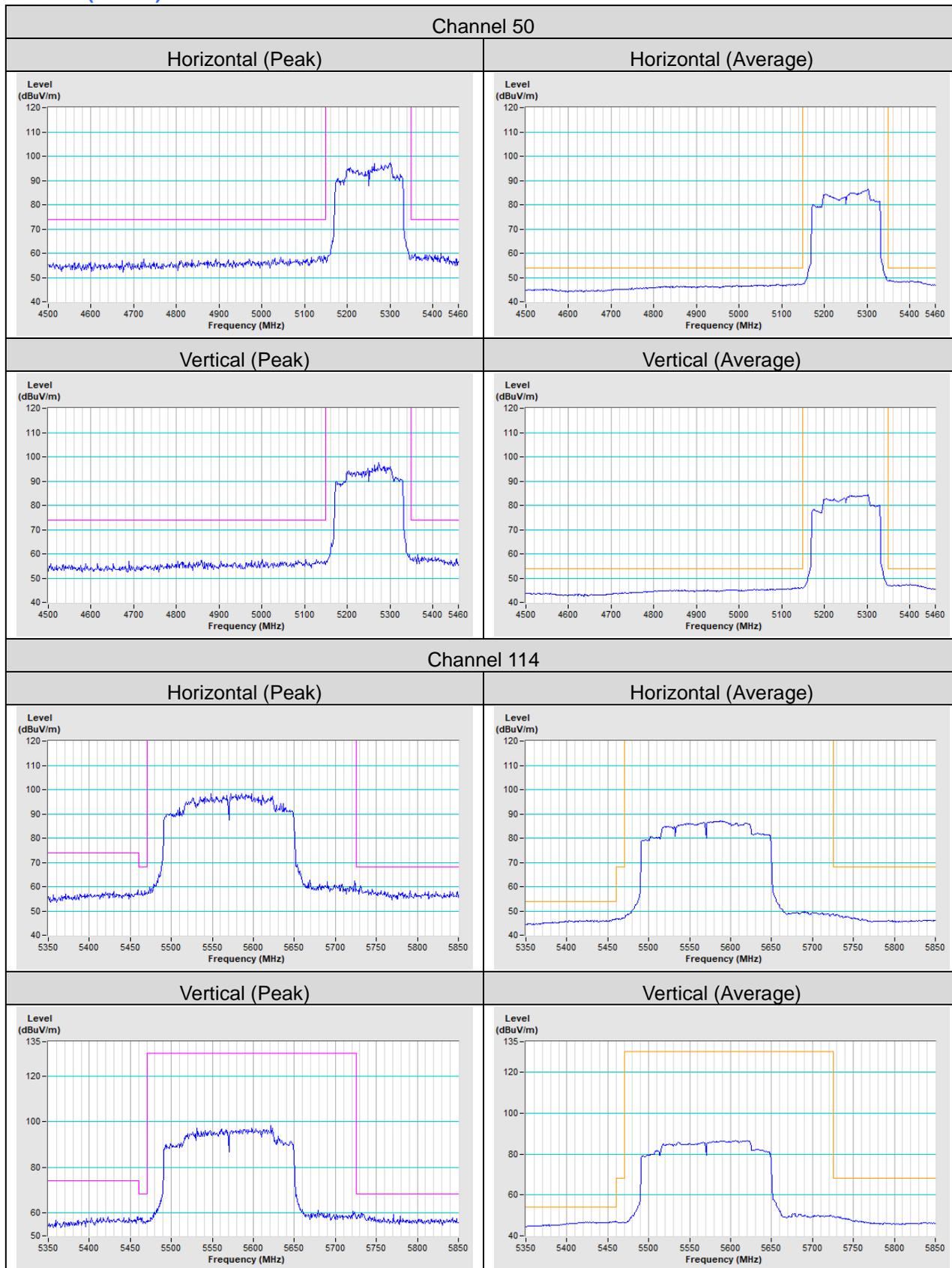
Horizontal



Vertical



### 802.11ax (HE160)



## 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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