

## FCC Test Report

**Report No.:** RF200508C22-1

**FCC ID:** COF-AS01

**Test Model:** AS-01

**Received Date:** May. 08, 2020

**Test Date:** May 21 ~ May 29, 2020

**Issued Date:** Jun. 03, 2020

**Applicant:** UNIVERSAL GLOBAL SCIENTIFIC INDUSTRIAL CO., LTD

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



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## Table of Contents

<b>Release Control Record</b> .....	<b>4</b>
<b>1 Certificate of Conformity</b> .....	<b>5</b>
<b>2 Summary of Test Results</b> .....	<b>6</b>
2.1 Measurement Uncertainty.....	6
2.2 Modification Record.....	6
<b>3 General Information</b> .....	<b>7</b>
3.1 General Description of EUT.....	7
3.2 Description of Test Modes.....	9
3.2.1 Test Mode Applicability and Tested Channel Detail.....	10
3.3 Duty Cycle of Test Signal.....	12
3.4 Description of Support Units.....	13
3.4.1 Configuration of System under Test.....	13
3.5 General Description of Applied Standards and References.....	13
<b>4 Test Types and Results</b> .....	<b>14</b>
4.1 Radiated Emission and Bandedge Measurement.....	14
4.1.1 Limits of Radiated Emission and Bandedge Measurement.....	14
4.1.2 Test Instruments.....	15
4.1.3 Test Procedures.....	16
4.1.4 Deviation from Test Standard.....	17
4.1.5 Test Set Up.....	17
4.1.6 EUT Operating Conditions.....	18
4.1.7 Test Results.....	19
4.2 Conducted Emission Measurement.....	75
4.2.1 Limits of Conducted Emission Measurement.....	75
4.2.2 Test Instruments.....	75
4.2.3 Test Procedures.....	76
4.2.4 Deviation from Test Standard.....	76
4.2.5 Test Setup.....	76
4.2.6 EUT Operating Conditions.....	76
4.2.7 Test Results.....	77
4.3 Transmit Power Measurement.....	79
4.3.1 Limits of Transmit Power Measurement.....	79
4.3.2 Test Setup.....	79
4.3.3 Test Instruments.....	80
4.3.4 Test Procedure.....	80
4.3.5 Deviation from Test Standard.....	80
4.3.6 EUT Operating Conditions.....	80
4.3.7 Test Result.....	80
4.4 Occupied Bandwidth Measurement.....	90
4.4.1 Test Setup.....	90
4.4.2 Test Instruments.....	90
4.4.3 Test Procedure.....	90
4.4.4 Test Result.....	91
4.5 Peak Power Spectral Density Measurement.....	95
4.5.1 Limits of Peak Power Spectral Density Measurement.....	95
4.5.2 Test Setup.....	95
4.5.3 Test Instruments.....	95
4.5.4 Test Procedures.....	96
4.5.5 Deviation from Test Standard.....	96
4.5.6 EUT Operating Conditions.....	96
4.5.7 Test Results.....	97
4.6 Frequency Stability.....	103
4.6.1 Limits of Frequency Stability Measurement.....	103

4.6.2	Test Setup.....	103
4.6.3	Test Instruments .....	103
4.6.4	Test Procedure .....	103
4.6.5	Deviation from Test Standard .....	103
4.6.6	EUT Operating Condition .....	104
4.6.7	Test Results .....	104
4.7	6dB Bandwidth Measurement.....	106
4.7.1	Limits of 6dB Bandwidth Measurement.....	106
4.7.2	Test Setup.....	106
4.7.3	Test Instruments .....	106
4.7.4	Test Procedure .....	106
4.7.5	Deviation from Test Standard .....	106
4.7.6	EUT Operating Condition .....	106
4.7.7	Test Results .....	107
<b>5</b>	<b>Pictures of Test Arrangements.....</b>	<b>109</b>
	<b>Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band).....</b>	<b>110</b>
	<b>Annex B- Band Edge Measurement.....</b>	<b>114</b>
	<b>Appendix – Information of the Testing Laboratories .....</b>	<b>126</b>

### Release Control Record

Issue No.	Description	Date Issued
RF200508C22-1	Original release.	Jun. 03, 2020

## 1 Certificate of Conformity

**Product:** Azure Sphere Module

**Brand:** 

**Test Model:** AS-01

**Sample Status:** Engineering sample

**Applicant:** UNIVERSAL GLOBAL SCIENTIFIC INDUSTRIAL CO., LTD

**Test Date:** May 21 ~ May 29, 2020

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

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

**Prepared by :**  , **Date:** Jun. 03, 2020  
Polly Chen / Specialist

**Approved by :**  , **Date:** Jun. 03, 2020  
Bruce Chen / Senior Project Engineer

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.31dB at 0.17384MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.5dB at 5725.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	For Dipole/ PIFA Antenna: Antenna connector is i-pex(MHF) connector not a standard connector. For PCB Antenna: 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.
- For U-NII-1, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

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


Measurement	Frequency	Expanded Uncertainty (k=2) ( $\pm$ )
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	Azure Sphere Module
Brand	
Test Model	AS-01
Sample Status	Engineering sample
Power Supply Rating	3.3Vdc (Host equipment)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 72.2Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20): 4 5260~5320MHz: 802.11a, 802.11n (HT20): 4 5500~5720MHz: 802.11a, 802.11n (HT20): 12 5745~5825MHz: 802.11a, 802.11n (HT20): 5
Output Power	Mode A: 5180~5240MHz: 21.528mW 5260~5320MHz: 21.928mW 5500~5720MHz: 22.080mW 5745~5825MHz: 21.429mW Mode B: 5180~5240MHz: 21.827mW 5260~5320MHz: 22.080mW 5500~5720MHz: 21.979mW 5745~5825MHz: 22.131mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Cable Supplied	1m shielded USB cable without core

Note:

1. The EUT provides 1 completed transmitter and 1 receiver.

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	1TX

2. The following antennas were provided to the EUT.

Item	Antenna type	Connector	Gain(dBi)	
			2.4GHz	5GHz
WiFi external ANT (AUX) (Optional)	Dipole	i-pex(MHF)	3.22	3.43
WiFi onboard ANT (Main)	PCB	NA	0.19	3.27
BT ANT	PIFA	i-pex(MHF)	3	-

3. The BT could transmit simultaneously either with WLAN 2.4GHz or 5GHz at the same time.



### 3.2 Description of Test Modes

#### 5180~5240MHz:

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

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

#### 5260~5320MHz:

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

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

#### 5500~5720MHz:

12 channels are provided for 802.11a, 802.11n (HT20):

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

#### 5745~5825MHz:

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

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

### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	EUT with WiFi onboard ANT
B	√	√	-	√	EUT with WiFi external ANT

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

Note:

- The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane** (Mode A) & **Y-plane** (Mode B).
- For radiated emission (below 1GHz) and power line conducted emission test items, the worst maximum power was selected.
- "-": Means no effect.

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5
A, B	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
A, B	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	6.5
A, B	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11n (HT20)	5180-5240	36 to 48	140	OFDM	6.5
		5260-5320	52 to 64		OFDM	6.5
		5500-5720	100 to 144		OFDM	6.5
		5745-5825	149 to 165		OFDM	6.5
B	802.11n (HT20)	5180-5240	36 to 48	48	OFDM	6.5
		5260-5320	52 to 64		OFDM	6.5
		5500-5720	100 to 144		OFDM	6.5
		5745-5825	149 to 165		OFDM	6.5

**Power Line Conducted Emission Test:**

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11n (HT20)	5180-5240	36 to 48	140	OFDM	6.5
		5260-5320	52 to 64		OFDM	6.5
		5500-5720	100 to 144		OFDM	6.5
		5745-5825	149 to 165		OFDM	6.5

**Antenna Port Conducted Measurement:**

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5
A, B	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
A, B	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	6.5
A, B	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5

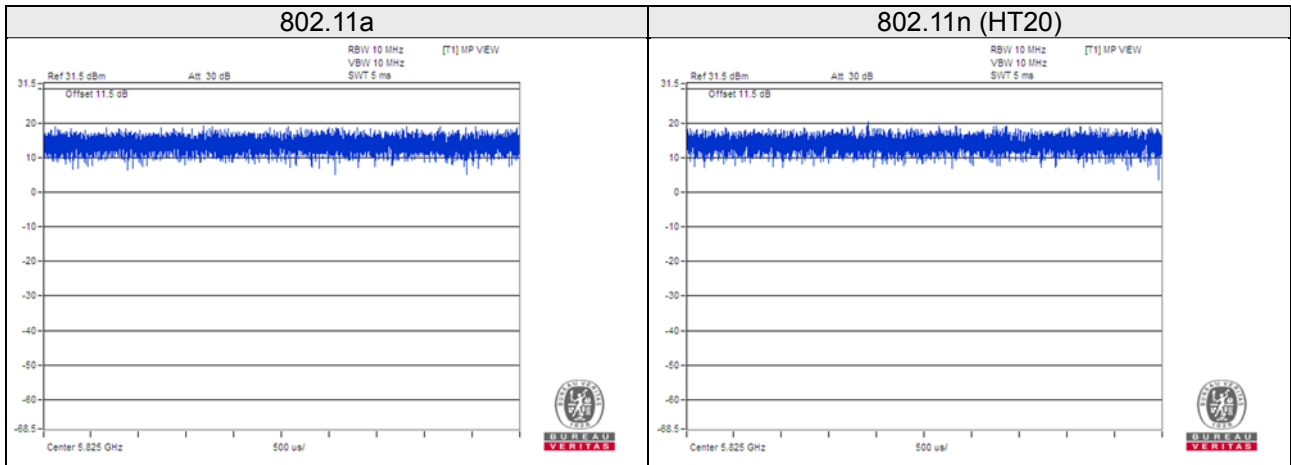
**Test Condition:**

Applicable to	Environmental Conditions	Input Power (system)	Tested by
RE $\geq$ 1G	22deg. C, 65%RH	120Vac, 60Hz	Greg Lin
RE<1G	22deg. C, 65%RH	120Vac, 60Hz	Greg Lin
PLC	23deg. C, 66%RH	120Vac, 60Hz	Titan Hsu
APCM	25deg. C, 60%RH	120Vac, 60Hz	Vincent Huang

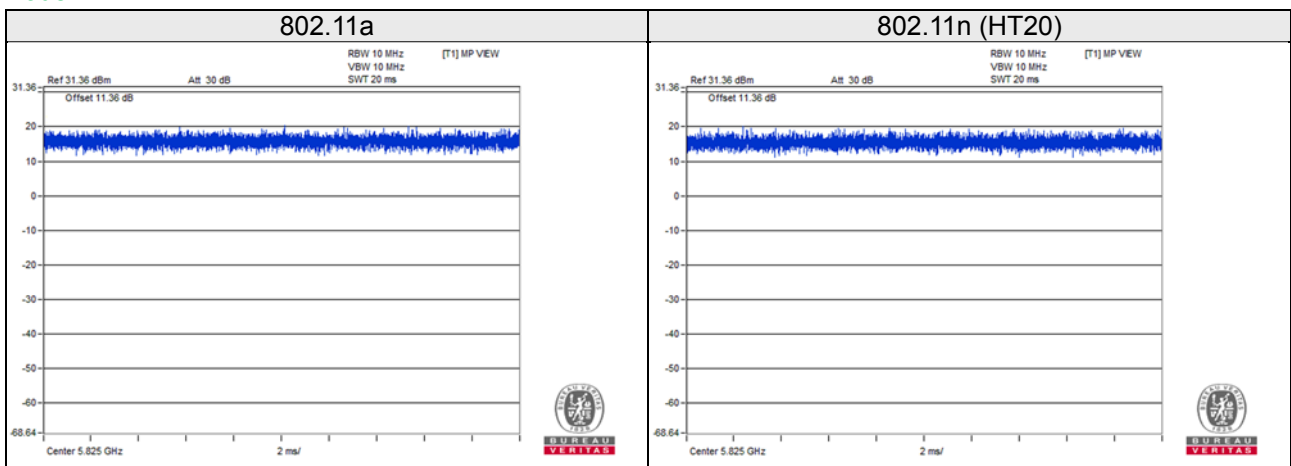
### 3.3 Duty Cycle of Test Signal

Duty cycle = 100%

#### Mode A




#### Mode B



### 3.4 Description of Support Units

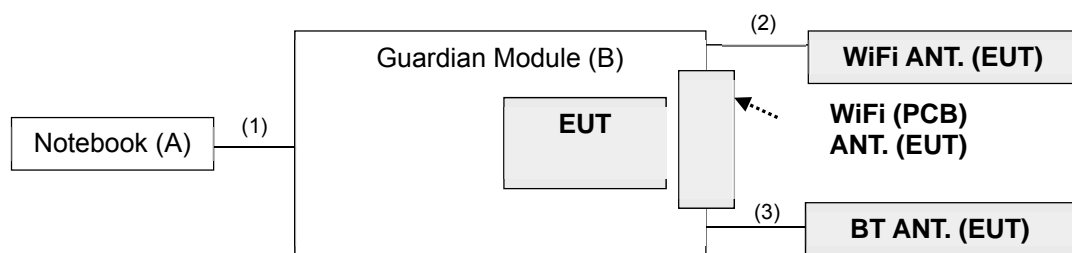
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	HP	11-u018TU	NA	FCC DoC Approved	-
B.	Guardian Module		GM-01	NA	NA	Provided by client

Note: All power cords of the above support units are non-shielded (1.8m).

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Y	0	Accessory of EUT
2.	ANT. cable	1	0.06	Y	0	Accessory of EUT (Optional)
3.	ANT. cable	1	0.07	Y	0	Accessory of EUT

#### 3.4.1 Configuration of System under Test



### 3.5 General Description of Applied Standards and References

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

#### Test standard:

**FCC Part 15, Subpart E (15.407)**

ANSI C63.10:2013

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

#### References Test Guidance:

**KDB 789033 D02 General UNII Test Procedure New Rules v02r01**

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

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**NOTE:**

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2(dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<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>*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		<sup>*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. <sup>*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

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

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

#### 4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 16, 2020	Apr. 15, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2019	Jun. 11, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 07, 2019	Nov. 06, 2020
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jul. 11, 2019	Jul. 10, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 18, 2020	Feb. 17, 2021
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	Jan. 18, 2020	Jan. 17, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jul. 11, 2019	Jul. 10, 2020
RF signal cable Woken	8D-FB	Cable-CH9-01	Jul. 30, 2019	Jul. 29, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	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/MY55190 004/MY55190007/MY55 210005	Jul. 15, 2019	Jul. 14, 2020

- 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 9.

### 4.1.3 Test Procedures

#### For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

**Note:**

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

#### For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

**Note:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz. (802.11a: RBW = 1MHz, VBW = 10Hz; 802.11n (HT20): RBW = 1MHz, VBW = 10Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

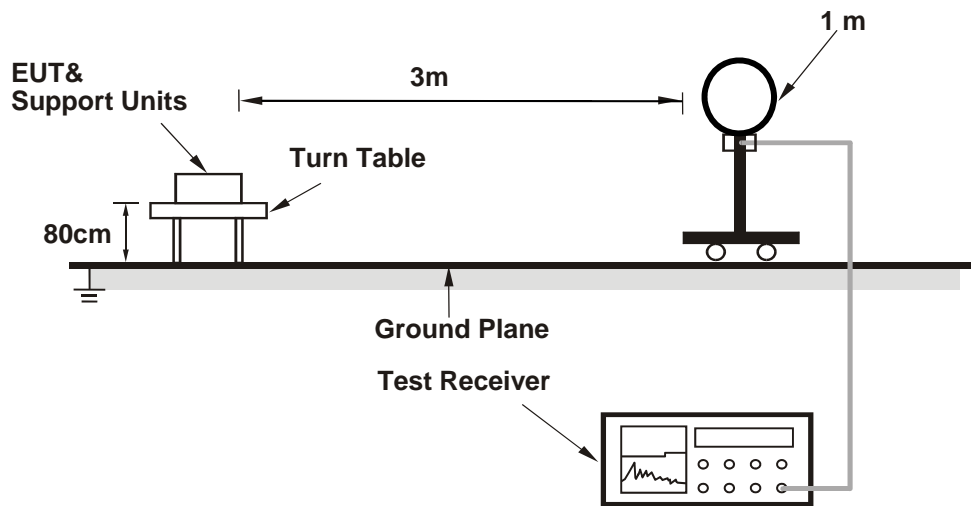


#### 4.1.4 Deviation from Test Standard

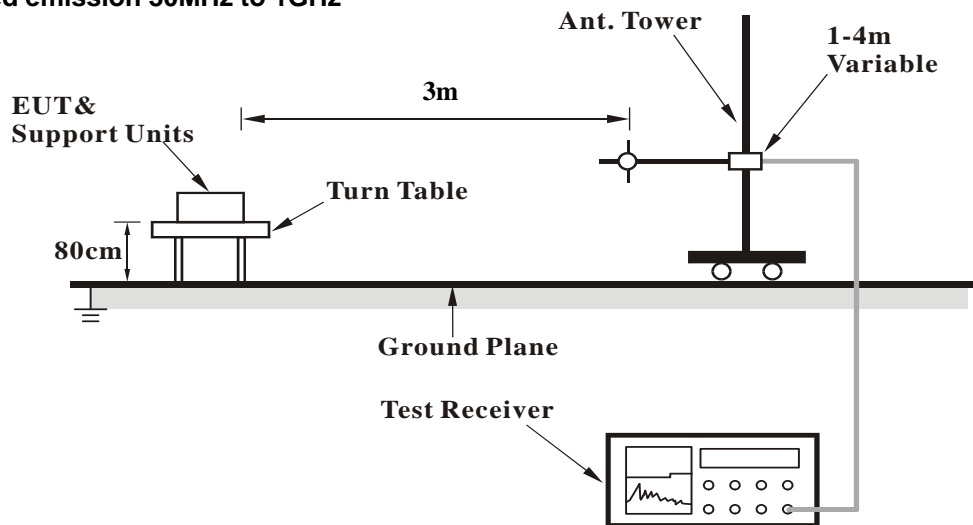
No deviation.

#### 4.1.5 Test Set Up

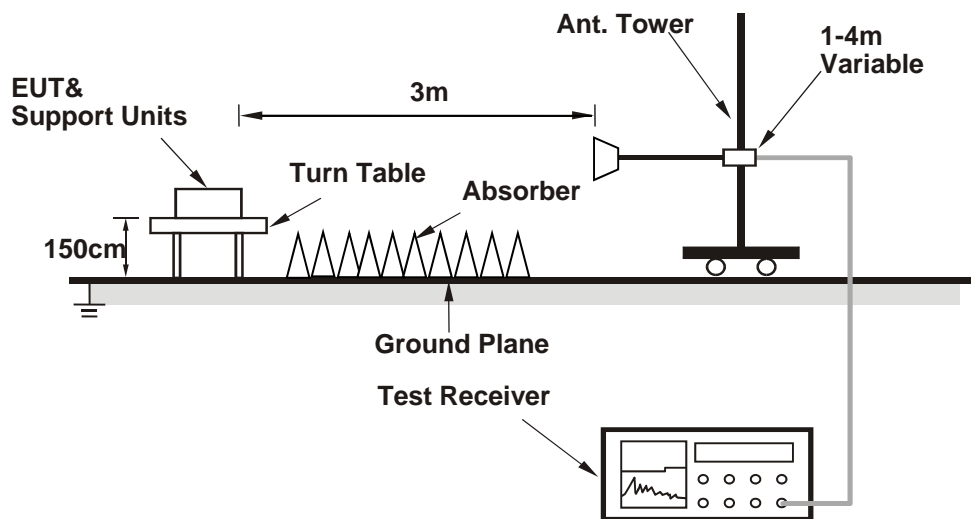
##### For Radiated emission below 30MHz



##### For Radiated emission 30MHz to 1GHz



### For Radiated emission above 1GHz



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

#### 4.1.6 EUT Operating Conditions

- a. Placed the EUT on the testing table.
- b. Set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results

Above 1GHz data:

Mode A

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	52.5 PK	74.0	-21.5	1.86 H	243	50.4	2.1
2	5150.00	39.6 AV	54.0	-14.4	1.86 H	243	37.5	2.1
3	*5180.00	102.1 PK			1.86 H	243	65.8	36.3
4	*5180.00	90.7 AV			1.86 H	243	54.4	36.3
5	#10360.00	54.9 PK	68.2	-13.3	2.03 H	307	39.8	15.1
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	5150.00	53.1 PK	74.0	-20.9	2.13 V	288	51.0	2.1
2	5150.00	41.5 AV	54.0	-12.5	2.13 V	288	39.4	2.1
3	*5180.00	106.5 PK			2.13 V	288	70.2	36.3
4	*5180.00	94.6 AV			2.13 V	288	58.3	36.3
5	#10360.00	55.7 PK	68.2	-12.5	1.54 V	269	40.6	15.1

#### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	102.4 PK			1.83 H	251	66.2	36.2
2	*5200.00	90.9 AV			1.83 H	251	54.7	36.2
3	#10400.00	55.4 PK	68.2	-12.8	1.97 H	303	40.2	15.2
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	*5200.00	106.5 PK			2.17 V	283	70.3	36.2
2	*5200.00	94.9 AV			2.17 V	283	58.7	36.2
3	#10400.00	56.1 PK	68.2	-12.1	1.56 V	272	40.9	15.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	103.0 PK			1.82 H	246	66.9	36.1
2	*5240.00	91.4 AV			1.82 H	246	55.3	36.1
3	5350.00	52.4 PK	74.0	-21.6	1.82 H	246	50.4	2.0
4	5350.00	40.3 AV	54.0	-13.7	1.82 H	246	38.3	2.0
5	#10480.00	55.4 PK	68.2	-12.8	2.06 H	314	40.3	15.1
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	*5240.00	106.9 PK			2.10 V	287	70.8	36.1
2	*5240.00	95.3 AV			2.10 V	287	59.2	36.1
3	5350.00	52.9 PK	74.0	-21.1	2.10 V	287	50.9	2.0
4	5350.00	40.8 AV	54.0	-13.2	2.10 V	287	38.8	2.0
5	#10480.00	56.3 PK	68.2	-11.9	1.55 V	273	41.2	15.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	52.3 PK	74.0	-21.7	1.82 H	253	50.2	2.1
2	5150.00	39.8 AV	54.0	-14.2	1.82 H	253	37.7	2.1
3	*5260.00	103.6 PK			1.82 H	253	67.5	36.1
4	*5260.00	91.9 AV			1.82 H	253	55.8	36.1
5	#10520.00	55.4 PK	68.2	-12.8	2.01 H	312	40.2	15.2
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	5150.00	53.0 PK	74.0	-21.0	2.22 V	290	50.9	2.1
2	5150.00	40.5 AV	54.0	-13.5	2.22 V	290	38.4	2.1
3	*5260.00	107.5 PK			2.22 V	290	71.4	36.1
4	*5260.00	95.8 AV			2.22 V	290	59.7	36.1
5	#10520.00	55.9 PK	68.2	-12.3	1.53 V	274	40.7	15.2

Remarks:

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

CHANNEL	TX Channel 60	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	*5300.00	103.9 PK			1.85 H	239	67.8	36.1
2	*5300.00	92.3 AV			1.85 H	239	56.2	36.1
3	10600.00	55.8 PK	74.0	-18.2	1.55 H	271	40.2	15.6
4	10600.00	42.4 AV	54.0	-11.6	1.55 H	271	26.8	15.6
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	*5300.00	107.8 PK			2.09 V	292	71.7	36.1
2	*5300.00	96.2 AV			2.09 V	292	60.1	36.1
3	10600.00	56.4 PK	74.0	-17.6	1.56 V	268	40.8	15.6
4	10600.00	42.9 AV	54.0	-11.1	1.56 V	268	27.3	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	102.7 PK			1.80 H	246	66.5	36.2
2	*5320.00	91.3 AV			1.80 H	246	55.1	36.2
3	5350.00	52.4 PK	74.0	-21.6	1.80 H	246	50.4	2.0
4	5350.00	40.3 AV	54.0	-13.7	1.80 H	246	38.3	2.0
5	10640.00	56.0 PK	74.0	-18.0	1.94 H	302	40.2	15.8
6	10640.00	42.3 AV	54.0	-11.7	1.94 H	302	26.5	15.8
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	*5320.00	106.5 PK			1.99 V	289	70.3	36.2
2	*5320.00	95.1 AV			1.99 V	289	58.9	36.2
3	5350.00	55.1 PK	74.0	-18.9	1.99 V	289	53.1	2.0
4	5350.00	42.2 AV	54.0	-11.8	1.99 V	289	40.2	2.0
5	10640.00	56.4 PK	74.0	-17.6	1.51 V	273	40.6	15.8
6	10640.00	42.8 AV	54.0	-11.2	1.51 V	273	27.0	15.8

Remarks:

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



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	54.1 PK	74.0	-19.9	1.71 H	242	51.4	2.7
2	5460.00	41.2 AV	54.0	-12.8	1.71 H	242	38.5	2.7
3	#5470.00	55.7 PK	68.2	-12.5	1.71 H	242	53.0	2.7
4	*5500.00	103.9 PK			1.71 H	242	66.9	37.0
5	*5500.00	92.2 AV			1.71 H	242	55.2	37.0
6	11000.00	57.3 PK	74.0	-16.7	1.96 H	304	40.4	16.9
7	11000.00	43.9 AV	54.0	-10.1	1.96 H	304	27.0	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	5460.00	55.5 PK	74.0	-18.5	1.80 V	290	52.8	2.7
2	5460.00	42.2 AV	54.0	-11.8	1.80 V	290	39.5	2.7
3	#5470.00	58.5 PK	68.2	-9.7	1.80 V	290	55.8	2.7
4	*5500.00	107.8 PK			4.00 V	290	70.8	37.0
5	*5500.00	96.0 AV			4.00 V	290	59.0	37.0
6	11000.00	58.2 PK	74.0	-15.8	1.63 V	254	41.3	16.9
7	11000.00	44.5 AV	54.0	-9.5	1.63 V	254	27.6	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	104.3 PK			1.89 H	253	67.4	36.9
2	*5580.00	92.8 AV			1.89 H	253	55.9	36.9
3	11160.00	56.0 PK	74.0	-18.0	1.99 H	317	40.3	15.7
4	11160.00	42.9 AV	54.0	-11.1	1.99 H	317	27.2	15.7
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	*5580.00	108.3 PK			1.76 V	289	71.4	36.9
2	*5580.00	96.7 AV			1.76 V	289	59.8	36.9
3	11160.00	57.0 PK	74.0	-17.0	1.52 V	276	41.3	15.7
4	11160.00	43.1 AV	54.0	-10.9	1.52 V	276	27.4	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	104.9 PK			1.67 H	236	67.7	37.2
2	*5700.00	93.3 AV			1.67 H	236	56.1	37.2
3	#5725.00	64.7 PK	68.2	-3.5	1.67 H	236	61.8	2.9
4	11400.00	56.2 PK	74.0	-17.8	2.03 H	316	40.3	15.9
5	11400.00	42.8 AV	54.0	-11.2	2.03 H	316	26.9	15.9
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	*5700.00	108.8 PK			1.71 V	290	71.6	37.2
2	*5700.00	97.2 AV			1.71 V	290	60.0	37.2
3	#5725.00	<b>67.7 PK</b>	<b>68.2</b>	<b>-0.5</b>	<b>1.71 V</b>	<b>290</b>	<b>64.8</b>	<b>2.9</b>
4	11400.00	57.1 PK	74.0	-16.9	1.64 V	277	41.2	15.9
5	11400.00	43.5 AV	54.0	-10.5	1.64 V	277	27.6	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	#5470.00	53.3 PK	68.2	-14.9	1.73 H	242	50.6	2.7
2	*5720.00	105.5 PK			1.73 H	242	68.3	37.2
3	*5720.00	93.9 AV			1.73 H	242	56.7	37.2
4	#5850.00	52.5 PK	68.2	-15.7	1.73 H	242	49.2	3.3
5	11440.00	56.1 PK	74.0	-17.9	2.03 H	315	40.5	15.6
6	11440.00	42.9 AV	54.0	-11.1	2.03 H	315	27.3	15.6
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	#5470.00	53.0 PK	68.2	-15.2	1.81 V	288	50.3	2.7
2	*5720.00	109.5 PK			1.81 V	288	72.3	37.2
3	*5720.00	97.9 AV			1.81 V	288	60.7	37.2
4	#5850.00	52.9 PK	68.2	-15.3	1.81 V	288	49.6	3.3
5	11440.00	57.0 PK	74.0	-17.0	1.62 V	261	41.4	15.6
6	11440.00	43.4 AV	54.0	-10.6	1.62 V	261	27.8	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

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	#5616.80	55.1 PK	68.2	-13.1	1.70 H	246	52.5	2.6
2	*5745.00	104.6 PK			1.70 H	246	67.3	37.3
3	*5745.00	93.2 AV			1.70 H	246	55.9	37.3
4	#5996.00	55.4 PK	68.2	-12.8	1.70 H	246	52.1	3.3
5	11490.00	55.8 PK	74.0	-18.2	2.07 H	301	40.3	15.5
6	11490.00	42.2 AV	54.0	-11.8	2.07 H	301	26.7	15.5
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	#5623.20	55.7 PK	68.2	-12.5	1.79 V	285	53.1	2.6
2	*5745.00	108.5 PK			1.79 V	285	71.2	37.3
3	*5745.00	97.1 AV			1.79 V	285	59.8	37.3
4	#5950.40	54.5 PK	68.2	-13.7	1.79 V	285	51.2	3.3
5	11490.00	56.3 PK	74.0	-17.7	1.63 V	274	40.8	15.5
6	11490.00	42.9 AV	54.0	-11.1	1.63 V	274	27.4	15.5

Remarks:

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

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	#5632.80	54.6 PK	68.2	-13.6	1.69 H	241	52.0	2.6
2	*5785.00	103.2 PK			1.69 H	241	65.7	37.5
3	*5785.00	91.8 AV			1.69 H	241	54.3	37.5
4	#5983.20	54.4 PK	68.2	-13.8	1.69 H	241	51.1	3.3
5	11570.00	55.4 PK	74.0	-18.6	1.96 H	297	40.2	15.2
6	11570.00	42.0 AV	54.0	-12.0	1.96 H	297	26.8	15.2
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	#5624.80	54.8 PK	68.2	-13.4	1.77 V	286	52.2	2.6
2	*5785.00	107.2 PK			1.77 V	286	69.7	37.5
3	*5785.00	95.8 AV			1.77 V	286	58.3	37.5
4	#5928.80	54.3 PK	68.2	-13.9	1.77 V	286	51.0	3.3
5	11570.00	56.1 PK	74.0	-17.9	1.61 V	279	40.9	15.2
6	11570.00	42.7 AV	54.0	-11.3	1.61 V	279	27.5	15.2

Remarks:

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

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	#5630.40	54.8 PK	68.2	-13.4	1.79 H	249	52.2	2.6
2	*5825.00	103.5 PK			1.79 H	249	66.1	37.4
3	*5825.00	92.0 AV			1.79 H	249	54.6	37.4
4	#5995.20	54.6 PK	68.2	-13.6	1.79 H	249	51.3	3.3
5	11650.00	55.5 PK	74.0	-18.5	1.94 H	293	40.3	15.2
6	11650.00	42.0 AV	54.0	-12.0	1.94 H	293	26.8	15.2

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	#5616.80	54.7 PK	68.2	-13.5	1.82 V	285	52.1	2.6
2	*5825.00	107.5 PK			1.82 V	285	70.1	37.4
3	*5825.00	96.1 AV			1.82 V	285	58.7	37.4
4	#5936.00	54.5 PK	68.2	-13.7	1.82 V	285	51.2	3.3
5	11650.00	55.9 PK	74.0	-18.1	1.48 V	257	40.7	15.2
6	11650.00	42.5 AV	54.0	-11.5	1.48 V	257	27.3	15.2

Remarks:

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

## 802.11n (HT20)

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

## ANTENNA POLARITY &amp; 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	52.7 PK	74.0	-21.3	1.92 H	247	50.6	2.1
2	5150.00	39.9 AV	54.0	-14.1	1.92 H	247	37.8	2.1
3	*5180.00	102.2 PK			1.92 H	247	65.9	36.3
4	*5180.00	90.8 AV			1.92 H	247	54.5	36.3
5	#10360.00	54.9 PK	68.2	-13.3	1.96 H	324	39.8	15.1

## ANTENNA POLARITY &amp; 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	53.3 PK	74.0	-20.7	2.14 V	291	51.2	2.1
2	5150.00	41.0 AV	54.0	-13.0	2.14 V	291	38.9	2.1
3	*5180.00	106.1 PK			2.14 V	291	69.8	36.3
4	*5180.00	94.7 AV			2.14 V	291	58.4	36.3
5	#10360.00	55.7 PK	68.2	-12.5	1.63 V	264	40.6	15.1

## Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	102.3 PK			1.83 H	245	66.1	36.2
2	*5200.00	90.9 AV			1.83 H	245	54.7	36.2
3	#10400.00	55.4 PK	68.2	-12.8	2.06 H	307	40.2	15.2
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	*5200.00	106.4 PK			2.08 V	293	70.2	36.2
2	*5200.00	94.9 AV			2.08 V	293	58.7	36.2
3	#10400.00	55.9 PK	68.2	-12.3	1.59 V	266	40.7	15.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	102.9 PK			1.91 H	238	66.8	36.1
2	*5240.00	91.3 AV			1.91 H	238	55.2	36.1
3	5350.00	52.3 PK	74.0	-21.7	1.91 H	238	50.3	2.0
4	5350.00	39.8 AV	54.0	-14.2	1.91 H	238	37.8	2.0
5	#10480.00	55.5 PK	68.2	-12.7	2.01 H	315	40.4	15.1
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	*5240.00	107.0 PK			1.92 V	291	70.9	36.1
2	*5240.00	95.2 AV			1.92 V	291	59.1	36.1
3	5350.00	52.8 PK	74.0	-21.2	1.92 V	291	50.8	2.0
4	5350.00	40.6 AV	54.0	-13.4	1.92 V	291	38.6	2.0
5	#10480.00	56.2 PK	68.2	-12.0	1.53 V	274	41.1	15.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	52.3 PK	74.0	-21.7	1.89 H	240	50.2	2.1
2	5150.00	39.9 AV	54.0	-14.1	1.89 H	240	37.8	2.1
3	*5260.00	103.2 PK			1.89 H	240	67.1	36.1
4	*5260.00	92.0 AV			1.89 H	240	55.9	36.1
5	#10520.00	55.3 PK	68.2	-12.9	2.12 H	302	40.1	15.2

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	5150.00	52.7 PK	74.0	-21.3	2.19 V	289	50.6	2.1
2	5150.00	40.7 AV	54.0	-13.3	2.19 V	289	38.6	2.1
3	*5260.00	107.2 PK			2.19 V	289	71.1	36.1
4	*5260.00	96.2 AV			2.19 V	289	60.1	36.1
5	#10520.00	55.8 PK	68.2	-12.4	1.55 V	273	40.6	15.2

Remarks:

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

CHANNEL	TX Channel 60	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	*5300.00	103.8 PK			1.93 H	252	67.7	36.1
2	*5300.00	92.4 AV			1.93 H	252	56.3	36.1
3	10600.00	55.8 PK	74.0	-18.2	2.13 H	307	40.2	15.6
4	10600.00	42.1 AV	54.0	-11.9	2.13 H	307	26.5	15.6

**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	*5300.00	107.7 PK			2.08 V	283	71.6	36.1
2	*5300.00	96.4 AV			2.08 V	283	60.3	36.1
3	10600.00	56.4 PK	74.0	-17.6	1.62 V	278	40.8	15.6
4	10600.00	42.9 AV	54.0	-11.1	1.62 V	278	27.3	15.6

**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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	102.6 PK			1.76 H	238	66.4	36.2
2	*5320.00	91.3 AV			1.76 H	238	55.1	36.2
3	5350.00	52.6 PK	74.0	-21.4	1.76 H	238	50.6	2.0
4	5350.00	40.4 AV	54.0	-13.6	1.76 H	238	38.4	2.0
5	10640.00	56.2 PK	74.0	-17.8	2.02 H	306	40.4	15.8
6	10640.00	42.6 AV	54.0	-11.4	2.02 H	306	26.8	15.8

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	*5320.00	106.4 PK			1.98 V	289	70.2	36.2
2	*5320.00	95.1 AV			1.98 V	289	58.9	36.2
3	5350.00	56.2 PK	74.0	-17.8	1.98 V	289	54.2	2.0
4	5350.00	42.3 AV	54.0	-11.7	1.98 V	289	40.3	2.0
5	10640.00	57.0 PK	74.0	-17.0	1.62 V	277	41.2	15.8
6	10640.00	43.3 AV	54.0	-10.7	1.62 V	277	27.5	15.8

Remarks:

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

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	54.3 PK	74.0	-19.7	1.74 H	232	51.6	2.7
2	5460.00	41.3 AV	54.0	-12.7	1.74 H	232	38.6	2.7
3	#5470.00	57.0 PK	68.2	-11.2	1.74 H	232	54.3	2.7
4	*5500.00	69.7 PK			1.74 H	232	66.7	3.0
5	*5500.00	58.0 AV			1.74 H	232	55.0	3.0
6	11000.00	57.2 PK	74.0	-16.8	2.12 H	302	40.3	16.9
7	11000.00	43.7 AV	54.0	-10.3	2.12 H	302	26.8	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	5460.00	56.9 PK	74.0	-17.1	1.82 V	290	54.2	2.7
2	5460.00	43.3 AV	54.0	-10.7	1.82 V	290	40.6	2.7
3	#5470.00	59.8 PK	68.2	-8.4	1.82 V	290	57.1	2.7
4	*5500.00	107.6 PK			1.82 V	290	70.6	37.0
5	*5500.00	95.9 AV			1.82 V	290	58.9	37.0
6	11000.00	57.7 PK	74.0	-16.3	1.63 V	254	40.8	16.9
7	11000.00	44.2 AV	54.0	-9.8	1.63 V	254	27.3	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	104.0 PK			1.73 H	231	67.1	36.9
2	*5580.00	92.3 AV			1.73 H	231	55.4	36.9
3	11160.00	56.1 PK	74.0	-17.9	1.97 H	306	40.4	15.7
4	11160.00	42.6 AV	54.0	-11.4	1.97 H	306	26.9	15.7

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	*5580.00	107.8 PK			1.94 V	281	70.9	36.9
2	*5580.00	96.2 AV			1.94 V	281	59.3	36.9
3	11160.00	56.9 PK	74.0	-17.1	1.48 V	256	41.2	15.7
4	11160.00	43.3 AV	54.0	-10.7	1.48 V	256	27.6	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	104.7 PK			1.76 H	233	67.5	37.2
2	*5700.00	93.1 AV			1.76 H	233	55.9	37.2
3	#5725.00	63.2 PK	68.2	-5.0	1.76 H	233	60.3	2.9
4	11400.00	56.1 PK	74.0	-17.9	1.94 H	302	40.2	15.9
5	11400.00	42.5 AV	54.0	-11.5	1.94 H	302	26.6	15.9

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	*5700.00	108.6 PK			1.85 V	289	71.4	37.2
2	*5700.00	97.1 AV			1.85 V	289	59.9	37.2
3	#5725.00	66.1 PK	68.2	-2.1	1.85 V	289	63.2	2.9
4	11400.00	56.6 PK	74.0	-17.4	1.55 V	261	40.7	15.9
5	11400.00	43.1 AV	54.0	-10.9	1.55 V	261	27.2	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	#5470.00	52.6 PK	68.2	-15.6	1.72 H	237	49.9	2.7
2	*5720.00	105.0 PK			1.72 H	237	67.8	37.2
3	*5720.00	93.5 AV			1.72 H	237	56.3	37.2
4	#5850.00	52.7 PK	68.2	-15.5	1.72 H	237	49.4	3.3
5	11440.00	55.9 PK	74.0	-18.1	1.96 H	318	40.3	15.6
6	11440.00	42.3 AV	54.0	-11.7	1.96 H	318	26.7	15.6
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	#5470.00	53.3 PK	68.2	-14.9	1.82 V	289	50.6	2.7
2	*5720.00	109.0 PK			1.82 V	289	71.8	37.2
3	*5720.00	97.4 AV			1.82 V	289	60.2	37.2
4	#5850.00	53.4 PK	68.2	-14.8	1.82 V	289	50.1	3.3
5	11440.00	56.6 PK	74.0	-17.4	1.66 V	257	41.0	15.6
6	11440.00	43.0 AV	54.0	-11.0	1.66 V	257	27.4	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

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	#5636.00	54.1 PK	68.2	-14.1	1.71 H	243	51.5	2.6
2	*5745.00	104.4 PK			1.71 H	243	67.1	37.3
3	*5745.00	92.9 AV			1.71 H	243	55.6	37.3
4	#5989.60	54.4 PK	68.2	-13.8	1.71 H	243	51.1	3.3
5	11490.00	55.3 PK	74.0	-18.7	1.95 H	293	39.8	15.5
6	11490.00	42.1 AV	54.0	-11.9	1.95 H	293	26.6	15.5
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	#5631.20	54.5 PK	68.2	-13.7	1.77 V	287	51.9	2.6
2	*5745.00	108.4 PK			1.77 V	287	71.1	37.3
3	*5745.00	96.9 AV			1.77 V	287	59.6	37.3
4	#5956.00	54.5 PK	68.2	-13.7	1.77 V	287	51.2	3.3
5	11490.00	56.1 PK	74.0	-17.9	1.46 V	254	40.6	15.5
6	11490.00	42.7 AV	54.0	-11.3	1.46 V	254	27.2	15.5

Remarks:

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

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	#5612.80	54.3 PK	68.2	-13.9	1.68 H	248	51.7	2.6
2	*5785.00	103.4 PK			1.68 H	248	65.9	37.5
3	*5785.00	92.0 AV			1.68 H	248	54.5	37.5
4	#5982.40	54.5 PK	68.2	-13.7	1.68 H	248	51.2	3.3
5	11570.00	55.1 PK	74.0	-18.9	1.92 H	302	39.9	15.2
6	11570.00	41.9 AV	54.0	-12.1	1.92 H	302	26.7	15.2

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	#5633.60	55.4 PK	68.2	-12.8	1.81 V	287	52.8	2.6
2	*5785.00	107.4 PK			1.81 V	287	69.9	37.5
3	*5785.00	95.9 AV			1.81 V	287	58.4	37.5
4	#5927.20	54.7 PK	68.2	-13.5	1.81 V	287	51.4	3.3
5	11570.00	55.8 PK	74.0	-18.2	1.66 V	254	40.6	15.2
6	11570.00	42.2 AV	54.0	-11.8	1.66 V	254	27.0	15.2

Remarks:

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

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	#5606.40	54.8 PK	68.2	-13.4	1.70 H	249	52.2	2.6
2	*5825.00	103.3 PK			1.70 H	249	65.9	37.4
3	*5825.00	91.8 AV			1.70 H	249	54.4	37.4
4	#5935.20	55.0 PK	68.2	-13.2	1.70 H	249	51.7	3.3
5	11650.00	54.9 PK	74.0	-19.1	1.91 H	305	39.7	15.2
6	11650.00	41.6 AV	54.0	-12.4	1.91 H	305	26.4	15.2

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	#5600.80	54.8 PK	68.2	-13.4	1.83 V	285	52.2	2.6
2	*5825.00	107.2 PK			1.83 V	285	69.8	37.4
3	*5825.00	95.7 AV			1.83 V	285	58.3	37.4
4	#5989.60	54.2 PK	68.2	-14.0	1.83 V	285	50.9	3.3
5	11650.00	55.7 PK	74.0	-18.3	1.44 V	252	40.5	15.2
6	11650.00	42.3 AV	54.0	-11.7	1.44 V	252	27.1	15.2

Remarks:

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

Mode B

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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	52.3 PK	74.0	-21.7	1.37 H	315	50.2	2.1
2	5150.00	40.9 AV	54.0	-13.1	1.37 H	315	38.8	2.1
3	*5180.00	104.9 PK			1.37 H	315	68.6	36.3
4	*5180.00	93.2 AV			1.37 H	315	56.9	36.3
5	#10360.00	56.0 PK	68.2	-12.2	2.16 H	308	40.9	15.1

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	5150.00	51.9 PK	74.0	-22.1	3.53 V	302	49.8	2.1
2	5150.00	39.9 AV	54.0	-14.1	3.53 V	302	37.8	2.1
3	*5180.00	102.8 PK			3.53 V	302	66.5	36.3
4	*5180.00	91.1 AV			3.53 V	302	54.8	36.3
5	#10360.00	55.4 PK	68.2	-12.8	1.56 V	227	40.3	15.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	105.1 PK			1.43 H	309	68.9	36.2
2	*5200.00	93.4 AV			1.43 H	309	57.2	36.2
3	#10400.00	56.3 PK	68.2	-11.9	2.23 H	314	41.1	15.2
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	*5200.00	103.1 PK			3.46 V	297	66.9	36.2
2	*5200.00	91.4 AV			3.46 V	297	55.2	36.2
3	#10400.00	55.6 PK	68.2	-12.6	1.67 V	214	40.4	15.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	106.7 PK			1.10 H	312	70.6	36.1
2	*5240.00	95.0 AV			1.10 H	312	58.9	36.1
3	5350.00	53.2 PK	74.0	-20.8	1.10 H	312	51.2	2.0
4	5350.00	42.3 AV	54.0	-11.7	1.10 H	312	40.3	2.0
5	#10480.00	56.4 PK	68.2	-11.8	2.18 H	314	41.3	15.1
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	*5240.00	104.6 PK			3.42 V	296	68.5	36.1
2	*5240.00	92.9 AV			3.42 V	296	56.8	36.1
3	5350.00	51.7 PK	74.0	-22.3	3.42 V	296	49.7	2.0
4	5350.00	39.9 AV	54.0	-14.1	3.42 V	296	37.9	2.0
5	#10480.00	55.5 PK	68.2	-12.7	1.47 V	216	40.4	15.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	52.7 PK	74.0	-21.3	1.20 H	313	50.6	2.1
2	5150.00	41.0 AV	54.0	-13.0	1.20 H	313	38.9	2.1
3	*5260.00	105.9 PK			1.20 H	313	69.8	36.1
4	*5260.00	94.4 AV			1.20 H	313	58.3	36.1
5	#10520.00	55.9 PK	68.2	-12.3	2.26 H	317	40.7	15.2

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	5150.00	51.9 PK	74.0	-22.1	3.48 V	297	49.8	2.1
2	5150.00	39.8 AV	54.0	-14.2	3.48 V	297	37.7	2.1
3	*5260.00	103.8 PK			3.48 V	297	67.7	36.1
4	*5260.00	92.3 AV			3.48 V	297	56.2	36.1
5	#10520.00	55.3 PK	68.2	-12.9	1.55 V	218	40.1	15.2

Remarks:

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



CHANNEL	TX Channel 60	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	*5300.00	106.3 PK			1.26 H	314	70.2	36.1
2	*5300.00	94.8 AV			1.26 H	314	58.7	36.1
3	10600.00	56.3 PK	74.0	-17.7	2.23 H	312	40.7	15.6
4	10600.00	42.8 AV	54.0	-11.2	2.23 H	312	27.2	15.6
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	*5300.00	104.3 PK			3.56 V	298	68.2	36.1
2	*5300.00	92.7 AV			3.56 V	298	56.6	36.1
3	10600.00	55.8 PK	74.0	-18.2	1.57 V	221	40.2	15.6
4	10600.00	42.3 AV	54.0	-11.7	1.57 V	221	26.7	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	105.1 PK			1.24 H	313	68.9	36.2
2	*5320.00	93.6 AV			1.24 H	313	57.4	36.2
3	5350.00	53.9 PK	74.0	-20.1	1.24 H	313	51.9	2.0
4	5350.00	42.3 AV	54.0	-11.7	1.24 H	313	40.3	2.0
5	10640.00	56.6 PK	74.0	-17.4	2.21 H	312	40.8	15.8
6	10640.00	43.1 AV	54.0	-10.9	2.21 H	312	27.3	15.8
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	*5320.00	103.1 PK			3.48 V	309	66.9	36.2
2	*5320.00	91.7 AV			3.48 V	309	55.5	36.2
3	5350.00	52.2 PK	74.0	-21.8	3.48 V	309	50.2	2.0
4	5350.00	41.7 AV	54.0	-12.3	3.48 V	309	39.7	2.0
5	10640.00	56.1 PK	74.0	-17.9	1.48 V	215	40.3	15.8
6	10640.00	42.6 AV	54.0	-11.4	1.48 V	215	26.8	15.8

Remarks:

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

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	54.8 PK	74.0	-19.2	1.52 H	328	52.1	2.7
2	5460.00	42.9 AV	54.0	-11.1	1.52 H	328	40.2	2.7
3	#5470.00	57.0 PK	68.2	-11.2	1.52 H	328	54.3	2.7
4	*5500.00	104.4 PK			1.52 H	328	67.4	37.0
5	*5500.00	92.7 AV			1.52 H	328	55.7	37.0
6	11000.00	57.7 PK	74.0	-16.3	2.26 H	317	40.8	16.9
7	11000.00	44.3 AV	54.0	-9.7	2.26 H	317	27.4	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	5460.00	53.1 PK	74.0	-20.9	3.52 V	304	50.4	2.7
2	5460.00	42.3 AV	54.0	-11.7	3.52 V	304	39.6	2.7
3	#5470.00	55.3 PK	68.2	-12.9	3.52 V	304	52.6	2.7
4	*5500.00	102.4 PK			3.52 V	304	65.4	37.0
5	*5500.00	90.7 AV			3.52 V	304	53.7	37.0
6	11000.00	57.1 PK	74.0	-16.9	1.59 V	218	40.2	16.9
7	11000.00	43.6 AV	54.0	-10.4	1.59 V	218	26.7	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	104.6 PK			1.43 H	322	67.7	36.9
2	*5580.00	93.1 AV			1.43 H	322	56.2	36.9
3	11160.00	56.4 PK	74.0	-17.6	2.12 H	316	40.7	15.7
4	11160.00	43.0 AV	54.0	-11.0	2.12 H	316	27.3	15.7

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	*5580.00	102.6 PK			3.47 V	294	65.7	36.9
2	*5580.00	91.1 AV			3.47 V	294	54.2	36.9
3	11160.00	55.9 PK	74.0	-18.1	1.64 V	235	40.2	15.7
4	11160.00	42.5 AV	54.0	-11.5	1.64 V	235	26.8	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	106.0 PK			1.22 H	319	68.8	37.2
2	*5700.00	94.6 AV			1.22 H	319	57.4	37.2
3	#5725.00	62.7 PK	68.2	-5.5	1.22 H	319	59.8	2.9
4	11400.00	57.0 PK	74.0	-17.0	2.07 H	305	41.1	15.9
5	11400.00	43.4 AV	54.0	-10.6	2.07 H	305	27.5	15.9

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	*5700.00	103.8 PK			3.53 V	294	66.6	37.2
2	*5700.00	92.4 AV			3.53 V	294	55.2	37.2
3	#5725.00	58.2 PK	68.2	-10.0	3.53 V	294	55.3	2.9
4	11400.00	56.2 PK	74.0	-17.8	1.42 V	215	40.3	15.9
5	11400.00	42.7 AV	54.0	-11.3	1.42 V	215	26.8	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	#5470.00	53.1 PK	68.2	-15.1	1.31 H	319	50.4	2.7
2	*5720.00	105.7 PK			1.31 H	319	68.5	37.2
3	*5720.00	94.1 AV			1.31 H	319	56.9	37.2
4	#5850.00	53.8 PK	68.2	-14.4	1.31 H	319	50.5	3.3
5	11440.00	56.4 PK	74.0	-17.6	2.21 H	313	40.8	15.6
6	11440.00	42.9 AV	54.0	-11.1	2.21 H	313	27.3	15.6
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	#5470.00	52.4 PK	74.0	-21.6	3.51 V	295	49.7	2.7
2	*5720.00	103.6 PK			3.51 V	295	66.4	37.2
3	*5720.00	92.0 AV			3.51 V	295	54.8	37.2
4	#5850.00	53.2 PK	74.0	-20.8	3.51 V	295	49.9	3.3
5	11440.00	55.4 PK	74.0	-18.6	1.46 V	223	39.8	15.6
6	11440.00	42.0 AV	54.0	-12.0	1.46 V	223	26.4	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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 &amp; 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	#5605.60	54.8 PK	68.2	-13.4	1.27 H	320	52.2	2.6
2	*5745.00	105.9 PK			1.27 H	320	68.6	37.3
3	*5745.00	94.2 AV			1.27 H	320	56.9	37.3
4	#5935.20	53.8 PK	68.2	-14.4	1.27 H	320	50.5	3.3
5	11490.00	56.4 PK	74.0	-17.6	2.21 H	313	40.9	15.5
6	11490.00	43.0 AV	54.0	-11.0	2.21 H	313	27.5	15.5

## ANTENNA POLARITY &amp; 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	#5608.00	54.4 PK	68.2	-13.8	3.57 V	302	51.8	2.6
2	*5745.00	103.9 PK			3.57 V	302	66.6	37.3
3	*5745.00	94.1 AV			3.57 V	302	56.8	37.3
4	#5957.60	54.2 PK	68.2	-14.0	3.57 V	302	50.9	3.3
5	11490.00	55.8 PK	74.0	-18.2	1.46 V	217	40.3	15.5
6	11490.00	42.4 AV	54.0	-11.6	1.46 V	217	26.9	15.5

## Remarks:

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

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	#5608.00	54.1 PK	68.2	-14.1	1.31 H	318	51.5	2.6
2	*5785.00	104.8 PK			1.31 H	318	67.3	37.5
3	*5785.00	93.2 AV			1.31 H	318	55.7	37.5
4	#5977.60	54.2 PK	68.2	-14.0	1.31 H	318	50.9	3.3
5	11570.00	56.0 PK	74.0	-18.0	2.08 H	315	40.8	15.2
6	11570.00	42.6 AV	54.0	-11.4	2.08 H	315	27.4	15.2

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	#5645.60	55.2 PK	68.2	-13.0	3.52 V	307	52.5	2.7
2	*5785.00	102.9 PK			3.52 V	307	65.4	37.5
3	*5785.00	91.3 AV			3.52 V	307	53.8	37.5
4	#5927.20	54.6 PK	68.2	-13.6	3.52 V	307	51.3	3.3
5	11570.00	55.4 PK	74.0	-18.6	1.53 V	227	40.2	15.2
6	11570.00	41.8 AV	54.0	-12.2	1.53 V	227	26.6	15.2

Remarks:

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



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	#5624.80	53.9 PK	68.2	-14.3	1.40 H	318	51.3	2.6
2	*5825.00	104.5 PK			1.40 H	318	67.1	37.4
3	*5825.00	92.9 AV			1.40 H	318	55.5	37.4
4	#5960.80	54.8 PK	68.2	-13.4	1.40 H	318	51.5	3.3
5	11650.00	56.0 PK	74.0	-18.0	2.18 H	309	40.8	15.2
6	11650.00	42.5 AV	54.0	-11.5	2.18 H	309	27.3	15.2
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	#5613.60	53.9 PK	68.2	-14.3	3.61 V	297	51.3	2.6
2	*5825.00	102.5 PK			3.61 V	297	65.1	37.4
3	*5825.00	90.9 AV			3.61 V	297	53.5	37.4
4	#5956.00	54.2 PK	68.2	-14.0	3.61 V	297	50.9	3.3
5	11650.00	55.3 PK	74.0	-18.7	1.49 V	206	40.1	15.2
6	11650.00	41.7 AV	54.0	-12.3	1.49 V	206	26.5	15.2

Remarks:

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

## 802.11n (HT20)

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

## ANTENNA POLARITY &amp; 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	52.5 PK	74.0	-21.5	1.25 H	315	50.4	2.1
2	5150.00	40.8 AV	54.0	-13.2	1.25 H	315	38.7	2.1
3	*5180.00	104.1 PK			1.25 H	315	67.8	36.3
4	*5180.00	92.8 AV			1.25 H	315	56.5	36.3
5	#10360.00	55.9 PK	68.2	-12.3	2.27 H	304	40.8	15.1

## ANTENNA POLARITY &amp; 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	51.8 PK	74.0	-22.2	3.53 V	307	49.7	2.1
2	5150.00	39.7 AV	54.0	-14.3	3.53 V	307	37.6	2.1
3	*5180.00	102.1 PK			3.53 V	307	65.8	36.3
4	*5180.00	90.8 AV			3.53 V	307	54.5	36.3
5	#10360.00	55.3 PK	68.2	-12.9	1.62 V	215	40.2	15.1

## Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	104.4 PK			1.32 H	311	68.2	36.2
2	*5200.00	93.1 AV			1.32 H	311	56.9	36.2
3	#10400.00	56.2 PK	68.2	-12.0	2.23 H	317	41.0	15.2
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	*5200.00	102.4 PK			3.57 V	306	66.2	36.2
2	*5200.00	91.0 AV			3.57 V	306	54.8	36.2
3	#10400.00	55.5 PK	68.2	-12.7	1.43 V	219	40.3	15.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	106.8 PK			1.26 H	313	70.7	36.1
2	*5240.00	95.1 AV			1.26 H	313	59.0	36.1
3	5350.00	52.6 PK	74.0	-21.4	1.26 H	313	50.6	2.0
4	5350.00	42.4 AV	54.0	-11.6	1.26 H	313	40.4	2.0
5	#10480.00	55.8 PK	68.2	-12.4	2.19 H	301	40.7	15.1

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	*5240.00	104.9 PK			3.41 V	294	68.8	36.1
2	*5240.00	93.2 AV			3.41 V	294	57.1	36.1
3	5350.00	51.9 PK	74.0	-22.1	3.41 V	294	49.9	2.0
4	5350.00	41.8 AV	54.0	-12.2	3.41 V	294	39.8	2.0
5	#10480.00	55.2 PK	68.2	-13.0	1.53 V	227	40.1	15.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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 &amp; 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	52.0 PK	74.0	-22.0	1.31 H	330	49.9	2.1
2	5150.00	39.4 AV	54.0	-14.6	1.31 H	330	37.3	2.1
3	*5260.00	102.5 PK			1.31 H	330	66.4	36.1
4	*5260.00	91.5 AV			1.31 H	330	55.4	36.1
5	#10520.00	55.9 PK	68.2	-12.3	2.21 H	317	40.7	15.2

## ANTENNA POLARITY &amp; 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	51.8 PK	74.0	-22.2	3.46 V	297	49.7	2.1
2	5150.00	39.7 AV	54.0	-14.3	3.46 V	297	37.6	2.1
3	*5260.00	101.0 PK			3.46 V	297	64.9	36.1
4	*5260.00	89.6 AV			3.46 V	297	53.5	36.1
5	#10520.00	55.3 PK	68.2	-12.9	1.56 V	212	40.1	15.2

## Remarks:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

## ANTENNA POLARITY &amp; 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	*5300.00	103.4 PK			1.27 H	326	67.3	36.1
2	*5300.00	92.0 AV			1.27 H	326	55.9	36.1
3	10600.00	56.8 PK	74.0	-17.2	2.23 H	315	41.2	15.6
4	10600.00	43.0 AV	54.0	-11.0	2.23 H	315	27.4	15.6

## ANTENNA POLARITY &amp; 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	*5300.00	101.4 PK			3.52 V	301	65.3	36.1
2	*5300.00	90.0 AV			3.52 V	301	53.9	36.1
3	10600.00	55.9 PK	74.0	-18.1	1.53 V	228	40.3	15.6
4	10600.00	42.5 AV	54.0	-11.5	1.53 V	228	26.9	15.6

## 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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	103.0 PK			1.35 H	329	66.8	36.2
2	*5320.00	91.6 AV			1.35 H	329	55.4	36.2
3	5350.00	54.2 PK	74.0	-19.8	1.35 H	329	52.2	2.0
4	5350.00	41.1 AV	54.0	-12.9	1.35 H	329	39.1	2.0
5	10640.00	56.4 PK	74.0	-17.6	2.29 H	312	40.6	15.8
6	10640.00	43.0 AV	54.0	-11.0	2.29 H	312	27.2	15.8

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	*5320.00	100.9 PK			3.55 V	296	64.7	36.2
2	*5320.00	89.5 AV			3.55 V	296	53.3	36.2
3	5350.00	53.2 PK	74.0	-20.8	3.55 V	296	51.2	2.0
4	5350.00	40.4 AV	54.0	-13.6	3.55 V	296	38.4	2.0
5	10640.00	55.5 PK	74.0	-18.5	1.57 V	217	39.7	15.8
6	10640.00	42.5 AV	54.0	-11.5	1.57 V	217	26.7	15.8

Remarks:

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

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	54.2 PK	74.0	-19.8	1.26 H	331	51.5	2.7
2	5460.00	41.4 AV	54.0	-12.6	1.26 H	331	38.7	2.7
3	#5470.00	56.5 PK	68.2	-11.7	1.26 H	331	53.8	2.7
4	*5500.00	103.9 PK			1.26 H	331	66.9	37.0
5	*5500.00	92.5 AV			1.26 H	331	55.5	37.0
6	11000.00	57.6 PK	74.0	-16.4	2.25 H	303	40.7	16.9
7	11000.00	44.2 AV	54.0	-9.8	2.25 H	303	27.3	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	5460.00	53.0 PK	74.0	-21.0	3.56 V	301	50.3	2.7
2	5460.00	40.5 AV	54.0	-13.5	3.56 V	301	37.8	2.7
3	#5470.00	54.3 PK	68.2	-13.9	3.56 V	301	51.6	2.7
4	*5500.00	101.8 PK			3.56 V	301	64.8	37.0
5	*5500.00	92.5 AV			3.56 V	301	55.5	37.0
6	11000.00	57.0 PK	74.0	-17.0	1.48 V	217	40.1	16.9
7	11000.00	43.5 AV	54.0	-10.5	1.48 V	217	26.6	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	*5580.00	104.3 PK			1.31 H	324	67.4	36.9
2	*5580.00	92.7 AV			1.31 H	324	55.8	36.9
3	11160.00	56.3 PK	74.0	-17.7	2.09 H	312	40.6	15.7
4	11160.00	42.7 AV	54.0	-11.3	2.09 H	312	27.0	15.7
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	*5580.00	102.2 PK			3.62 V	316	65.3	36.9
2	*5580.00	90.6 AV			3.62 V	316	53.7	36.9
3	11160.00	55.9 PK	74.0	-18.1	1.47 V	216	40.2	15.7
4	11160.00	42.2 AV	54.0	-11.8	1.47 V	216	26.5	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	106.1 PK			1.36 H	321	68.9	37.2
2	*5700.00	94.5 AV			1.36 H	321	57.3	37.2
3	#5725.00	62.0 PK	68.2	-6.2	1.36 H	321	59.1	2.9
4	11400.00	56.6 PK	74.0	-17.4	2.13 H	302	40.7	15.9
5	11400.00	43.1 AV	54.0	-10.9	2.13 H	302	27.2	15.9

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	*5700.00	104.1 PK			3.55 V	291	66.9	37.2
2	*5700.00	92.6 AV			3.55 V	291	55.4	37.2
3	#5725.00	59.2 PK	68.2	-9.0	3.55 V	291	56.3	2.9
4	11400.00	55.9 PK	74.0	-18.1	1.64 V	237	40.0	15.9
5	11400.00	42.5 AV	54.0	-11.5	1.64 V	237	26.6	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	#5470.00	53.6 PK	68.2	-14.6	1.31 H	321	50.9	2.7
2	*5720.00	105.8 PK			1.31 H	321	68.6	37.2
3	*5720.00	94.2 AV			1.31 H	321	57.0	37.2
4	#5850.00	54.6 PK	68.2	-13.6	1.31 H	321	51.3	3.3
5	11440.00	56.1 PK	74.0	-17.9	2.05 H	316	40.5	15.6
6	11440.00	42.6 AV	54.0	-11.4	2.05 H	316	27.0	15.6

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	#5470.00	53.0 PK	68.2	-15.2	3.55 V	307	50.3	2.7
2	*5720.00	103.8 PK			3.55 V	307	66.6	37.2
3	*5720.00	92.3 AV			3.55 V	307	55.1	37.2
4	#5850.00	53.9 PK	68.2	-14.3	3.55 V	307	50.6	3.3
5	11440.00	55.7 PK	74.0	-18.3	1.66 V	219	40.1	15.6
6	11440.00	42.1 AV	54.0	-11.9	1.66 V	219	26.5	15.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	#5645.60	54.1 PK	68.2	-14.1	1.48 H	321	51.4	2.7
2	*5745.00	105.6 PK			1.48 H	321	68.3	37.3
3	*5745.00	94.1 AV			1.48 H	321	56.8	37.3
4	#5963.20	54.2 PK	68.2	-14.0	1.48 H	321	50.9	3.3
5	11490.00	56.2 PK	74.0	-17.8	2.28 H	312	40.7	15.5
6	11490.00	42.7 AV	54.0	-11.3	2.28 H	312	27.2	15.5

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	#5620.80	54.8 PK	68.2	-13.4	3.48 V	303	52.2	2.6
2	*5745.00	103.6 PK			3.48 V	303	66.3	37.3
3	*5745.00	92.1 AV			3.48 V	303	54.8	37.3
4	#5955.20	55.5 PK	68.2	-12.7	3.48 V	303	52.2	3.3
5	11490.00	55.3 PK	74.0	-18.7	1.69 V	217	39.8	15.5
6	11490.00	41.8 AV	54.0	-12.2	1.69 V	217	26.3	15.5

Remarks:

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

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	#5641.60	55.1 PK	68.2	-13.1	1.31 H	319	52.4	2.7
2	*5785.00	105.7 PK			1.31 H	319	68.2	37.5
3	*5785.00	94.0 AV			1.31 H	319	56.5	37.5
4	#5972.80	55.3 PK	68.2	-12.9	1.31 H	319	52.1	3.2
5	11570.00	56.1 PK	74.0	-17.9	2.09 H	323	40.9	15.2
6	11570.00	42.7 AV	54.0	-11.3	2.09 H	323	27.5	15.2

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	#5643.20	54.5 PK	68.2	-13.7	3.46 V	295	51.8	2.7
2	*5785.00	103.6 PK			3.46 V	295	66.1	37.5
3	*5785.00	91.9 AV			3.46 V	295	54.4	37.5
4	#5944.00	55.2 PK	68.2	-13.0	3.46 V	295	51.9	3.3
5	11570.00	55.5 PK	74.0	-18.5	1.44 V	236	40.3	15.2
6	11570.00	42.1 AV	54.0	-11.9	1.44 V	236	26.9	15.2

Remarks:

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

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	#5645.60	54.1 PK	68.2	-14.1	1.37 H	318	51.4	2.7
2	*5825.00	105.2 PK			1.37 H	318	67.8	37.4
3	*5825.00	93.5 AV			1.37 H	318	56.1	37.4
4	#5958.40	55.4 PK	68.2	-12.8	1.37 H	318	52.1	3.3
5	11650.00	55.8 PK	74.0	-18.2	2.09 H	311	40.6	15.2
6	11650.00	42.3 AV	54.0	-11.7	2.09 H	311	27.1	15.2
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	#5644.80	54.4 PK	68.2	-13.8	3.66 V	296	51.7	2.7
2	*5825.00	103.3 PK			3.66 V	296	65.9	37.4
3	*5825.00	91.6 AV			3.66 V	296	54.2	37.4
4	#5965.60	55.0 PK	68.2	-13.2	3.66 V	296	51.8	3.2
5	11650.00	54.9 PK	74.0	-19.1	1.54 V	223	39.7	15.2
6	11650.00	41.7 AV	54.0	-12.3	1.54 V	223	26.5	15.2

Remarks:

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

Below 1GHz Worst-Case Data:

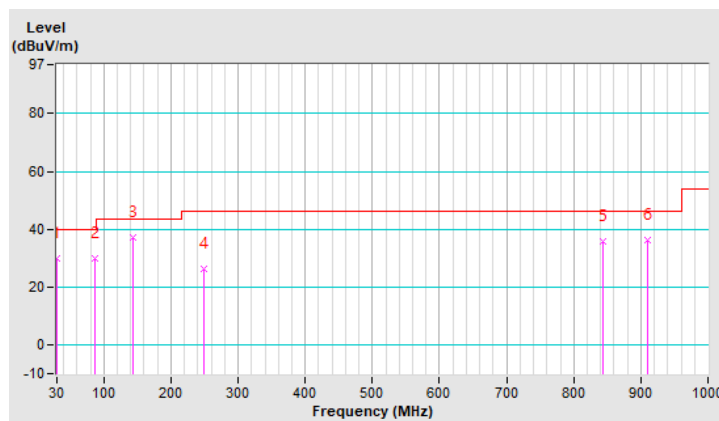
802.11n (HT20)

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	30.1 QP	40.0	-9.9	1.00 H	33	41.4	-11.3
2	87.23	29.7 QP	40.0	-10.3	1.50 H	227	44.6	-14.9
3	143.49	37.3 QP	43.5	-6.2	1.25 H	34	46.9	-9.6
4	248.25	26.3 QP	46.0	-19.7	1.25 H	154	36.3	-10.0
5	843.83	35.9 QP	46.0	-10.1	1.00 H	18	33.8	2.1
6	909.79	36.1 QP	46.0	-9.9	1.50 H	303	32.3	3.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

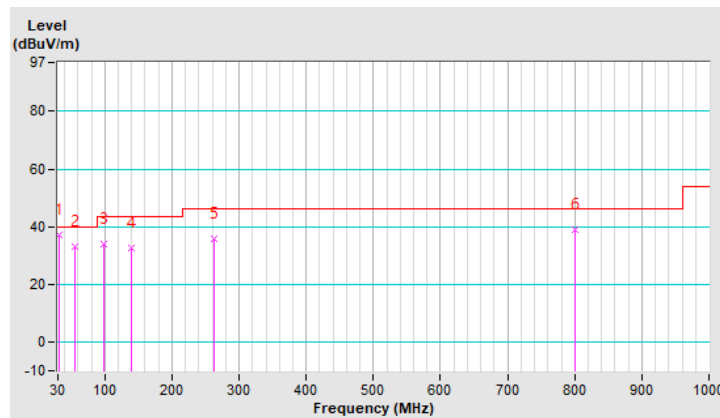


CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.94	37.0 QP	40.0	-3.0	1.25 V	185	48.4	-11.4
2	56.19	33.1 QP	40.0	-6.9	1.00 V	26	43.0	-9.9
3	97.90	33.8 QP	43.5	-9.7	1.50 V	161	48.0	-14.2
4	138.64	32.7 QP	43.5	-10.8	1.25 V	188	42.6	-9.9
5	262.80	35.7 QP	46.0	-10.3	1.00 V	179	45.1	-9.4
6	800.18	39.1 QP	46.0	-6.9	1.25 V	249	37.6	1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.





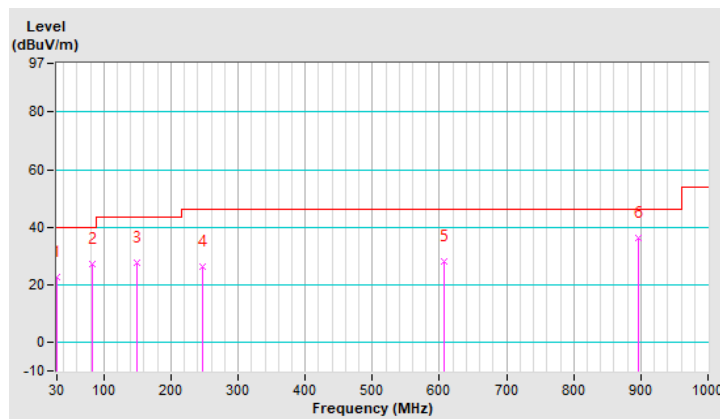
## 802.11n (HT20)

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	22.5 QP	40.0	-17.5	1.00 H	119	33.8	-11.3
2	82.38	27.1 QP	40.0	-12.9	1.25 H	6	41.4	-14.3
3	149.31	27.8 QP	43.5	-15.7	1.50 H	119	37.0	-9.2
4	246.31	26.2 QP	46.0	-19.8	1.25 H	128	36.3	-10.1
5	607.15	27.9 QP	46.0	-18.1	1.00 H	253	29.6	-1.7
6	896.21	36.2 QP	46.0	-9.8	1.00 H	213	33.1	3.1

## Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

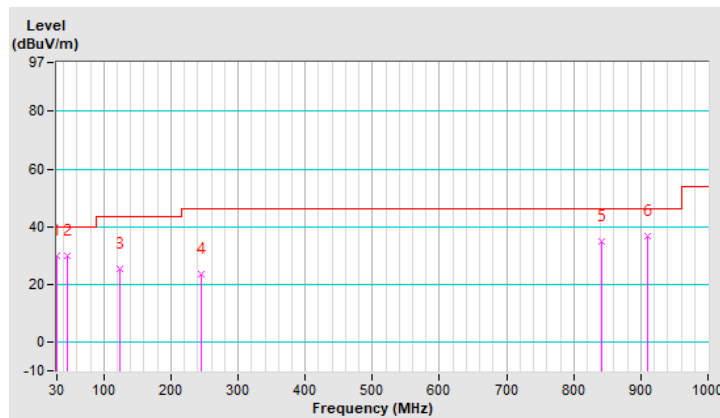


CHANNEL	TX Channel 48	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	29.9 QP	40.0	-10.1	1.50 V	178	41.2	-11.3
2	45.52	30.1 QP	40.0	-9.9	1.00 V	169	40.0	-9.9
3	124.09	25.3 QP	43.5	-18.2	1.25 V	141	36.5	-11.2
4	244.37	23.5 QP	46.0	-22.5	1.25 V	35	33.7	-10.2
5	840.92	35.0 QP	46.0	-11.0	1.00 V	65	32.9	2.1
6	909.79	36.7 QP	46.0	-9.3	1.00 V	20	32.9	3.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

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

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

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

### 4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 11, 2019	Dec. 10, 2020
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 20, 2020	Feb. 19, 2021
LISN 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.

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

#### 4.2.3 Test Procedures

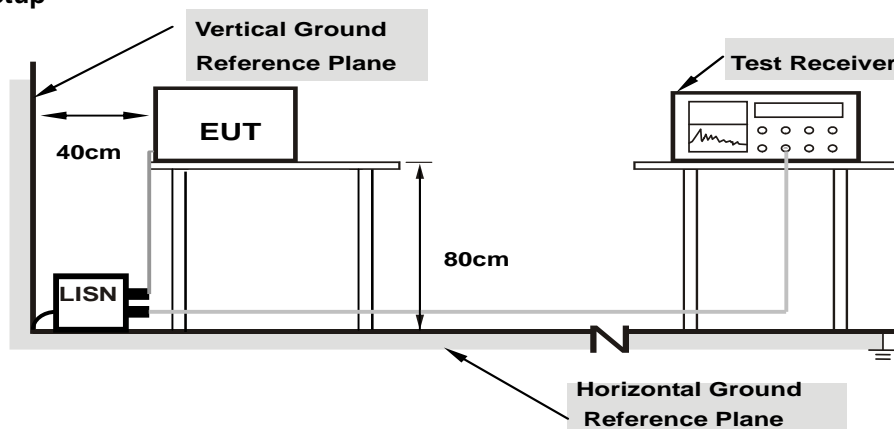
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

#### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

#### 4.2.7 Test Results

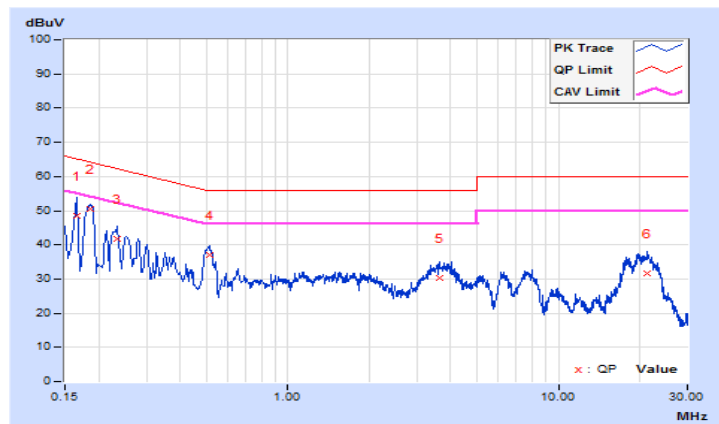
Worst-Case Data: 802.11n (HT20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Channel	TX Channel 140		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16600	9.63	38.86	21.32	48.49	30.95	65.16	55.16	-16.67	-24.21
2	0.18600	9.62	41.02	28.14	50.64	37.76	64.21	54.21	-13.57	-16.45
3	0.23400	9.63	31.97	20.42	41.60	30.05	62.31	52.31	-20.71	-22.26
4	0.51400	9.66	27.39	21.22	37.05	30.88	56.00	46.00	-18.95	-15.12
5	3.64600	9.78	20.64	15.38	30.42	25.16	56.00	46.00	-25.58	-20.84
6	21.35000	9.91	21.60	14.69	31.51	24.60	60.00	50.00	-28.49	-25.40

#### REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

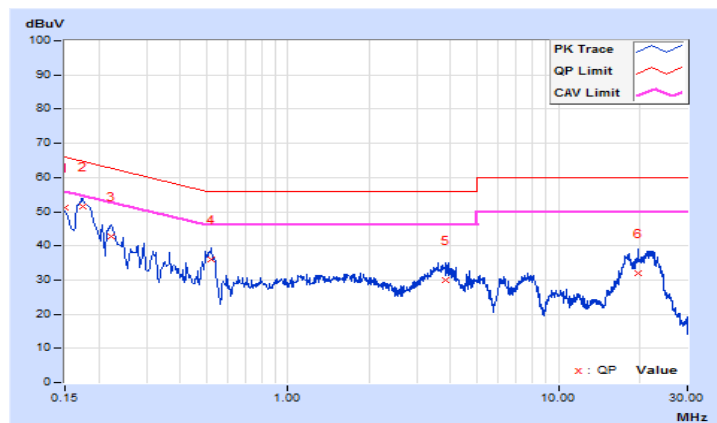


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Channel	TX Channel 140		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.66	41.37	22.19	51.03	31.85	66.00	56.00	-14.97	-24.15
<b>2</b>	<b>0.17384</b>	<b>9.65</b>	<b>41.81</b>	<b>27.25</b>	<b>51.46</b>	<b>36.90</b>	<b>64.77</b>	<b>54.77</b>	<b>-13.31</b>	<b>-17.87</b>
3	0.22152	9.64	33.04	21.08	42.68	30.72	62.76	52.76	-20.08	-22.04
4	0.52200	9.68	26.25	19.88	35.93	29.56	56.00	46.00	-20.07	-16.44
5	3.83400	9.82	20.17	14.80	29.99	24.62	56.00	46.00	-26.01	-21.38
6	19.70200	10.03	21.88	13.74	31.91	23.77	60.00	50.00	-28.09	-26.23

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



### 4.3 Transmit Power Measurement

#### 4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A		√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C		√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3		√	1 Watt (30 dBm)

\*B is the 26 dB emission bandwidth in megahertz

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

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

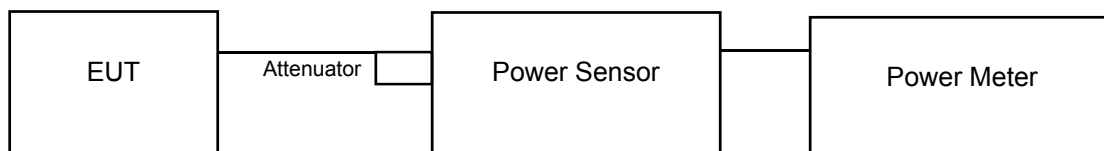
Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

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

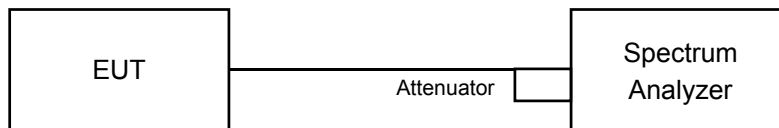
For power measurements on all other devices: Array Gain =  $10 \log(N_{ANT}/N_{SS})$  dB.

#### 4.3.2 Test Setup

For Power Output  
802.11a, 802.11n (HT20)



For Spectrum, 26dB and Occupied Bandwidth



### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.3.4 Test Procedure

#### For Average Power Measurement

#### For 802.11a, 802.11n (HT20)

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

#### For Spectrum test

Follow FCC KDB 789033 UNII test procedure:

#### Method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1MHz.
3. Set the VBW  $\geq 3 \times$  RBW.
4. Number of points in sweep  $\geq 2$  Span / RBW.
5. Sweep time = auto.
6. Set trigger to free run (duty cycle  $\geq 98$  percent)
7. Detector = RMS.
8. Trace average at least 100 traces in power averaging mode
9. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

#### For 26dB Bandwidth

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

#### For Occupied Bandwidth

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

### 4.3.5 Deviation from Test Standard

No deviation.

### 4.3.6 EUT Operating Conditions

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

### 4.3.7 Test Result

Power Output:

Mode A



## 802.11a

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	20.749	13.17	24.00	Pass
40	5200	<b>21.528</b>	13.33	24.00	Pass
48	5240	21.232	13.27	24.00	Pass
52	5260	20.989	13.22	23.95	Pass
60	5300	21.528	13.33	23.97	Pass
64	5320	<b>21.928</b>	13.41	23.97	Pass
100	5500	21.478	13.32	23.98	Pass
116	5580	21.677	13.36	24.00	Pass
140	5700	21.878	13.40	24.00	Pass
144	5720 For U-NII-2C	8.690	9.39	22.76	Pass
144	5720 For U-NII-3	1.374	1.38	30.00	Pass
149	5745	21.086	13.24	30.00	Pass
157	5785	<b>21.429</b>	13.31	30.00	Pass
165	5825	20.989	13.22	30.00	Pass

## Note:

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

1.  $11\text{dBm} + 10\log(19.73) = 23.95 < 24\text{dBm}$
2.  $11\text{dBm} + 10\log(19.85) = 23.97 < 24\text{dBm}$
3.  $11\text{dBm} + 10\log(19.85) = 23.97 < 24\text{dBm}$
4.  $11\text{dBm} + 10\log(19.90) = 23.98 < 24\text{dBm}$
5.  $11\text{dBm} + 10\log(20.09) = 24.02 > 24\text{dBm}$
6.  $11\text{dBm} + 10\log(20.02) = 24.01 > 24\text{dBm}$
7.  $11\text{dBm} + 10\log(5725.00 - 5709.98) = 22.76 < 24\text{dBm}$

## 802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	21.086	13.24	24.00	Pass
40	5200	20.989	13.22	24.00	Pass
48	5240	21.429	13.31	24.00	Pass
52	5260	20.606	13.14	24.00	Pass
60	5300	21.577	13.34	24.00	Pass
64	5320	21.038	13.23	23.96	Pass
100	5500	21.727	13.37	23.99	Pass
116	5580	22.029	13.43	23.98	Pass
140	5700	<b>22.080</b>	13.44	24.00	Pass
144	5720 For U-NII-2C	8.933	9.51	22.74	Pass
144	5720 For U-NII-3	1.406	1.48	30.00	Pass
149	5745	20.606	13.14	30.00	Pass
157	5785	20.654	13.15	30.00	Pass
165	5825	20.512	13.12	30.00	Pass

## Note:

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

- $11\text{dBm} + 10\log(19.99) = 24.00 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.97) = 24.00 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.81) = 23.96 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.92) = 23.99 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.89) = 23.98 < 24\text{dBm}$
- $11\text{dBm} + 10\log(20.07) = 24.02 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5710.05) = 22.74 < 24\text{dBm}$

## Mode B

## 802.11a

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	20.324	13.08	24.00	Pass
40	5200	20.417	13.10	24.00	Pass
48	5240	21.677	13.36	24.00	Pass
52	5260	20.277	13.07	24.00	Pass
60	5300	21.086	13.24	23.96	Pass
64	5320	<b>22.080</b>	13.44	23.97	Pass
100	5500	21.184	13.26	23.99	Pass
116	5580	21.528	13.33	23.97	Pass
140	5700	21.429	13.31	23.98	Pass
144	5720 For U-NII-2C	15.101	11.79	22.77	Pass
144	5720 For U-NII-3	2.317	3.65	30.00	Pass
149	5745	20.606	13.14	30.00	Pass
157	5785	21.727	13.37	30.00	Pass
165	5825	21.928	13.41	30.00	Pass

## Note:

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

- $11\text{dBm} + 10\log(19.97) = 24.00 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.77) = 23.96 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.85) = 23.97 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.91) = 23.99 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.86) = 23.97 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.89) = 23.98 < 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5709.96) = 22.77 < 24\text{dBm}$

## 802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	20.559	13.13	24.00	Pass
40	5200	20.464	13.11	24.00	Pass
48	5240	<b>21.827</b>	13.39	24.00	Pass
52	5260	20.230	13.06	23.96	Pass
60	5300	21.878	13.40	24.00	Pass
64	5320	21.777	13.38	24.00	Pass
100	5500	21.627	13.35	23.98	Pass
116	5580	<b>21.979</b>	13.42	24.00	Pass
140	5700	21.627	13.35	24.00	Pass
144	5720 For U-NII-2C	16.788	12.25	22.79	Pass
144	5720 For U-NII-3	2.535	4.04	30.00	Pass
149	5745	<b>22.131</b>	13.45	30.00	Pass
157	5785	20.749	13.17	30.00	Pass
165	5825	20.797	13.18	30.00	Pass

## Note:

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

- $11\text{dBm} + 10\log(19.77) = 23.96 < 24\text{dBm}$
- $11\text{dBm} + 10\log(20.03) = 24.01 > 24\text{dBm}$
- $11\text{dBm} + 10\log(19.99) = 24.00 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.87) = 23.98 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.97) = 24.00 < 24\text{dBm}$
- $11\text{dBm} + 10\log(20.05) = 24.02 > 24\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5709.88) = 22.79 < 24\text{dBm}$

26dB Bandwidth:

Mode A

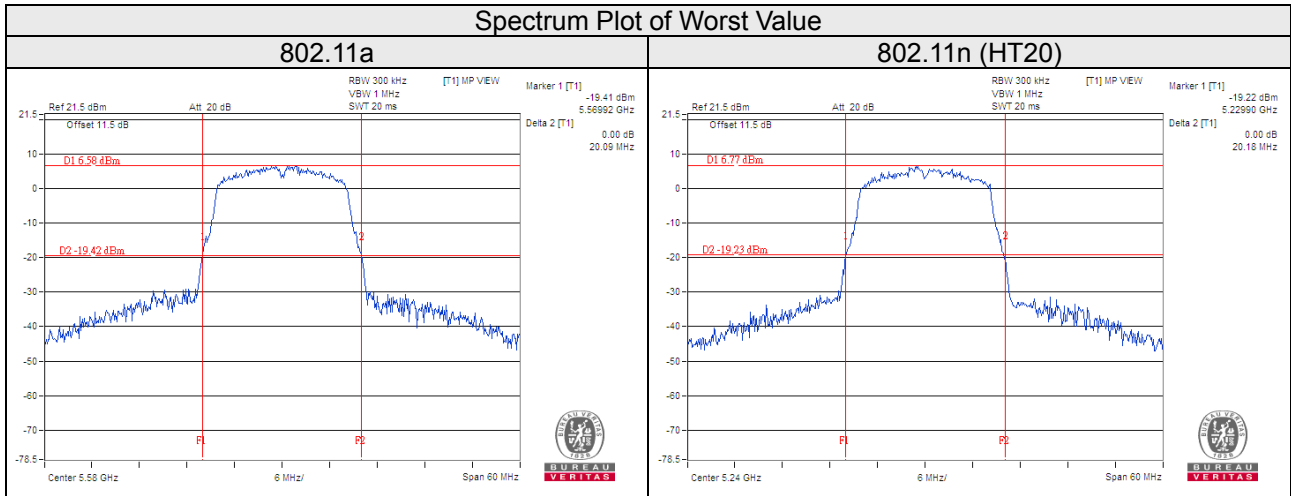
802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	19.91
40	5200	19.70
48	5240	19.81
52	5260	19.73
60	5300	19.85
64	5320	19.85
100	5500	19.90
116	5580	20.09
140	5700	20.02
144	5720 For U-NII-2C	15.02

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	19.91
40	5200	19.86
48	5240	20.18
52	5260	19.99
60	5300	19.97
64	5320	19.81
100	5500	19.92
116	5580	19.89
140	5700	20.07
144	5720 For U-NII-2C	14.95

### Spectrum Plot of Worst Value



Mode B

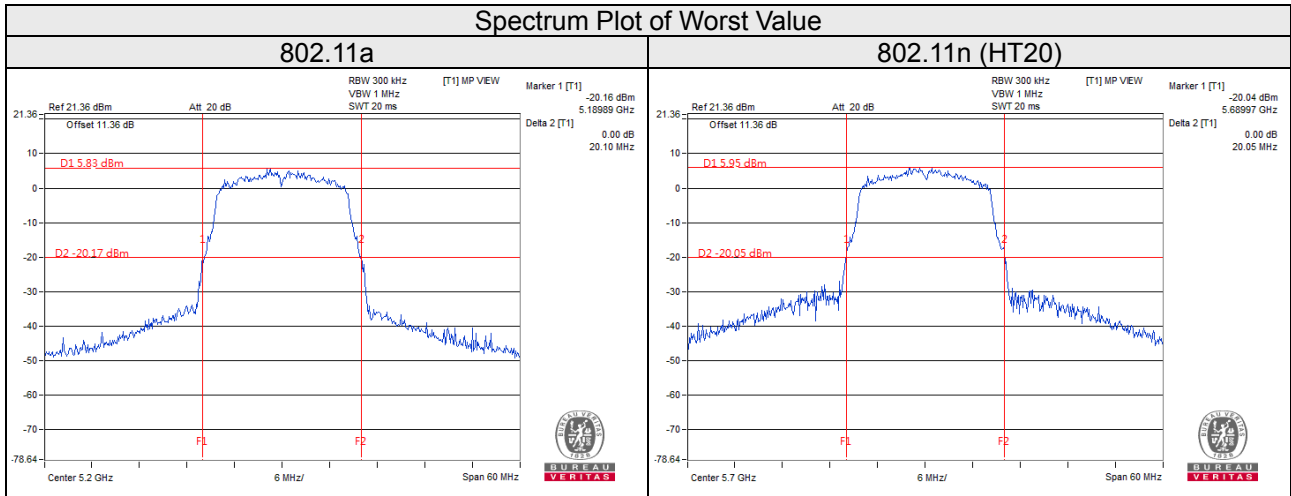
802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	19.83
40	5200	20.10
48	5240	19.65
52	5260	19.97
60	5300	19.77
64	5320	19.85
100	5500	19.91
116	5580	19.86
140	5700	19.89
144	5720 For U-NII-2C	15.04

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	19.97
40	5200	19.63
48	5240	19.90
52	5260	19.77
60	5300	20.03
64	5320	19.99
100	5500	19.87
116	5580	19.97
140	5700	20.05
144	5720 For U-NII-2C	15.12

### Spectrum Plot of Worst Value





EUT Maximum Conducted Power

Mode A

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	21.928	13.41
5470~5725	21.878	13.40

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	21.577	13.34
5470~5725	22.080	13.44

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

Mode B

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	22.080	13.44
5470~5725	21.528	13.33

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

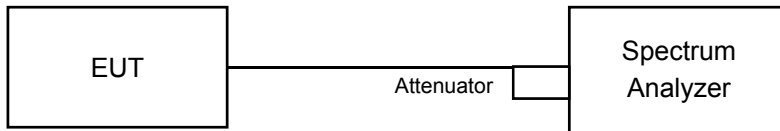
802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	21.878	13.40
5470~5725	21.979	13.42

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

## 4.4 Occupied Bandwidth Measurement

### 4.4.1 Test Setup



### 4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

#### 4.4.4 Test Result

Mode A

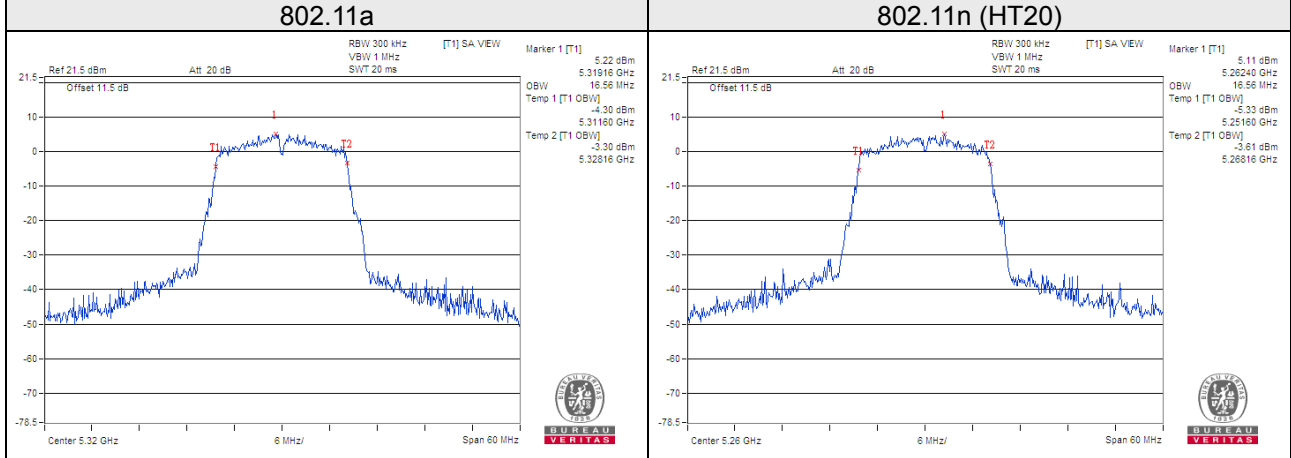
802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.44
40	5200	16.44
48	5240	16.44
52	5260	16.44
60	5300	16.44
64	5320	16.56
100	5500	16.44
116	5580	16.44
140	5700	16.44
144	5720 For U-NII-2C	13.28
144	5720 For U-NII-3	3.16
149	5745	16.32
157	5785	16.44
165	5825	16.44

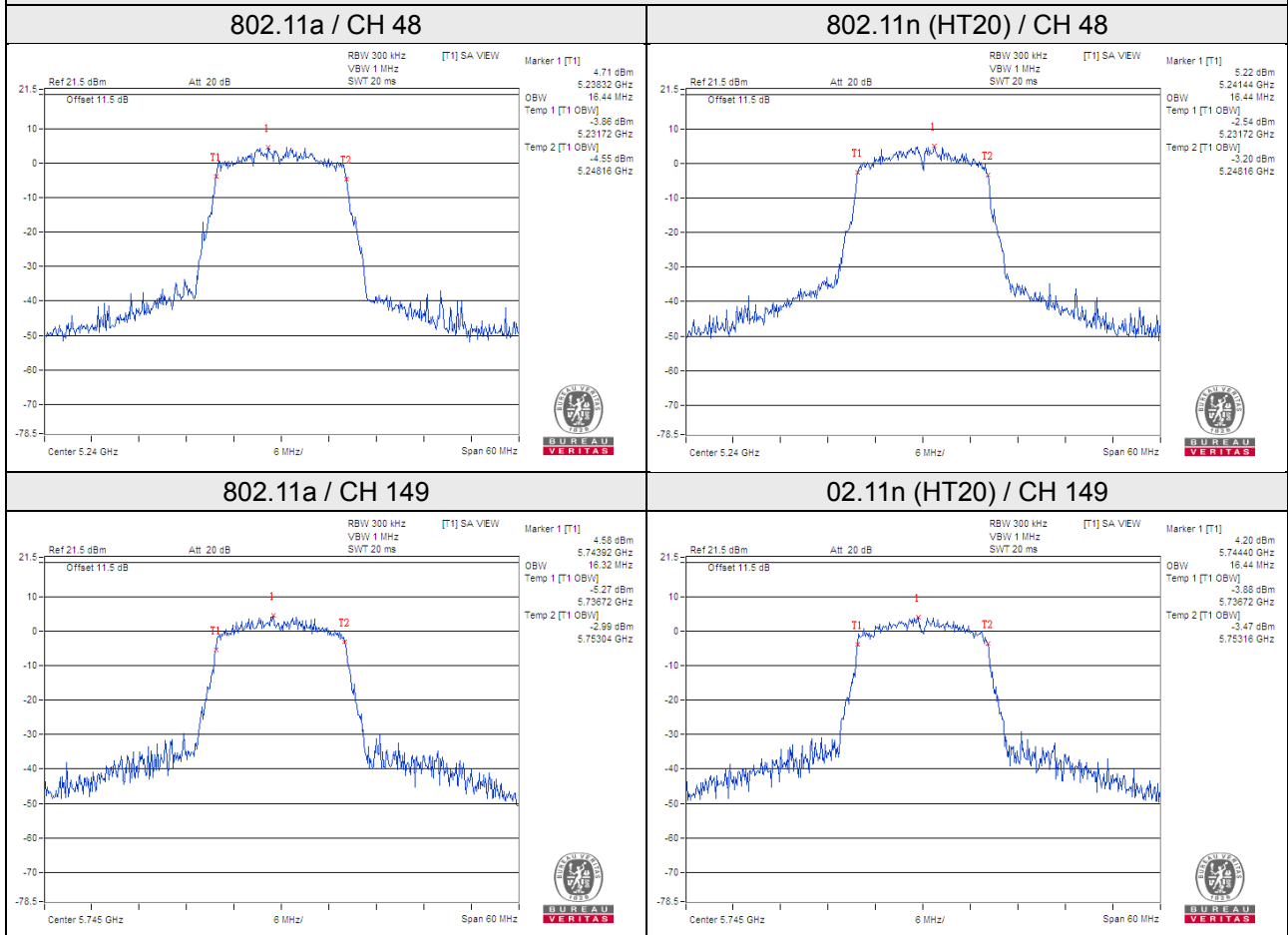
802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.44
40	5200	16.44
48	5240	16.44
52	5260	16.56
60	5300	16.56
64	5320	16.44
100	5500	16.56
116	5580	16.56
140	5700	16.44
144	5720 For U-NII-2C	13.28
144	5720 For U-NII-3	3.16
149	5745	16.44
157	5785	16.56
165	5825	16.56

### Spectrum Plot of Worst Value



### Spectrum Plot for near By DFS Band



## Mode B

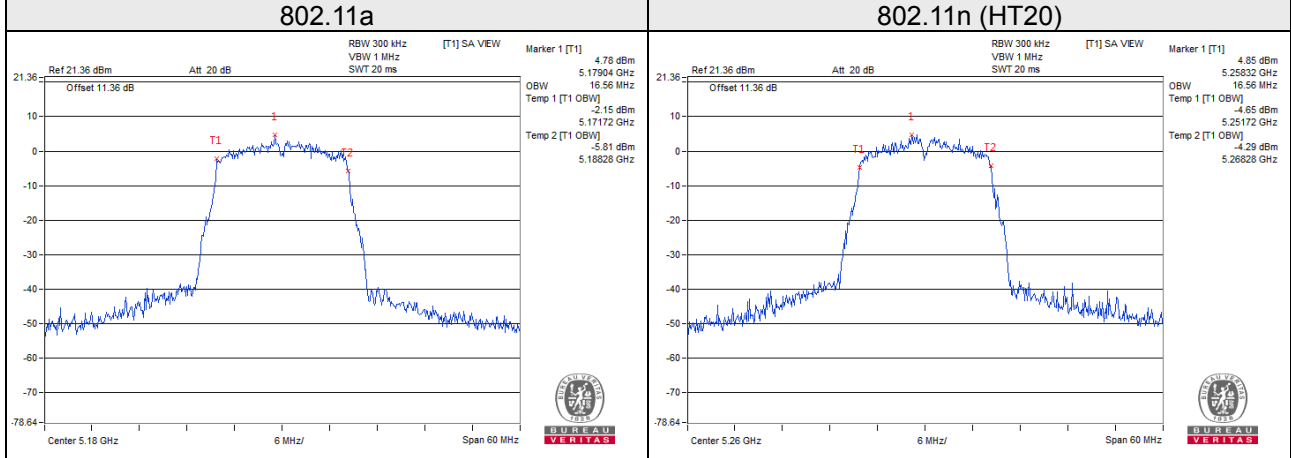
## 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.56
40	5200	16.44
48	5240	16.44
52	5260	16.56
60	5300	16.44
64	5320	16.44
100	5500	16.44
116	5580	16.44
140	5700	16.44
144	5720 For U-NII-2C	13.40
144	5720 For U-NII-3	3.16
149	5745	16.44
157	5785	16.54
165	5825	16.44

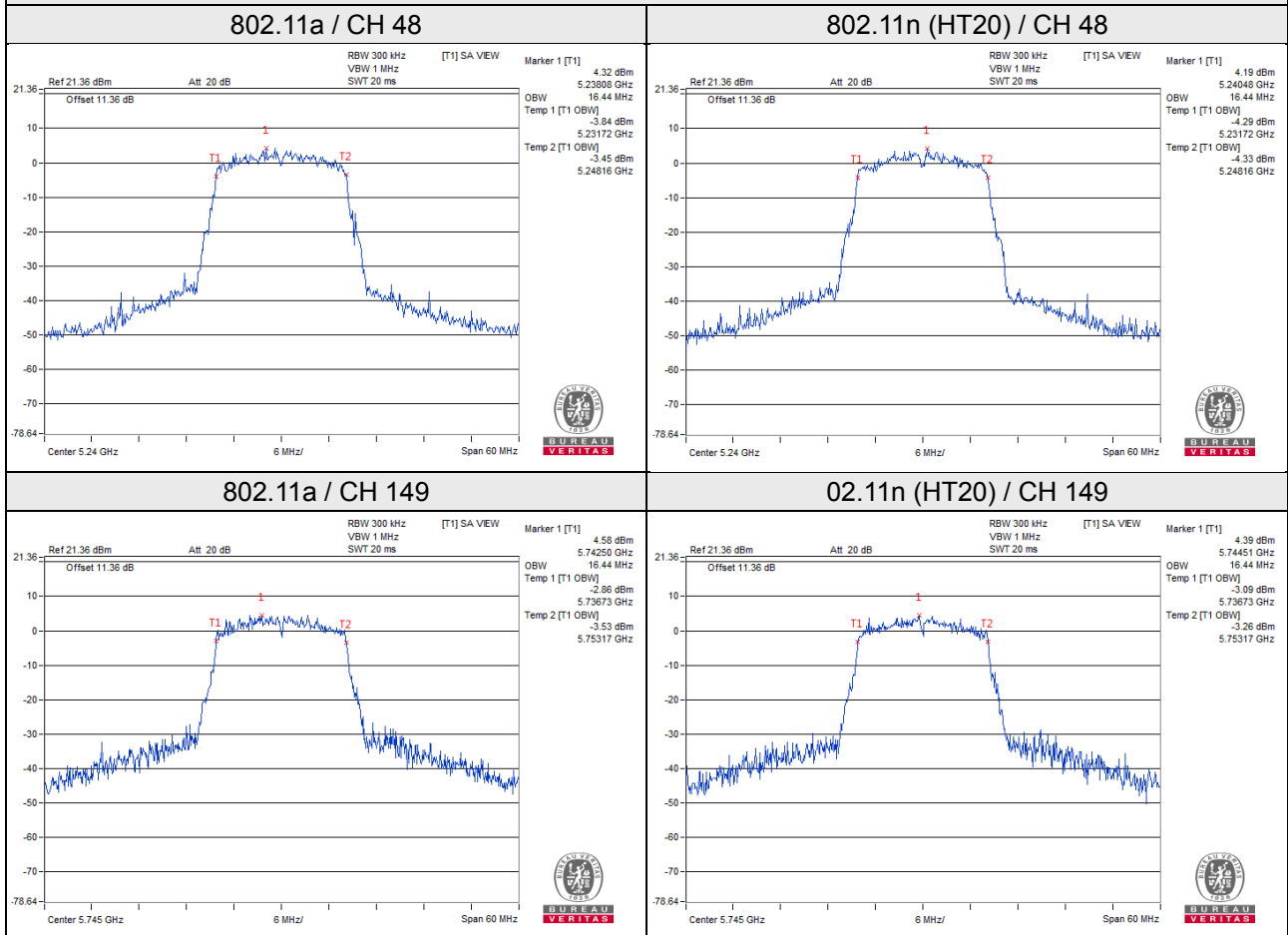
## 802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.44
40	5200	16.44
48	5240	16.44
52	5260	16.56
60	5300	16.44
64	5320	16.44
100	5500	16.44
116	5580	16.44
140	5700	16.56
144	5720 For U-NII-2C	13.40
144	5720 For U-NII-3	3.16
149	5745	16.44
157	5785	16.54
165	5825	16.44

### Spectrum Plot of Worst Value



### Spectrum Plot for near By DFS Band

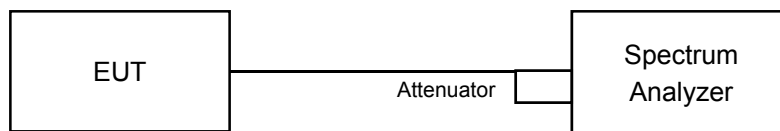


## 4.5 Peak Power Spectral Density Measurement

### 4.5.1 Limits of Peak Power Spectral Density Measurement

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

### 4.5.2 Test Setup



### 4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.5.4 Test Procedures

##### For U-NII-1, U-NII-2A, U-NII-2C band:

Duty cycle of test signal is  $\geq 98\%$

Using method SA-1

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

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

Duty cycle  $\geq 98\%$

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

#### 4.5.5 Deviation from Test Standard

No deviation.

#### 4.5.6 EUT Operating Conditions

Same as 4.3.6.



#### 4.5.7 Test Results

Mode A

For U-NII-1, U-NII-2A, U-NII-2C band

802.11a

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	0.18	11.00	Pass
40	5200	0.19	11.00	Pass
48	5240	0.42	11.00	Pass
52	5260	0.81	11.00	Pass
60	5300	0.92	11.00	Pass
64	5320	0.83	11.00	Pass
100	5500	1.25	11.00	Pass
116	5580	1.19	11.00	Pass
140	5700	0.09	11.00	Pass
144	5720 For U-NII-2C	0.31	11.00	Pass

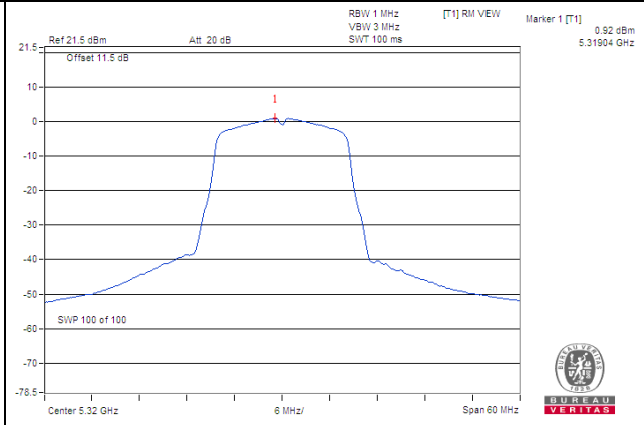
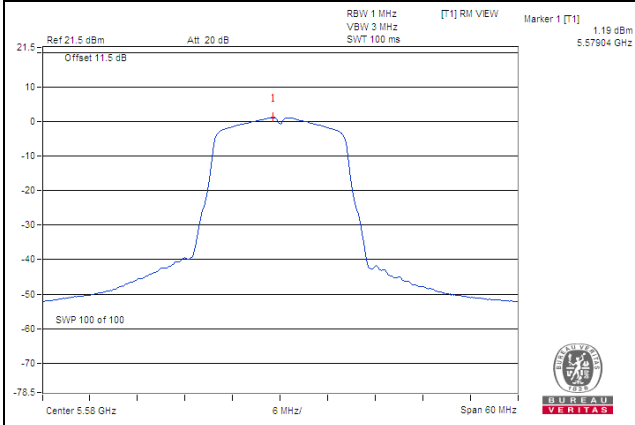
802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	0.36	11.00	Pass
40	5200	0.19	11.00	Pass
48	5240	0.44	11.00	Pass
52	5260	0.81	11.00	Pass
60	5300	0.75	11.00	Pass
64	5320	0.92	11.00	Pass
100	5500	0.83	11.00	Pass
116	5580	0.69	11.00	Pass
140	5700	0.20	11.00	Pass
144	5720 For U-NII-2C	0.40	11.00	Pass

### Spectrum Plot of Worst Value

802.11a / CH 100

802.11n (HT20) / CH 64

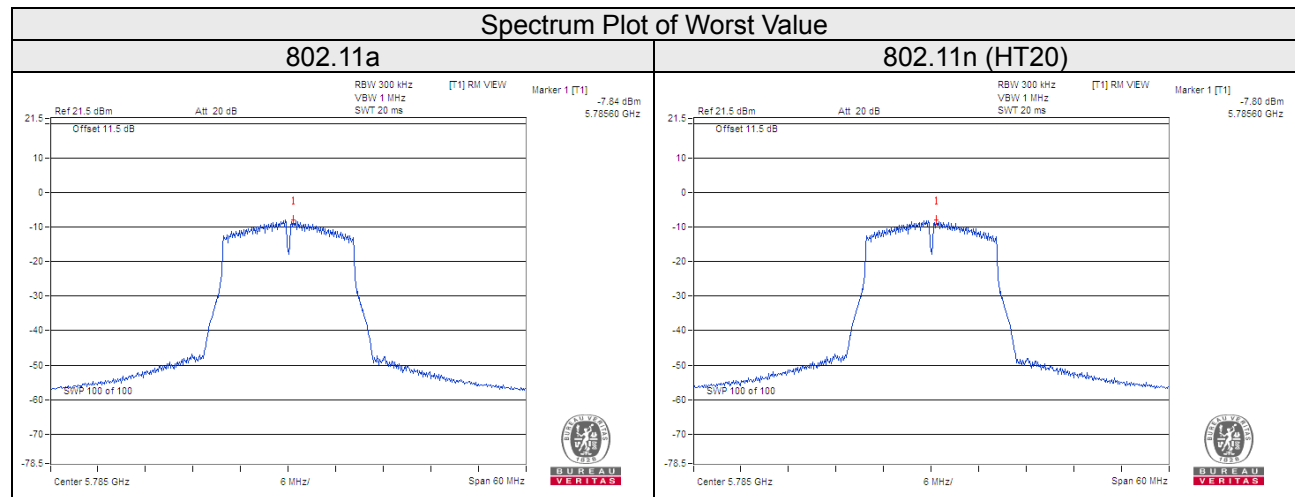


For U-NII-3 band:  
802.11a

Chan.	Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)		
144	5720 For 5745~5825MHz	-10.39	-8.17	30	Pass
149	5745	-8.19	-5.97	30	Pass
157	5785	-7.84	-5.62	30	Pass
165	5825	-8.05	-5.83	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)		
144	5720 For 5745~5825MHz	-10.1	-7.88	30	Pass
149	5745	-8.01	-5.79	30	Pass
157	5785	-7.80	-5.58	30	Pass
165	5825	-7.98	-5.76	30	Pass



Mode B

For U-NII-1, U-NII-2A, U-NII-2C band

802.11a

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	-0.09	11.00	Pass
40	5200	-0.14	11.00	Pass
48	5240	-0.04	11.00	Pass
52	5260	0.23	11.00	Pass
60	5300	0.46	11.00	Pass
64	5320	0.31	11.00	Pass
100	5500	0.04	11.00	Pass
116	5580	0.46	11.00	Pass
140	5700	0.31	11.00	Pass
144	5720 For U-NII-2C	2.58	11.00	Pass

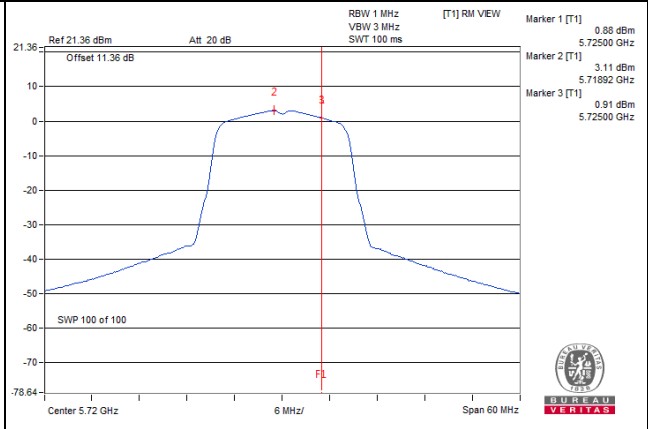
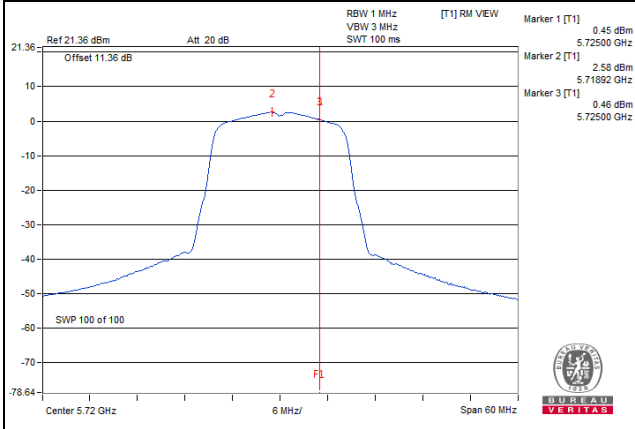
802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	0.17	11.00	Pass
40	5200	0.25	11.00	Pass
48	5240	-0.20	11.00	Pass
52	5260	0.08	11.00	Pass
60	5300	0.36	11.00	Pass
64	5320	0.34	11.00	Pass
100	5500	0.38	11.00	Pass
116	5580	0.32	11.00	Pass
140	5700	0.40	11.00	Pass
144	5720 For U-NII-2C	3.11	11.00	Pass

### Spectrum Plot of Worst Value

802.11a / CH 144

802.11n (HT20) / CH 144

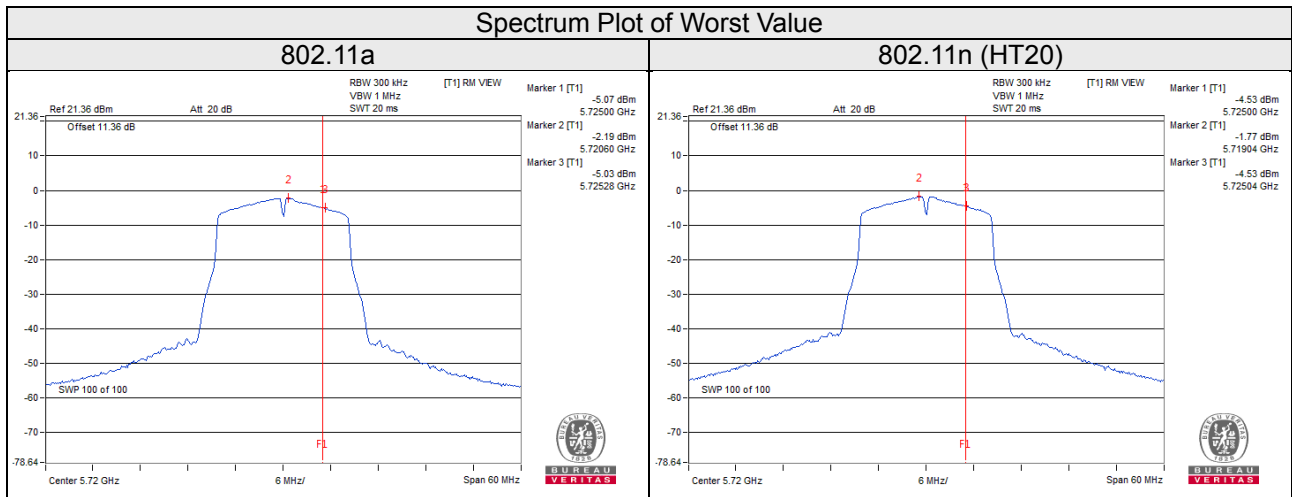


For U-NII-3 band:  
802.11a

Chan.	Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)		
144	5720 For 5745~5825MHz	-5.03	-2.81	30	Pass
149	5745	-7.25	-5.03	30	Pass
157	5785	-7.54	-5.32	30	Pass
165	5825	-7.75	-5.53	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)		
144	5720 For 5745~5825MHz	-4.53	-2.31	30	Pass
149	5745	-7.69	-5.47	30	Pass
157	5785	-7.69	-5.47	30	Pass
165	5825	-7.91	-5.69	30	Pass

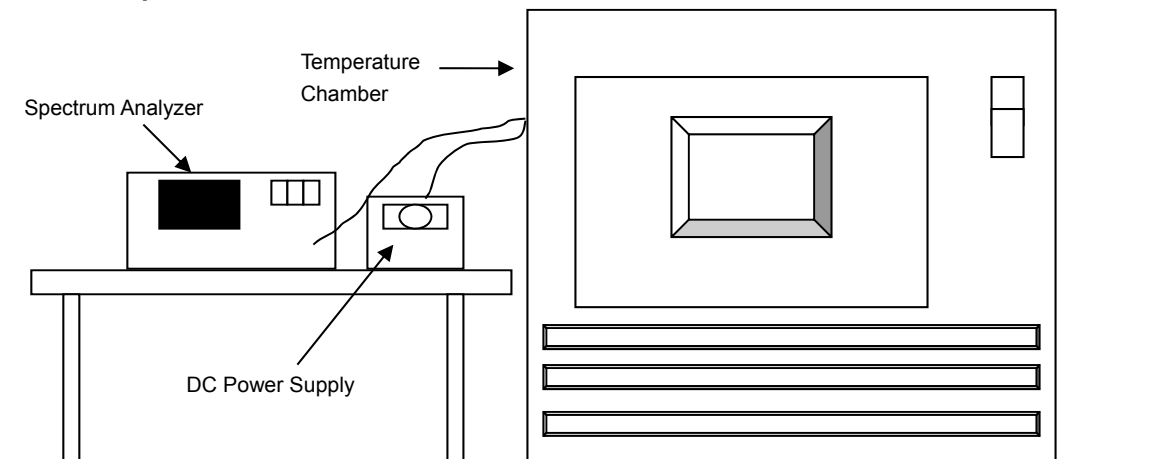


## 4.6 Frequency Stability

### 4.6.1 Limits of Frequency Stability Measurement

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

### 4.6.2 Test Setup



### 4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2019	Jun. 11, 2020
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 03, 2019	Jun. 02, 2020
Digital Multimeter Fluke	87-III	70360742	Jun. 27, 2019	Jun. 26, 2020
DC Power Supply Topward	6306A	727263	NA	NA

### 4.6.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 4.6.5 Deviation from Test Standard

No deviation.

#### 4.6.6 EUT Operating Condition

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

#### 4.6.7 Test Results

##### Mode A

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
85	3.3	5179.9928	PASS	5179.9941	PASS	5179.9927	PASS	5179.993	PASS
80	3.3	5179.9885	PASS	5179.9874	PASS	5179.9877	PASS	5179.9851	PASS
70	3.3	5180.0217	PASS	5180.0221	PASS	5180.0256	PASS	5180.0229	PASS
60	3.3	5180.0183	PASS	5180.0212	PASS	5180.0205	PASS	5180.0214	PASS
50	3.3	5180.0142	PASS	5180.0152	PASS	5180.0174	PASS	5180.0139	PASS
40	3.3	5179.9855	PASS	5179.9846	PASS	5179.9863	PASS	5179.9839	PASS
30	3.3	5180.0041	PASS	5180.0034	PASS	5180.0019	PASS	5180.0026	PASS
20	3.3	5180.0029	PASS	5180.0049	PASS	5180.0052	PASS	5180.0028	PASS
10	3.3	5179.9832	PASS	5179.9855	PASS	5179.9836	PASS	5179.9827	PASS

Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	3.8	5180.0026	PASS	5180.0057	PASS	5180.0058	PASS	5180.0019	PASS
	3.3	5180.0029	PASS	5180.0049	PASS	5180.0052	PASS	5180.0028	PASS
	2.8	5180.003	PASS	5180.0053	PASS	5180.0048	PASS	5180.0026	PASS



## Mode B

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
85	3.3	5179.9943	PASS	5179.9932	PASS	5179.9954	PASS	5179.9957	PASS
80	3.3	5179.987	PASS	5179.9888	PASS	5179.9861	PASS	5179.9864	PASS
70	3.3	5180.0094	PASS	5180.0119	PASS	5180.0081	PASS	5180.0095	PASS
60	3.3	5180.0205	PASS	5180.0191	PASS	5180.0189	PASS	5180.0197	PASS
50	3.3	5179.9936	PASS	5179.9953	PASS	5179.9971	PASS	5179.9953	PASS
40	3.3	5179.996	PASS	5180.0002	PASS	5179.9973	PASS	5179.9971	PASS
30	3.3	5180.0125	PASS	5180.0157	PASS	5180.0118	PASS	5180.0122	PASS
20	3.3	5180.0226	PASS	5180.0269	PASS	5180.0234	PASS	5180.0237	PASS
10	3.3	5180.0121	PASS	5180.0121	PASS	5180.0136	PASS	5180.0132	PASS

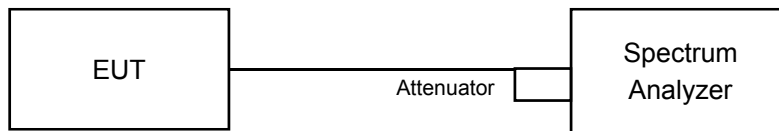
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	3.8	5180.0235	PASS	5180.0263	PASS	5180.0225	PASS	5180.023	PASS
	3.3	5180.0226	PASS	5180.0269	PASS	5180.0234	PASS	5180.0237	PASS
	2.8	5180.0225	PASS	5180.0277	PASS	5180.0241	PASS	5180.0227	PASS

## 4.7 6dB Bandwidth Measurement

### 4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

### 4.7.2 Test Setup



### 4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.7.4 Test Procedure

#### Measurement Procedure REF

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

### 4.7.5 Deviation from Test Standard

No deviation.

### 4.7.6 EUT Operating Condition

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

### 4.7.7 Test Results

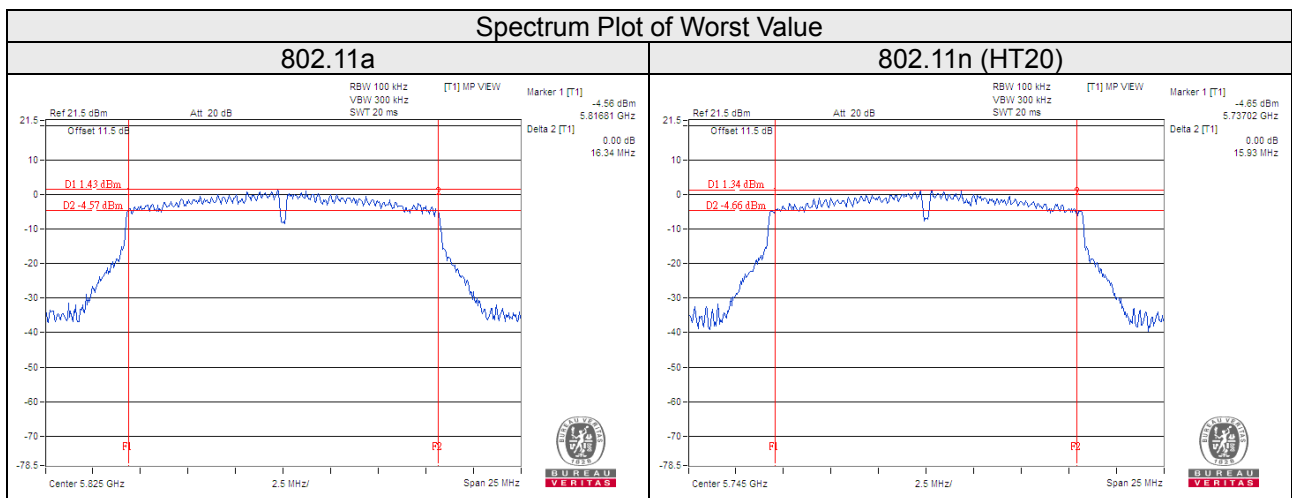
#### Mode A

#### 802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	3.17	0.5	Pass
149	5745	16.35	0.5	Pass
157	5785	16.40	0.5	Pass
165	5825	16.34	0.5	Pass

#### 802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	3.08	0.5	Pass
149	5745	15.93	0.5	Pass
157	5785	16.36	0.5	Pass
165	5825	16.37	0.5	Pass



\*802.11a: Ch 144 (5720MHz for U-NII-3): 16.40-(5725-5711.77) = 3.17

\*802.11n (HT20): Ch 144 (5720MHz for U-NII-3): 16.25-(5725-5711.18) = 3.08

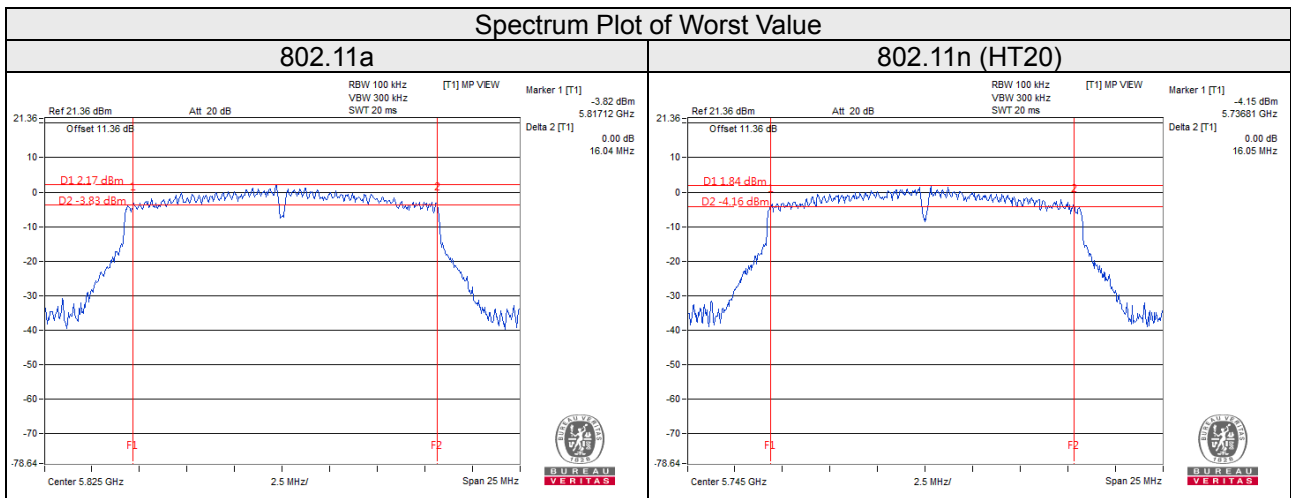
Mode B

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	2.86	0.5	Pass
149	5745	16.34	0.5	Pass
157	5785	16.11	0.5	Pass
165	5825	16.04	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	2.87	0.5	Pass
149	5745	16.05	0.5	Pass
157	5785	16.33	0.5	Pass
165	5825	16.36	0.5	Pass



\*802.11a: Ch 144 (5720MHz for U-NII-3): 16.03-(5725-5711.83) = 2.86

\*802.11n (HT20): Ch 144 (5720MHz for U-NII-3): 16.03-(5725-5711.84) = 2.87

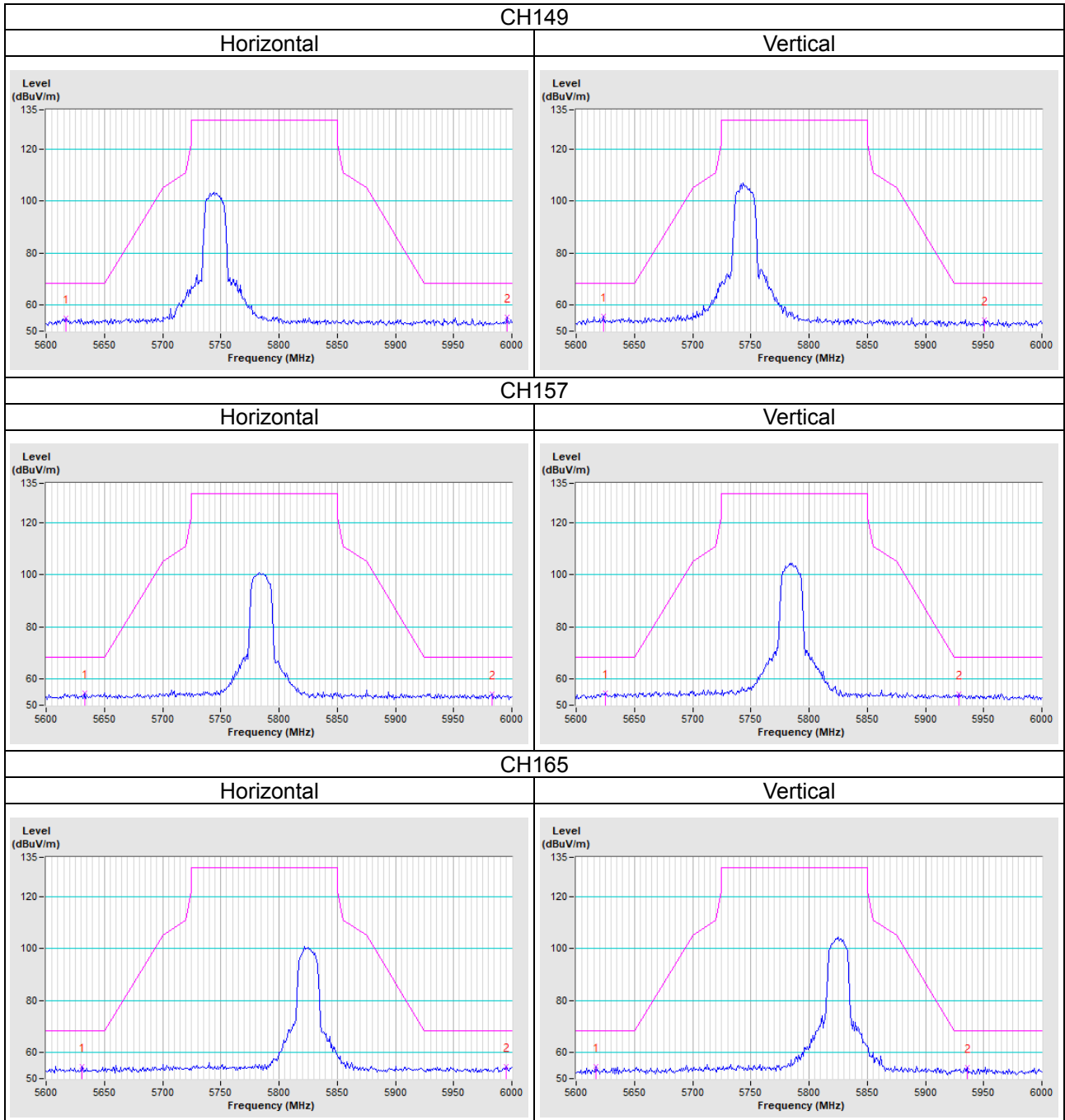
## 5 Pictures of Test Arrangements

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

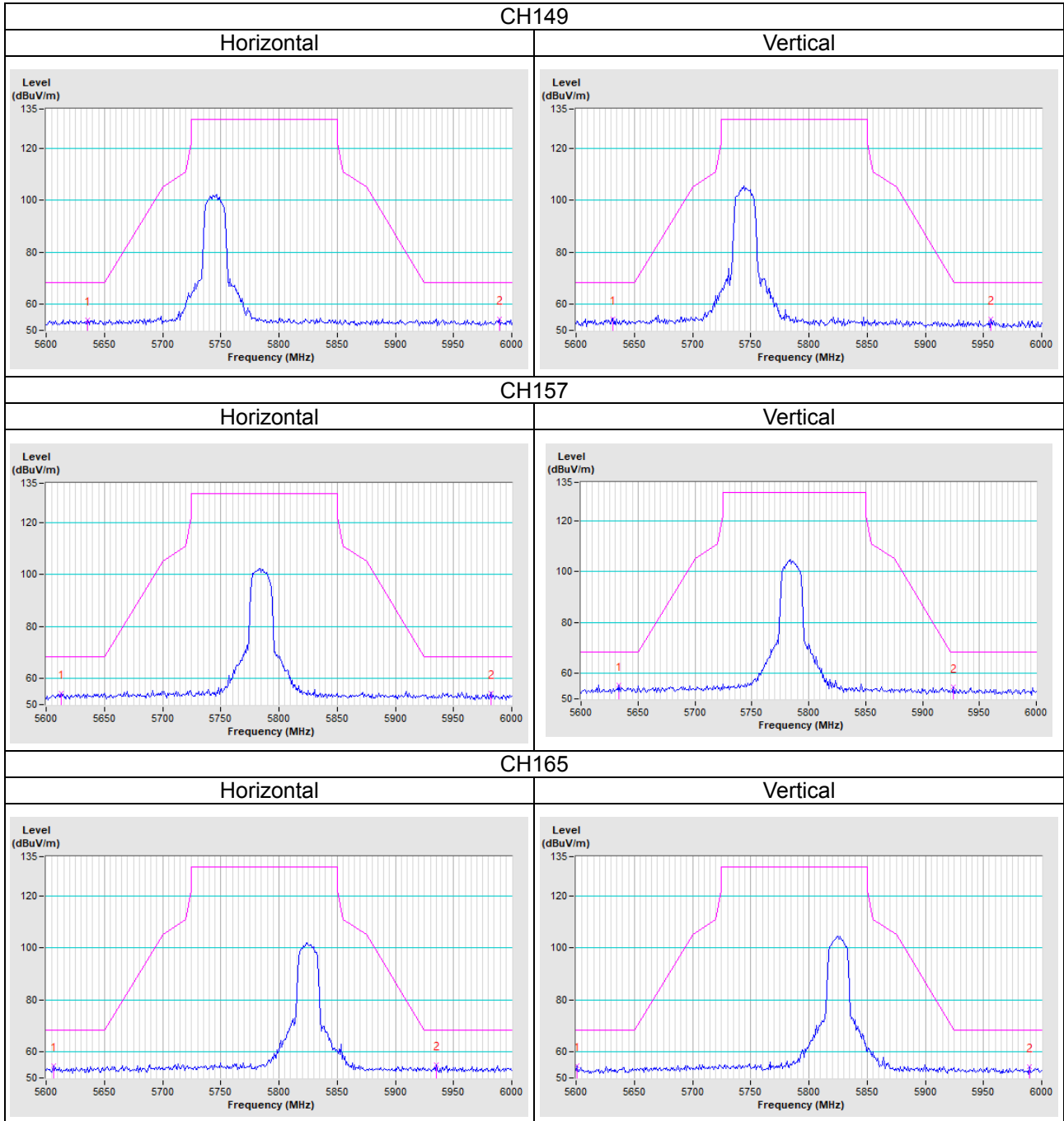
## Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

Mode A

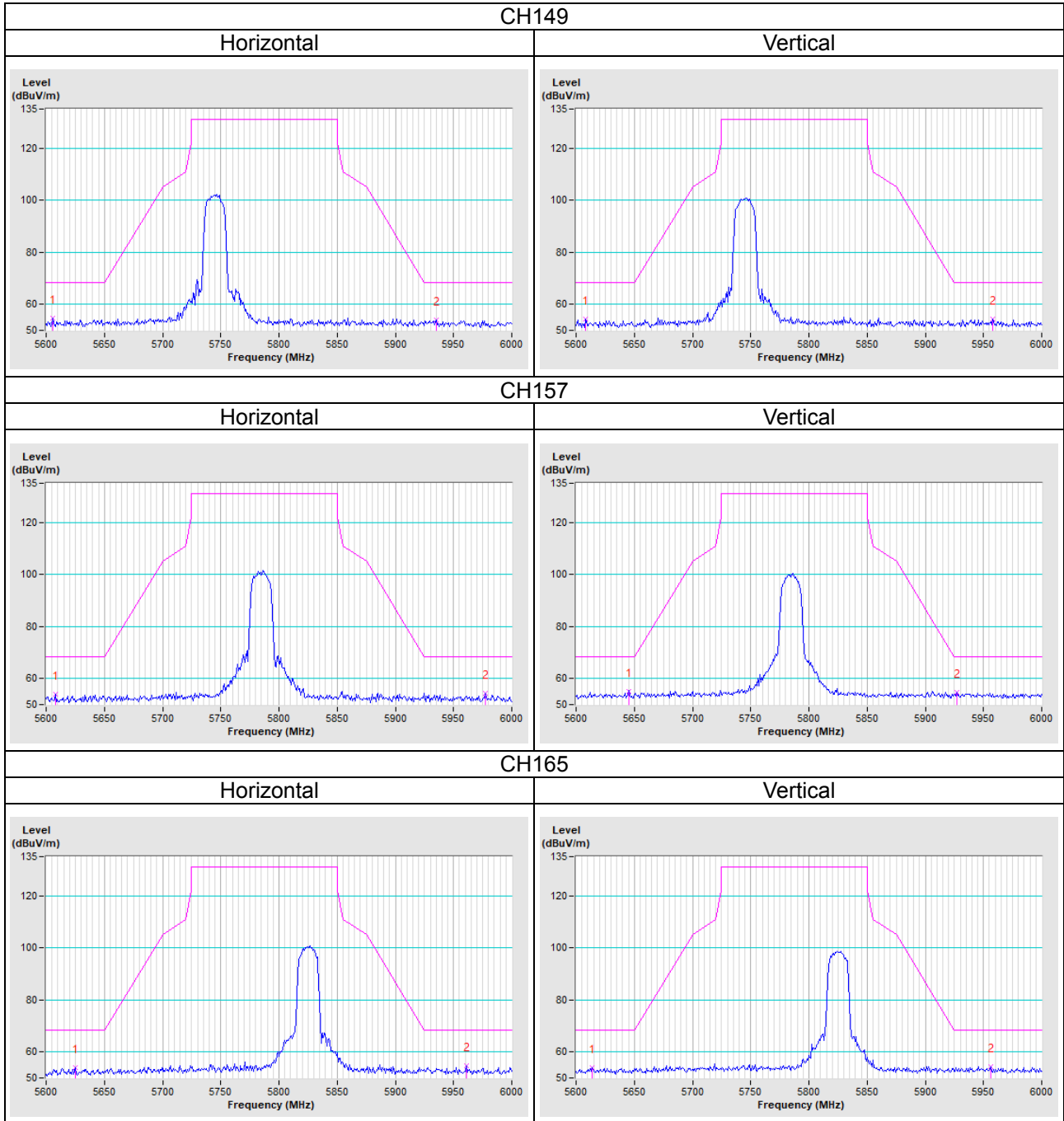
802.11a



802.11n (HT20)

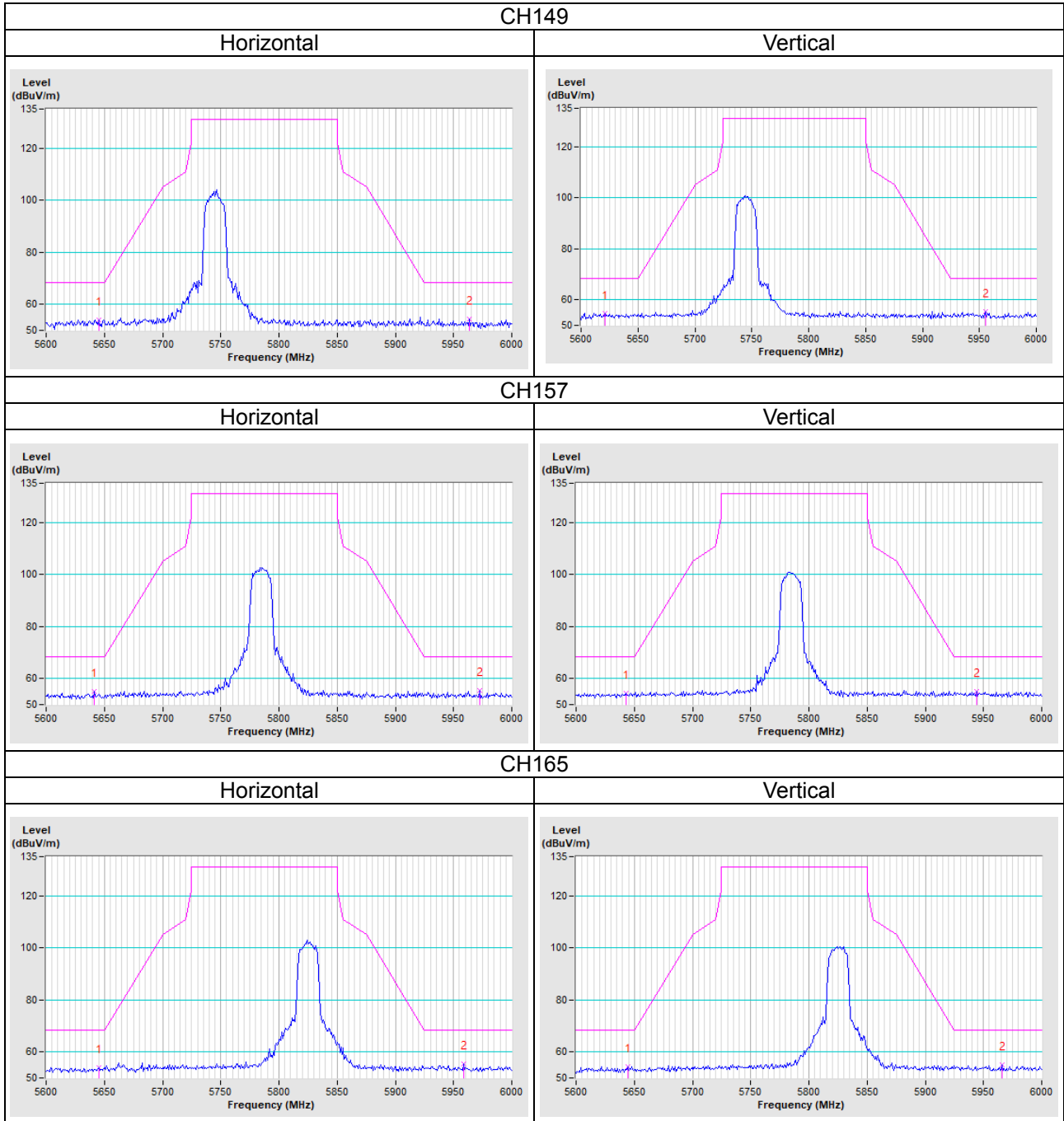


Mode B  
802.11a





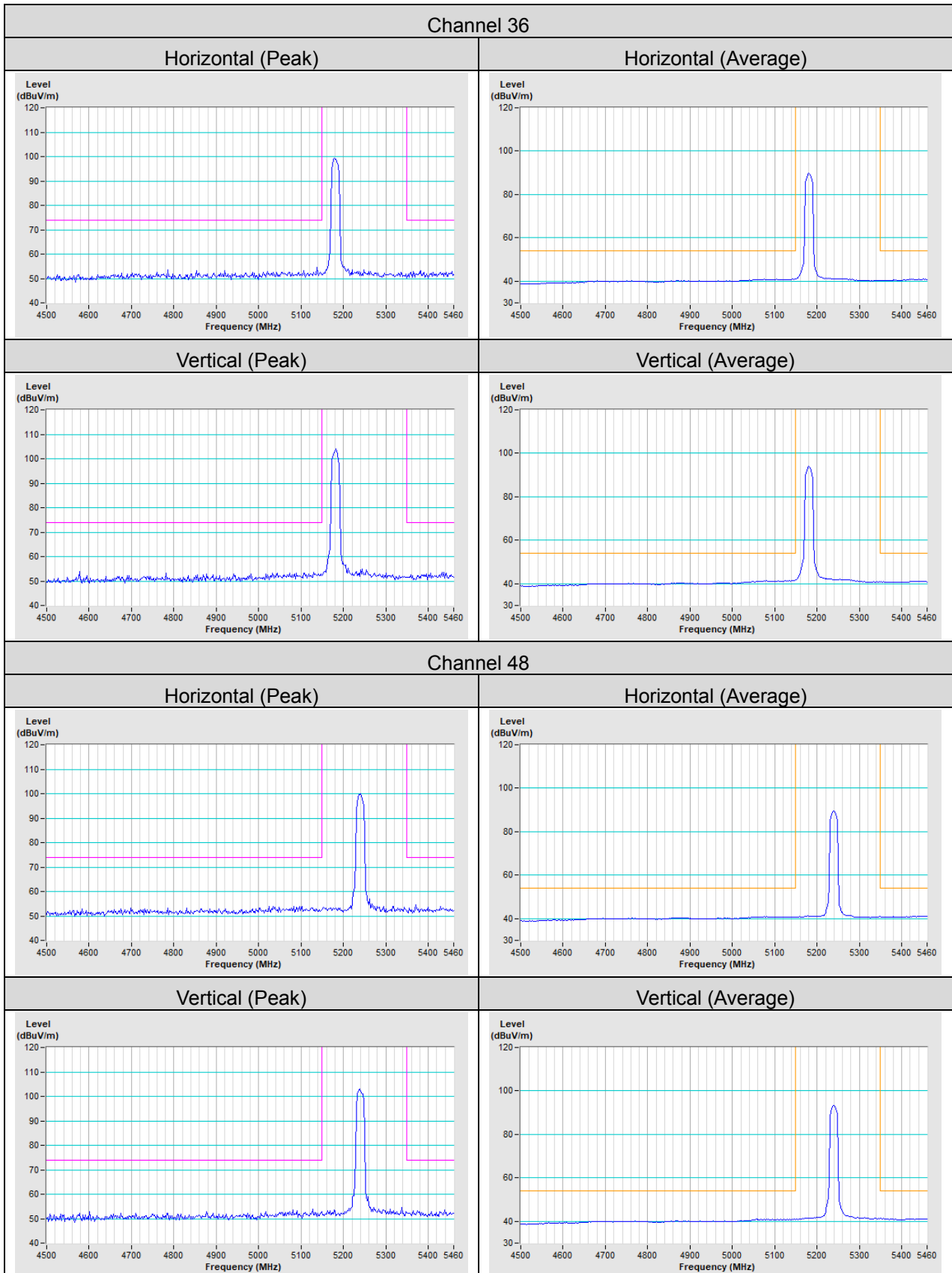
802.11n (HT20)



# Annex B- Band Edge Measurement

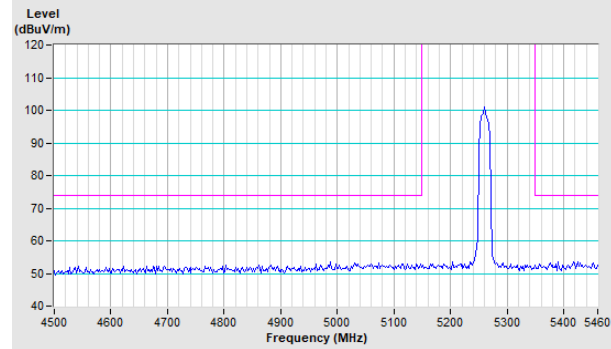
Mode A

802.11a

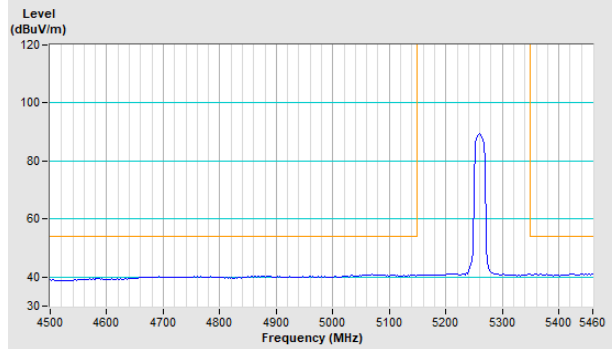


### Channel 52

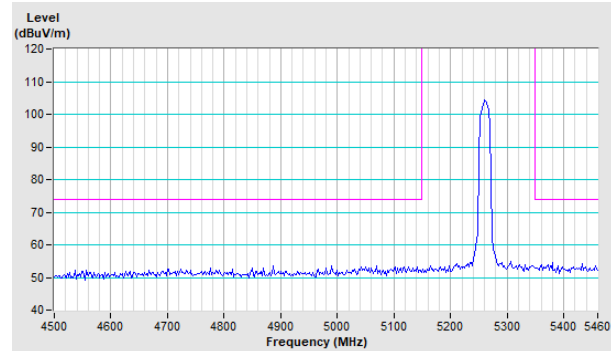
Horizontal (Peak)



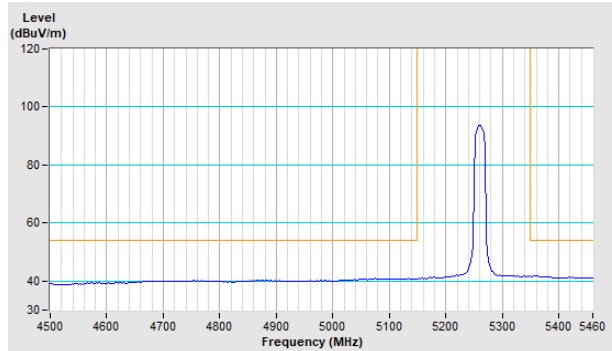
Horizontal (Average)



Vertical (Peak)

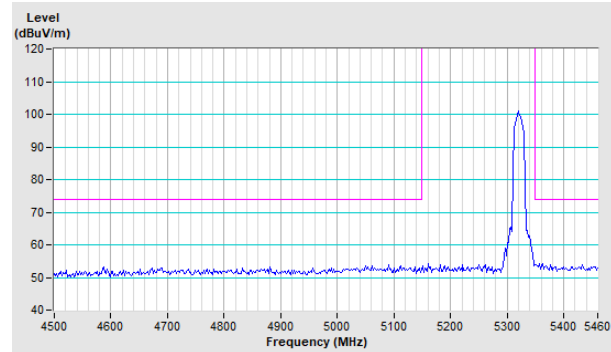


Vertical (Average)

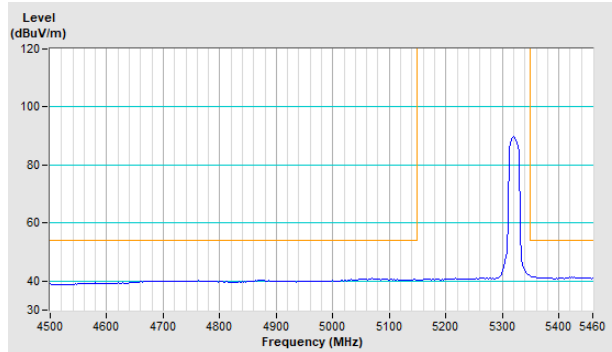


### Channel 64

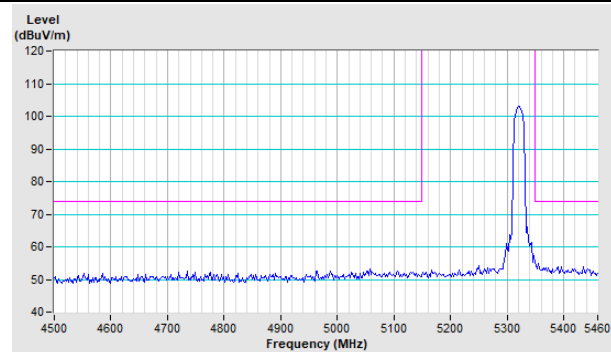
Horizontal (Peak)



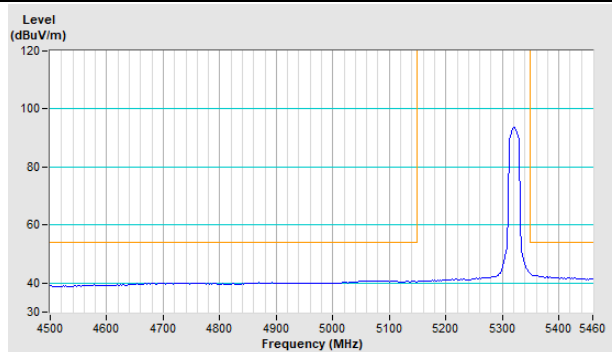
Horizontal (Average)



Vertical (Peak)

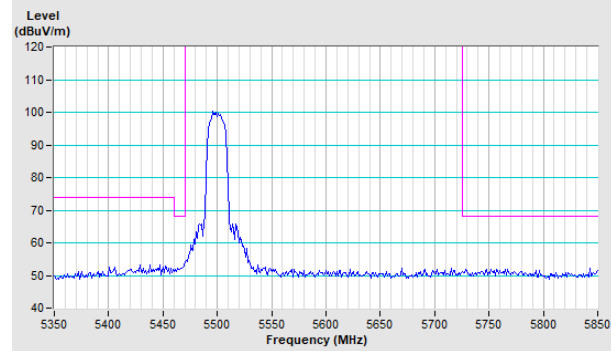


Vertical (Average)

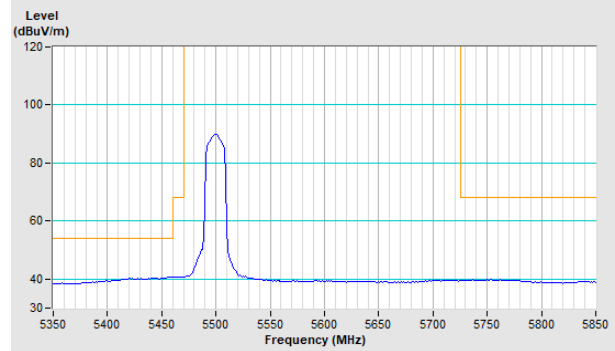


### Channel 100

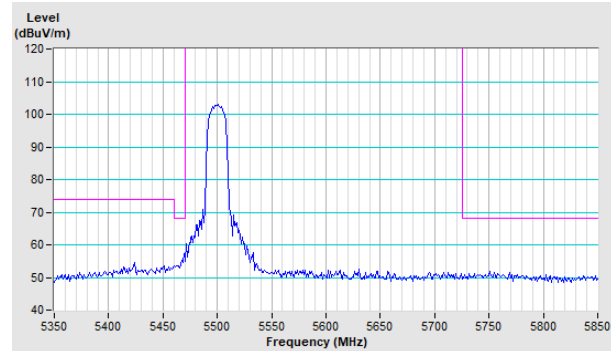
Horizontal (Peak)



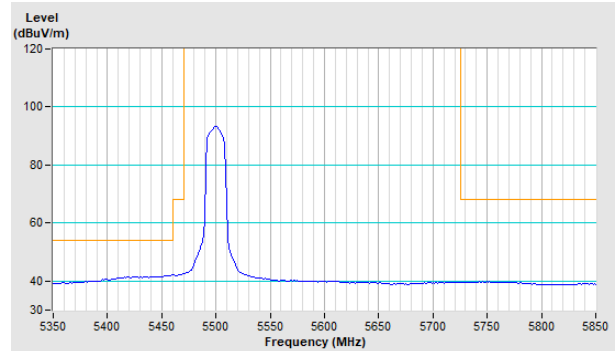
Horizontal (Average)



Vertical (Peak)

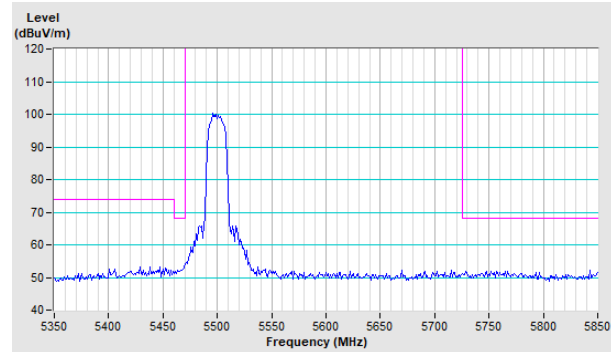


Vertical (Average)

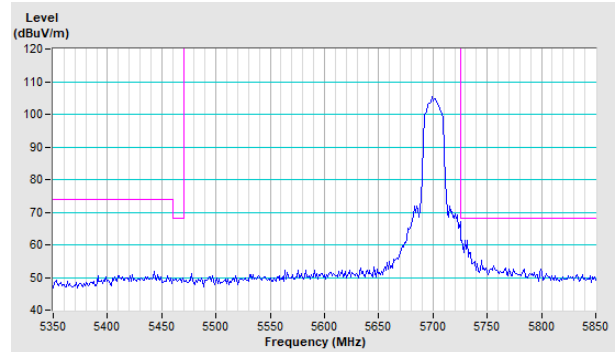


### Channel 140

Horizontal (Peak)

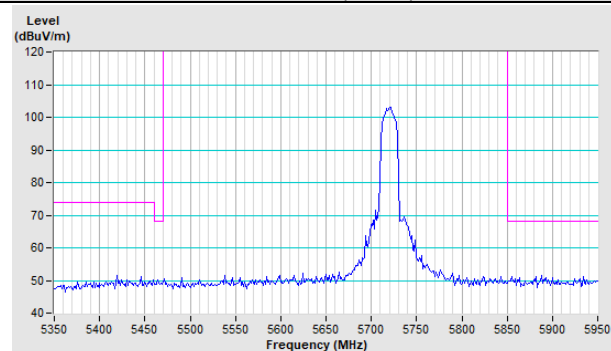


Vertical (Peak)

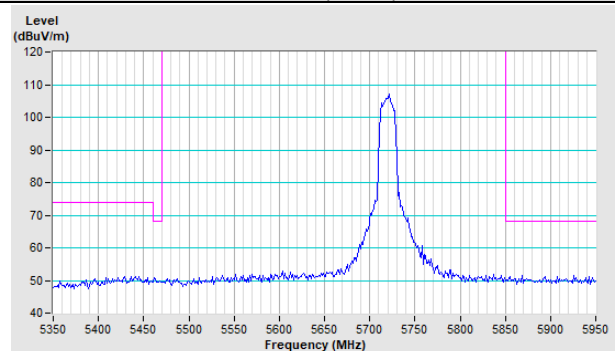


### Channel 144

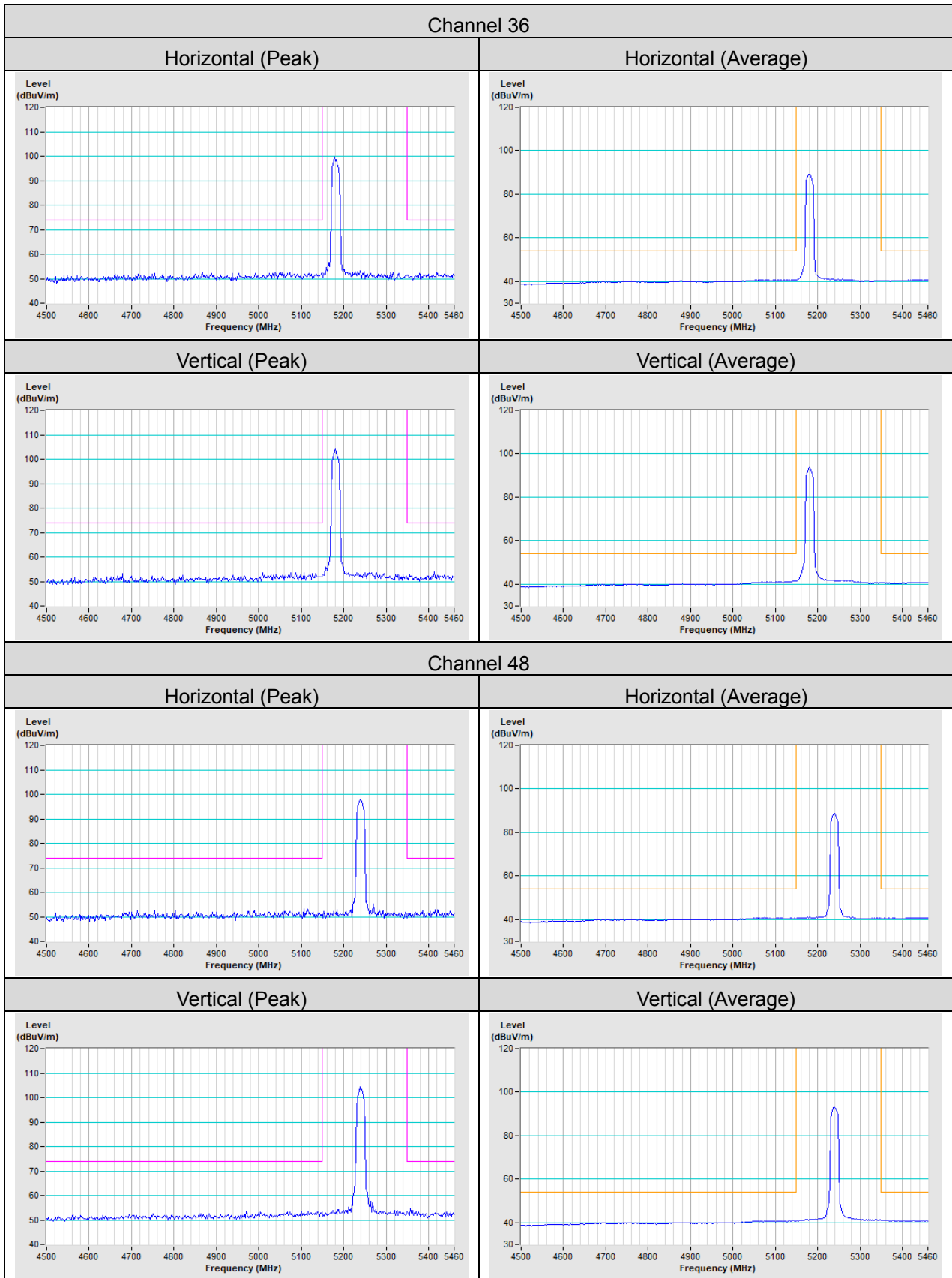
Horizontal (Peak)



Vertical (Peak)

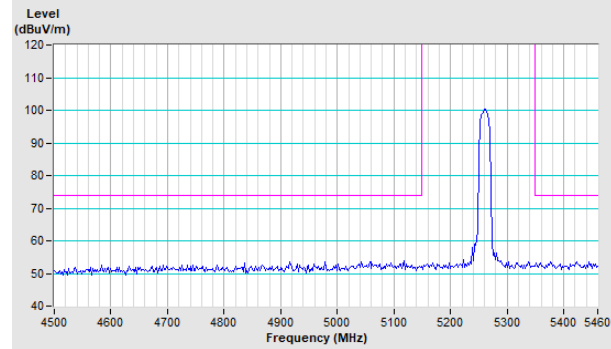


802.11n (HT20)

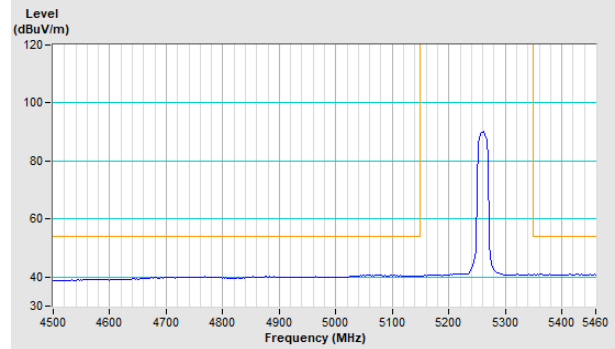


### Channel 52

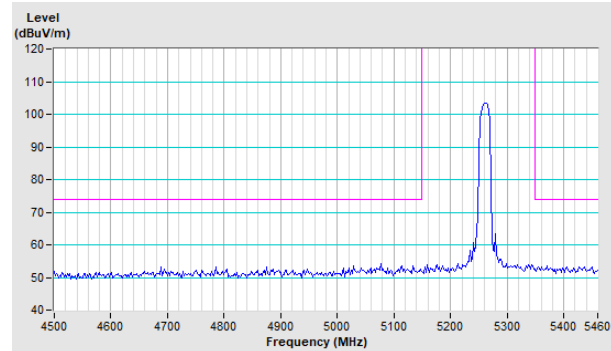
Horizontal (Peak)



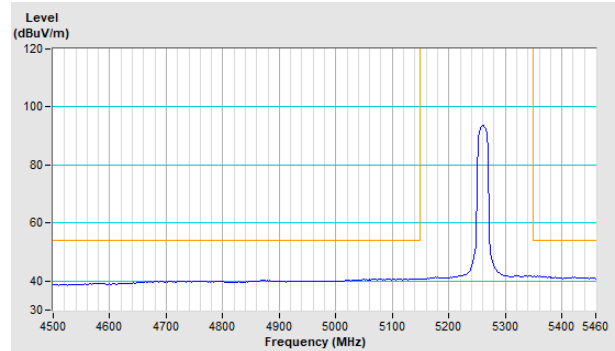
Horizontal (Average)



Vertical (Peak)

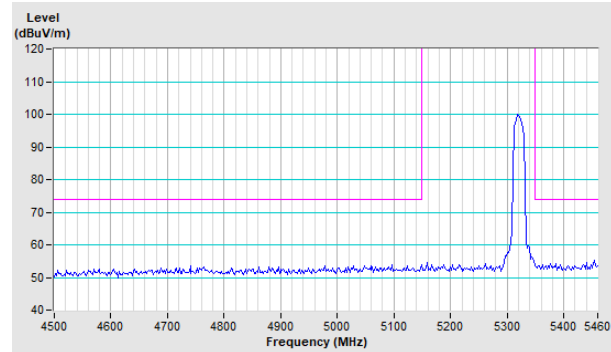


Vertical (Average)

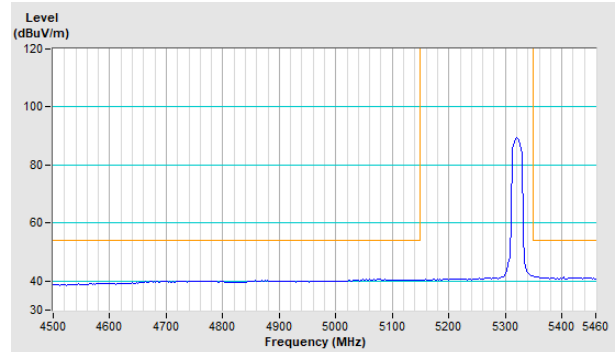


### Channel 64

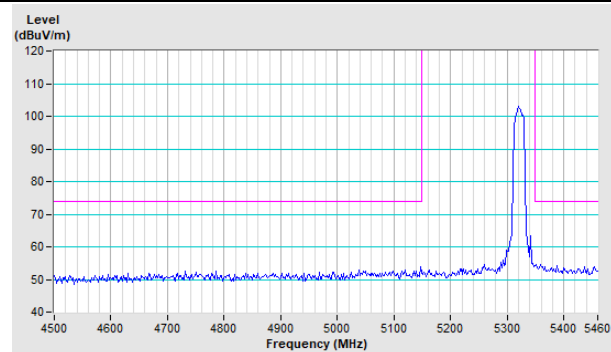
Horizontal (Peak)



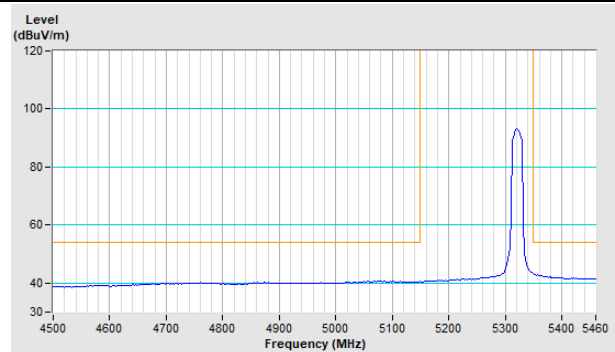
Horizontal (Average)



Vertical (Peak)

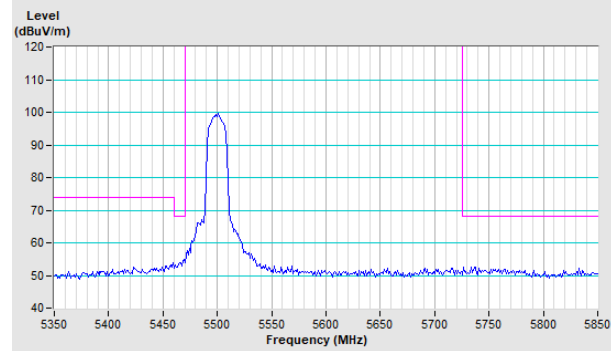


Vertical (Average)

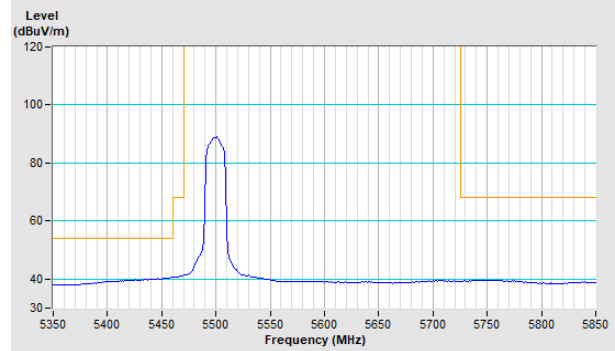


### Channel 100

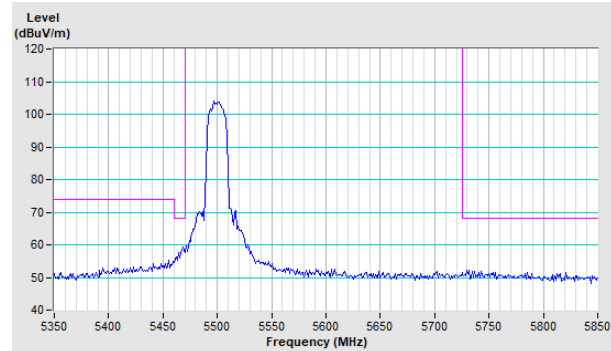
Horizontal (Peak)



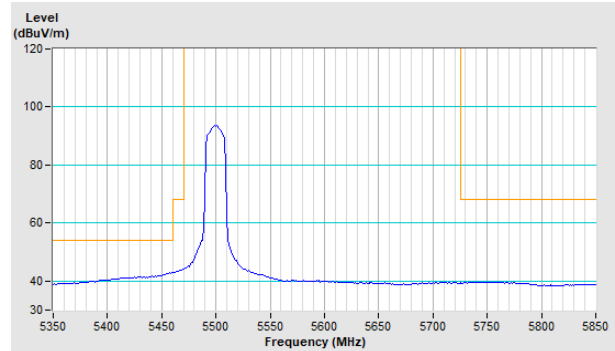
Horizontal (Average)



Vertical (Peak)

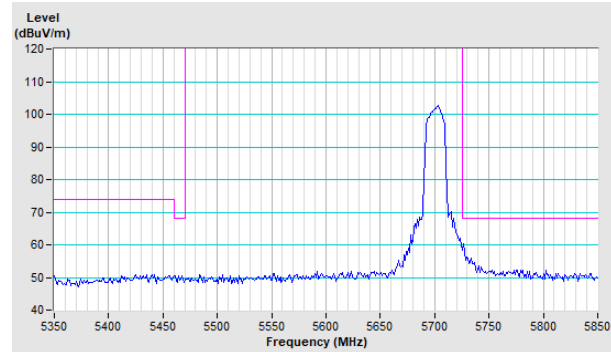


Vertical (Average)

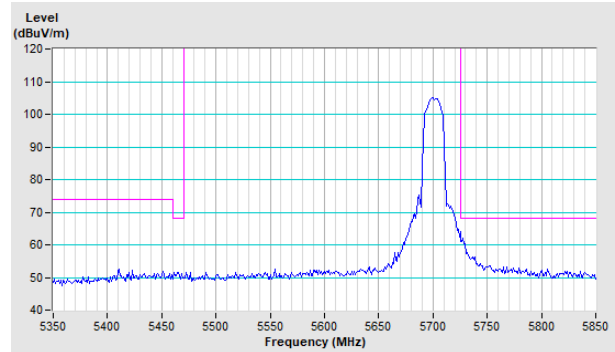


### Channel 140

Horizontal (Peak)

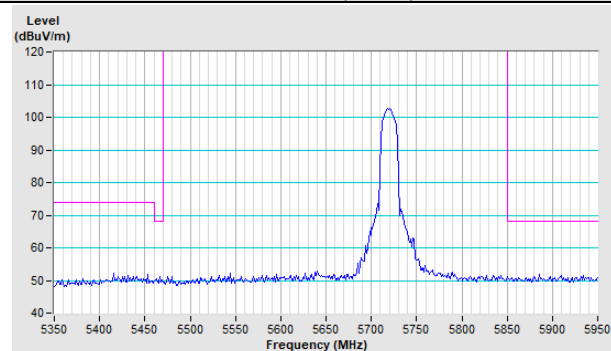


Vertical (Peak)

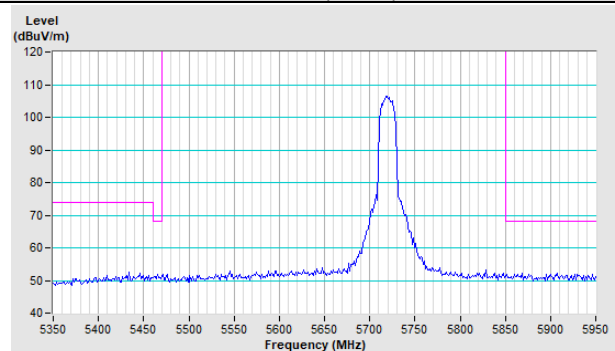


### Channel 144

Horizontal (Peak)

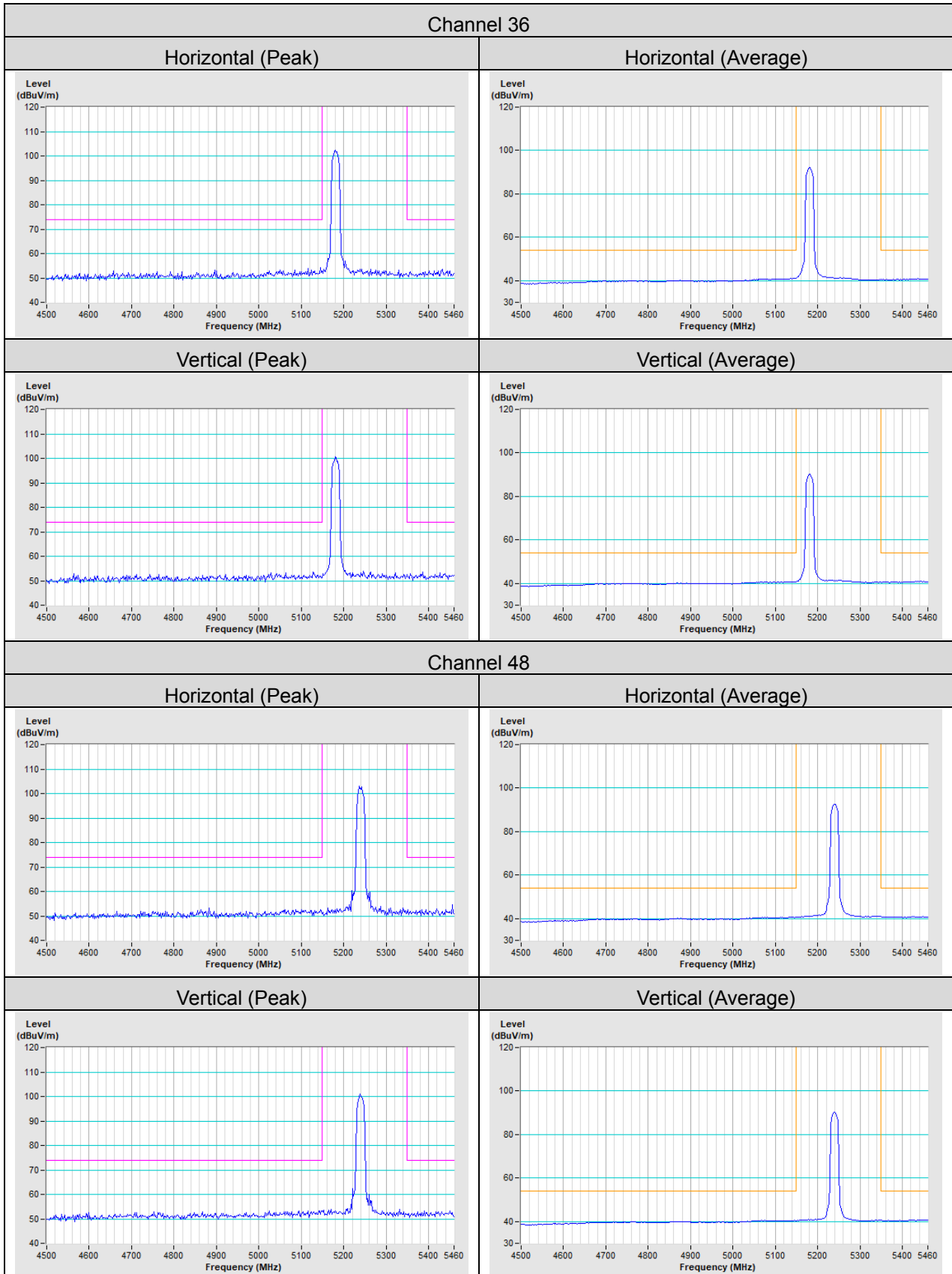


Vertical (Peak)



Mode B

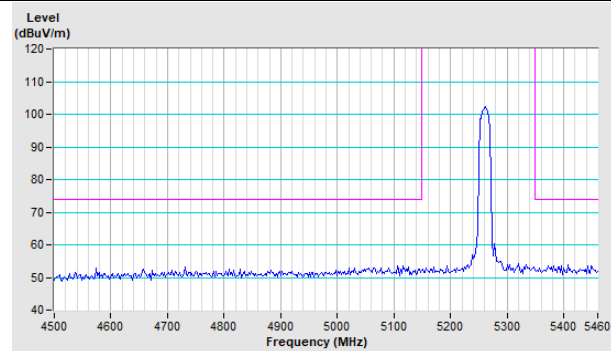
802.11a



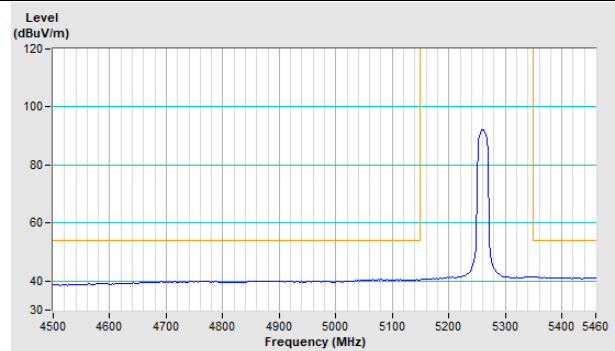


### Channel 52

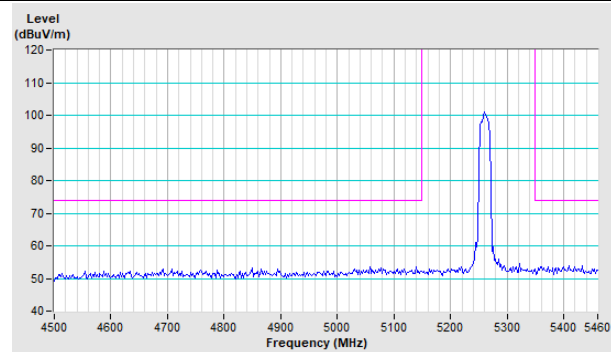
Horizontal (Peak)



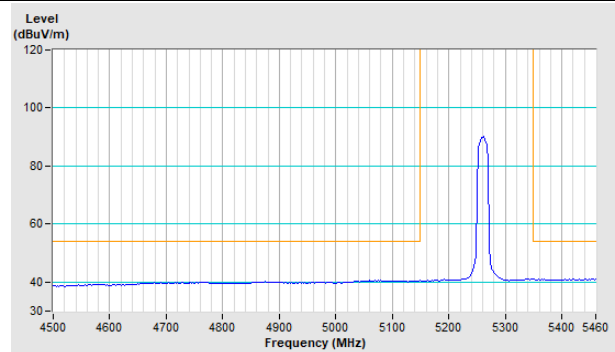
Horizontal (Average)



Vertical (Peak)

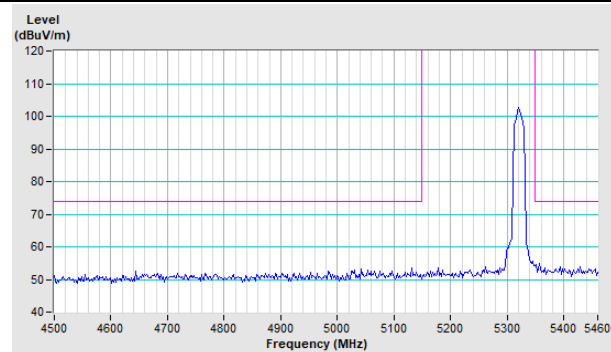


Vertical (Average)

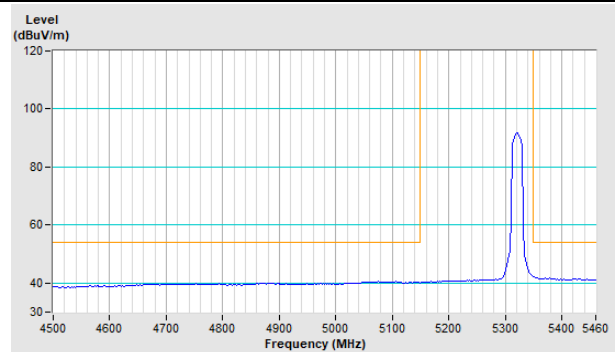


### Channel 64

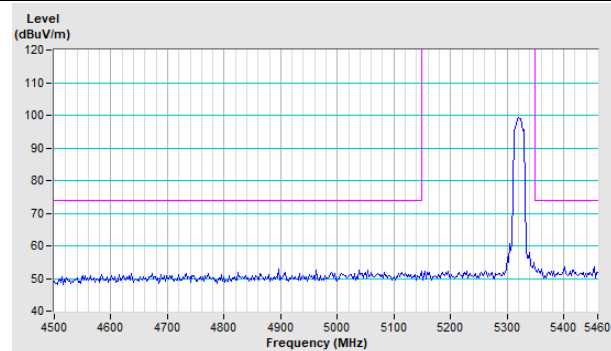
Horizontal (Peak)



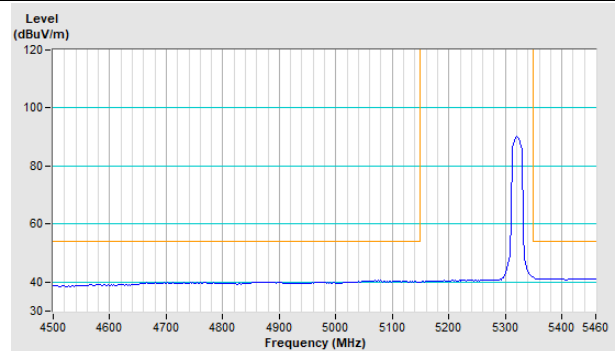
Horizontal (Average)

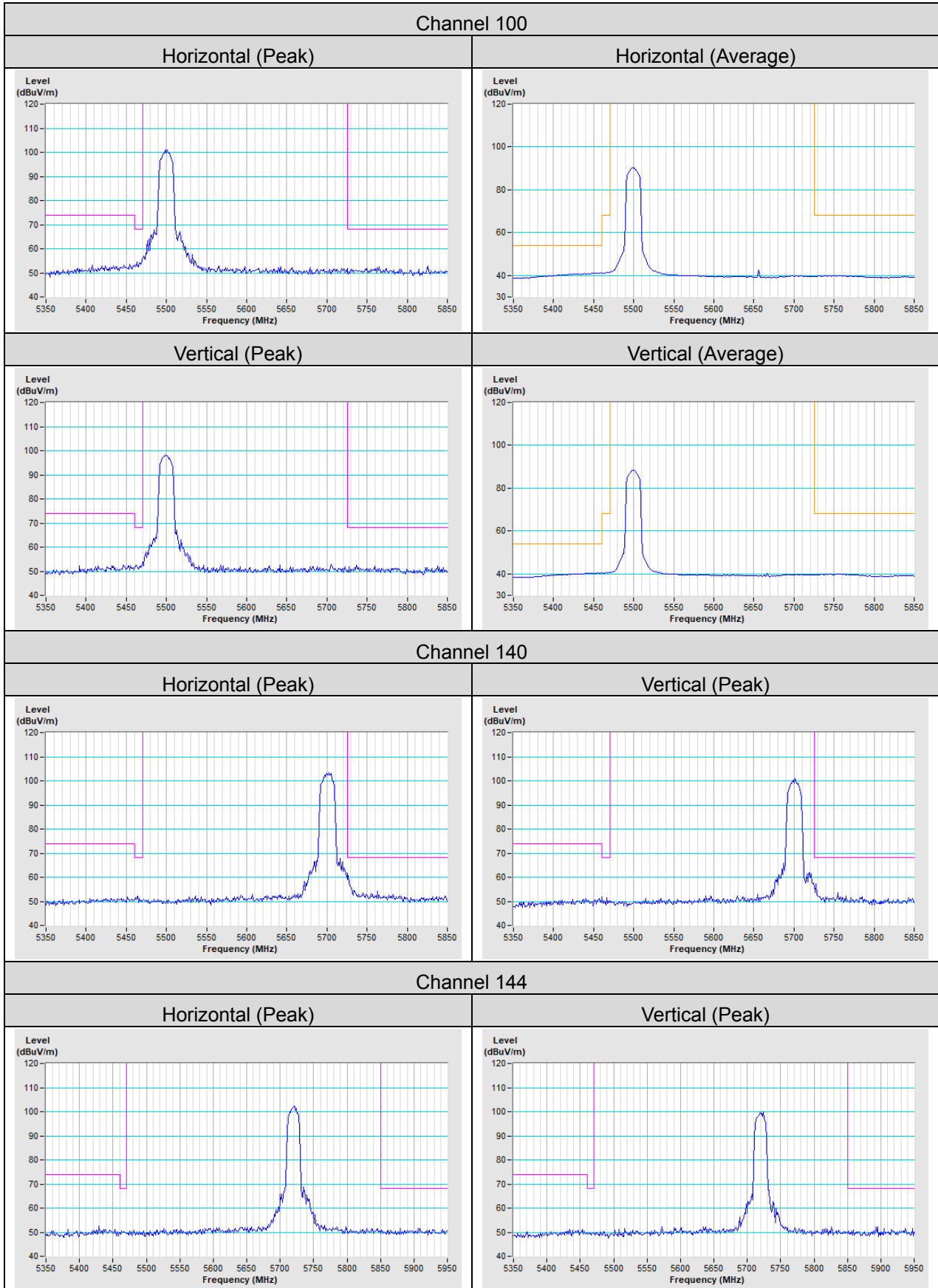


Vertical (Peak)

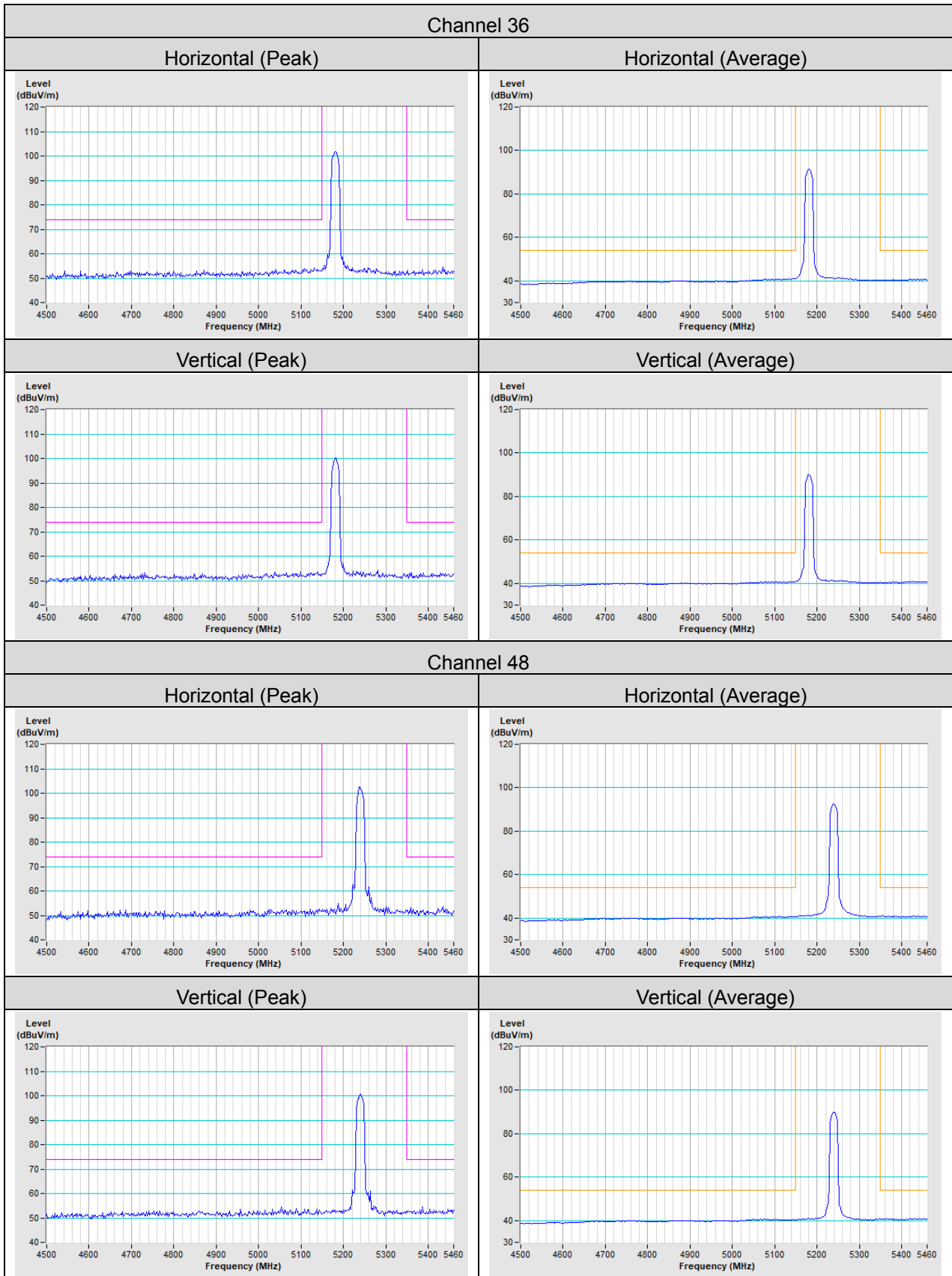


Vertical (Average)



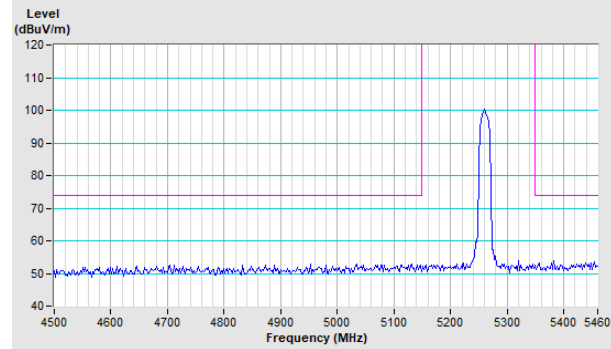


802.11n (HT20)

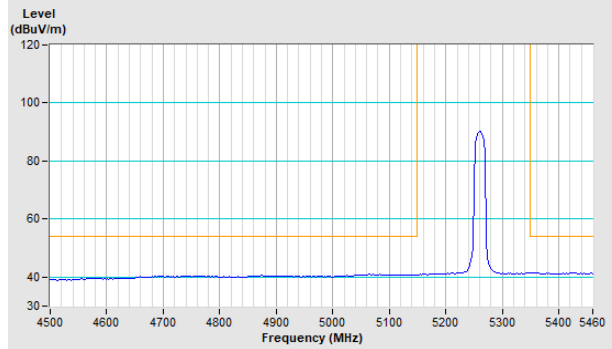


### Channel 52

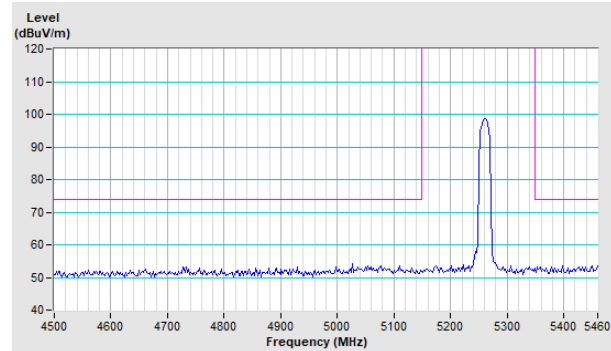
Horizontal (Peak)



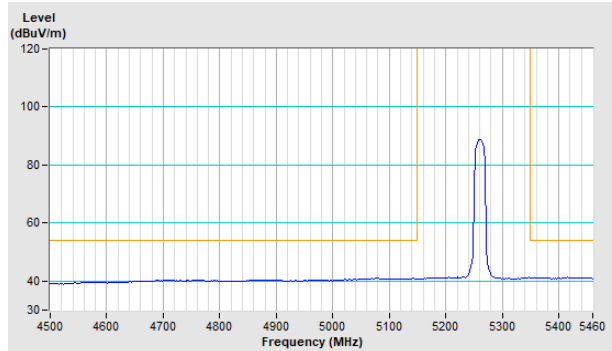
Horizontal (Average)



Vertical (Peak)

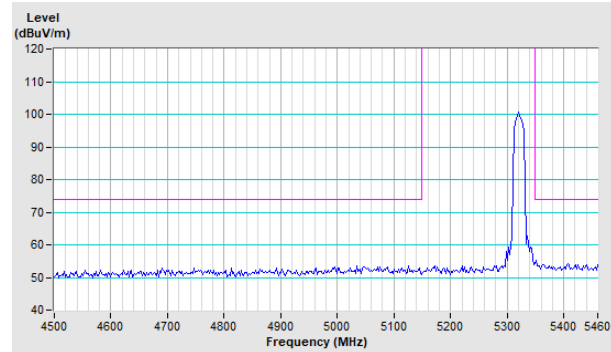


Vertical (Average)

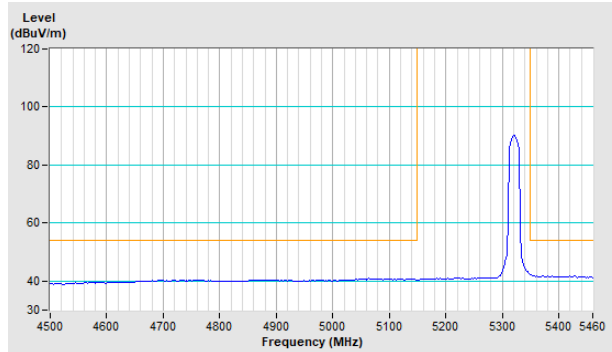


### Channel 64

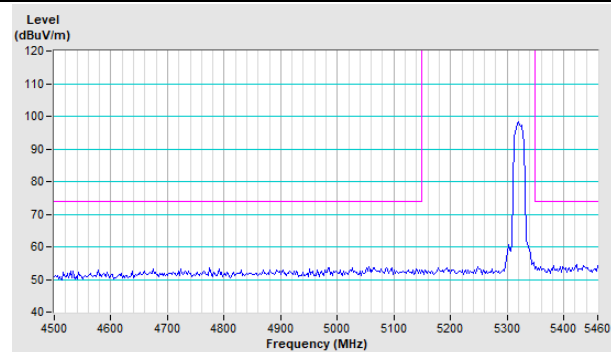
Horizontal (Peak)



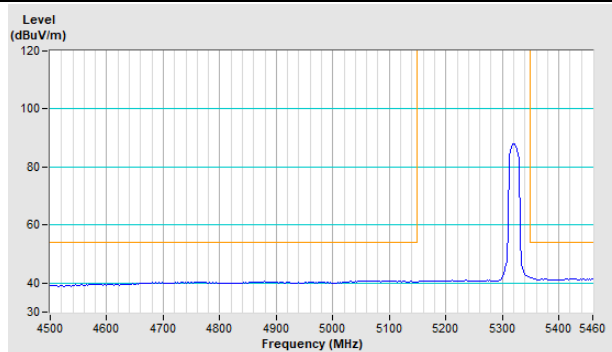
Horizontal (Average)



Vertical (Peak)

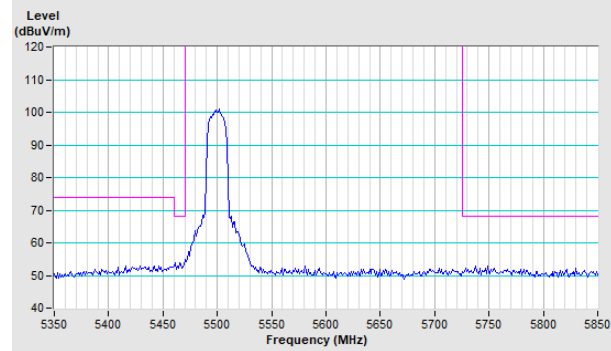


Vertical (Average)

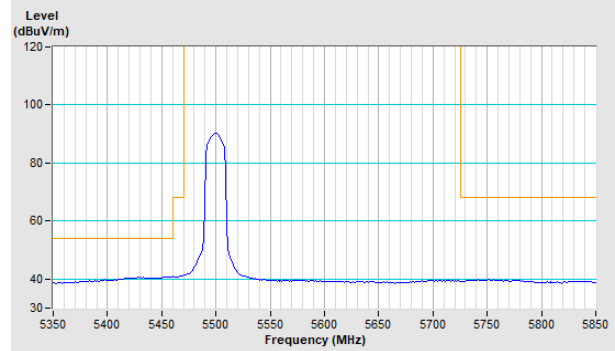


### Channel 100

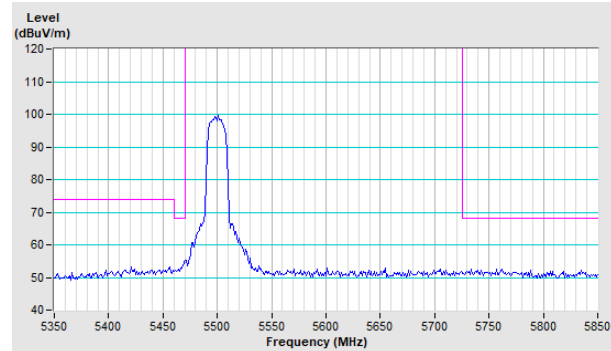
Horizontal (Peak)



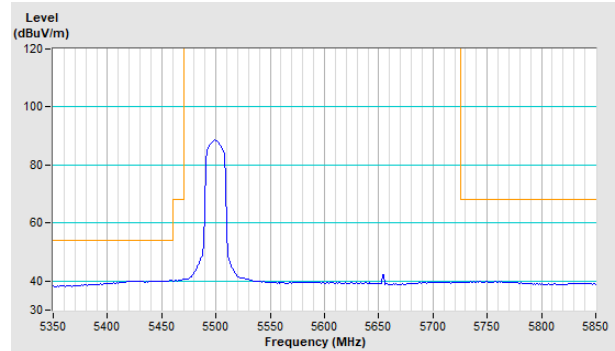
Horizontal (Average)



Vertical (Peak)

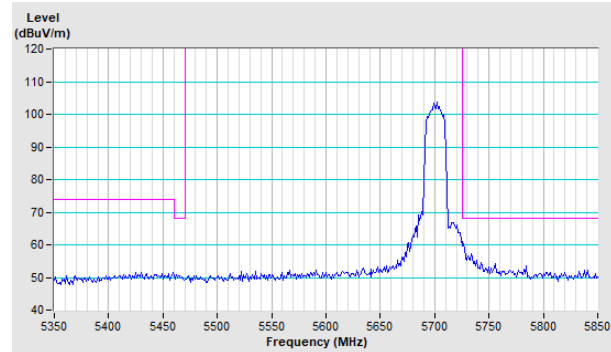


Vertical (Average)

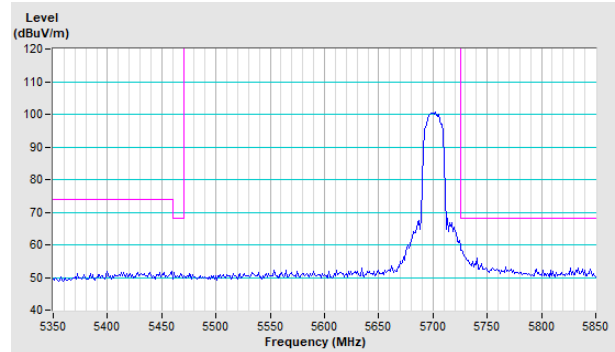


### Channel 140

Horizontal (Peak)

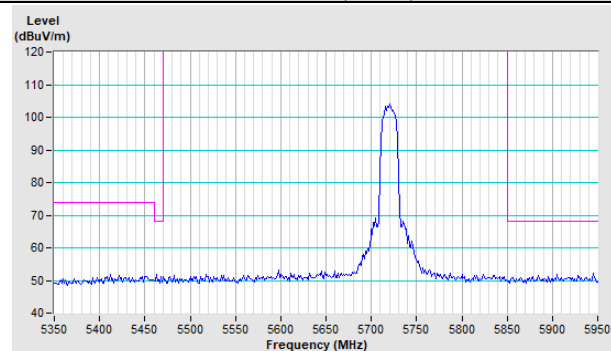


Vertical (Peak)

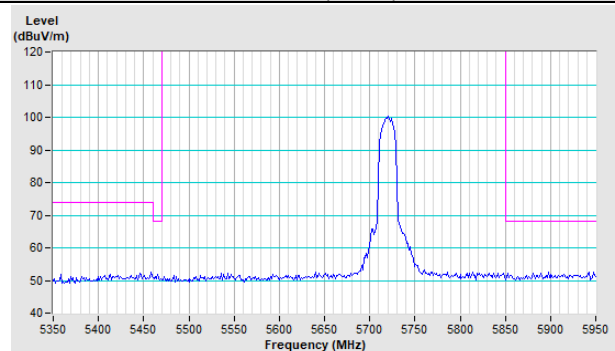


### Channel 144

Horizontal (Peak)



Vertical (Peak)



## Appendix – Information of the Testing Laboratories

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

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

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