



BUREAU VERITAS

Test Report No.: RF2104WDG0365-4



# TEST REPORT

Applicant	DEI Sales Inc., dba Polk Audio
Address	5541 Fermi Court Carlsbad CA 92008 United States Of America

Manufacturer or Supplier	DEI Sales Inc., dba Polk Audio
Address	5541 Fermi Court Carlsbad CA 92008 United States Of America
Product Name	Magnifi Mini AX Ultra-Compact Sound Bar System
Brand Name	polk
Model	MAGNIFI MINI AX SOUND BAR
Additional Model & Model Difference	N/A
Date of tests	Apr. 30, 2021 ~ Oct. 11, 2021

The tests have been carried out according to the requirements of the following standard:

**FCC Part 15, Subpart E, Section 15.407**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Tested by Lucas Chen  
Project Engineer / EMC Department

Approved by Glyn He  
Assistant Manager / EMC Department

Date: Dec. 09, 2021

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Test Report No.: RF2104WDG0365-4

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2104WDG0365-4	Original release.	Dec. 09, 2021



# 1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 UNDER NEW RULE)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex not a standard connector.

## 1.1 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	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.05dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	3.82dB
	1GHz ~ 18GHz	4.94dB
	18GHz ~ 40GHz	5.07dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT NAME</b>	Magnifi Mini AX Ultra-Compact Sound Bar System
<b>MODEL NO.</b>	MAGNIFI MINI AX SOUND BAR
<b>FCC ID</b>	WLQMINIAXSB
<b>POWER SUPPLY</b>	DC 15V from Adapter
<b>MODULATION TYPE</b>	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac : up to 866.7Mbps
<b>OPERATING FREQUENCY</b>	5150 ~ 5250MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, (without open 5600~5650MHz) 5725 ~ 5850MHz
<b>NUMBER OF CHANNEL</b>	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 1 channel for 802.11ac 80MHz 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 1 channel for 802.11ac (80MHz) 5500 ~ 5700MHz: (Without open 5600~5650MHz) 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 1 channel for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz) 1 channel for 802.11ac (80MHz)
<b>CONDUCTED OUTPUT POWER</b>	12.531mW for 5180 ~ 5240MHz (Maximum AVG Power) 13.583mW for 5260 ~ 5320MHz (Maximum AVG Power) 12.134mW for 5500 ~ 5700MHz (Maximum AVG Power) 9.661mW for 5745 ~ 5825MHz (Maximum AVG Power)
<b>ANTENNA TYPE</b>	5180 ~ 5240MHz: Chain 0: FPCB antenna with 3.61dBi gain Chain 1: FPCB antenna with 3.60dBi gain 5260 ~ 5320MHz: Chain 0: FPCB antenna with 3.61dBi gain Chain 1: FPCB antenna with 3.60dBi gain 5500 ~ 5700MHz: Chain 0: FPCB antenna with 3.61dBi gain Chain 1: FPCB antenna with 3.60dBi gain 5745 ~ 5825MHz: Chain 0: FPCB antenna with 3.61dBi gain Chain 1: FPCB antenna with 3.60dBi gain
<b>I/O PORTS</b>	Refer to user's manual
<b>CABLE SUPPLIED</b>	Refer to user's manual



**NOTES:**

1. The working status of the two antennas is as follows.

MODULATION MODE	TX FUNCTION
802.11a	2 Chains(SISO)
802.11n (HT20), 802.11ac (VHT20)	2 Chains(MIMO)
802.11n (HT40), 802.11ac (VHT40)	2 Chains(MIMO)
802.11ac (VHT80)	2 Chains(MIMO)

\*The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case for final test were chosen 802.11n (HT20/HT40) and record in the report.


\* 802.11a provided a SISO function, the radiated emission above 1GHz and conducted emission test items are carried out on the maximum power “chain 1” antenna.

2. For a more detailed features description, please refer to the manufacturer’s specifications or the user’s manual.

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

4. Please refer to the EUT photo document (Reference No.: 2104WDG0365-1) for detailed product photo.

5. The EUT was powered by the following adapter:

ADAPTER	
BRAND:	
MODEL:	S065-1A150400M2
INPUT:	AC 100-240V 50/60Hz 1.5A
OUTPUT:	DC 15V/4A 60W
AC LINE:	Unshielded, detachable, 1.5m
DC LINE:	Unshielded, Non-detachable, 1.5m



## 2.2 DESCRIPTION OF TEST MODES

### FOR 5150 ~ 5250MHz

4 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	40	5200 MHz
44	5220 MHz	48	5240 MHz

2 channels are provided for 802.11a c 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

### FOR 5250 ~ 5350MHz

4 channels are provided for 802.11a, 802.11a c 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz

2 channels are provided for 802.11a c 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--





**FOR 5470 ~ 5725MHz**

11 channels are provided for 802.11a, 802.11a c 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	104	5520 MHz
108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz
124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz
140	5700 MHz	--	--

5 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	110	5550 MHz
118	5590 MHz	126	5630 MHz
134	5670 MHz	--	--

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	/	/

**FOR 5725 ~ 5850MHz**

5 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	153	5765MHz
157	5785MHz	161	5805MHz
165	5825MHz	--	--

2 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--



**2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL**

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	Powered by Adapter with wifi (5G) link

Where **RE≥1G**: Radiated Emission above 1GHz      **RE<1G**: Radiated Emission below 1GHz  
**PLC**: Power Line Conducted Emission      **APCM**: Antenna Port Conducted Measurement

**NOTE:**

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

**NOTE:** “-”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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
-	802.11a	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 112, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac 80MHz		106	106	OFDM	BPSK	29.3
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

**RADIATED EMISSION TEST (BELOW 1GHz):**

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250 5470-5725 5725-5850	36 to 48 100 to 140 149 to 165	36	OFDM	BPSK	6.0



**POWER LINE CONDUCTED EMISSION TEST:**

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250 5470-5725 5725-5850	36 to 48 100 to 140 149 to 165	-	OFDM	BPSK	6.0

**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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
-	802.11a	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 112, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac 80MHz		106	106	OFDM	BPSK	29.3
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	24deg. C, 55%RH	DC 15V from Adapter	Jelly
RE≥1G	24deg. C, 55%RH	DC 15V from Adapter	Jelly
PLC	20deg. C, 56%RH	DC 15V from Adapter	Ming Bai
APCM	20deg. C, 55%RH	DC 15V from Adapter	Vincent



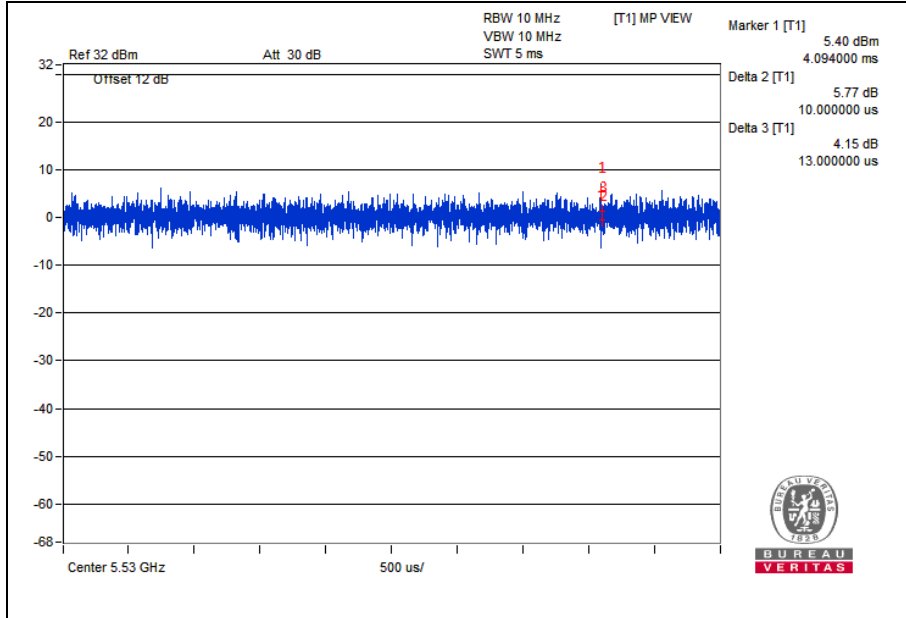
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## 2.3 DUTY CYCLE OF TEST SIGNAL

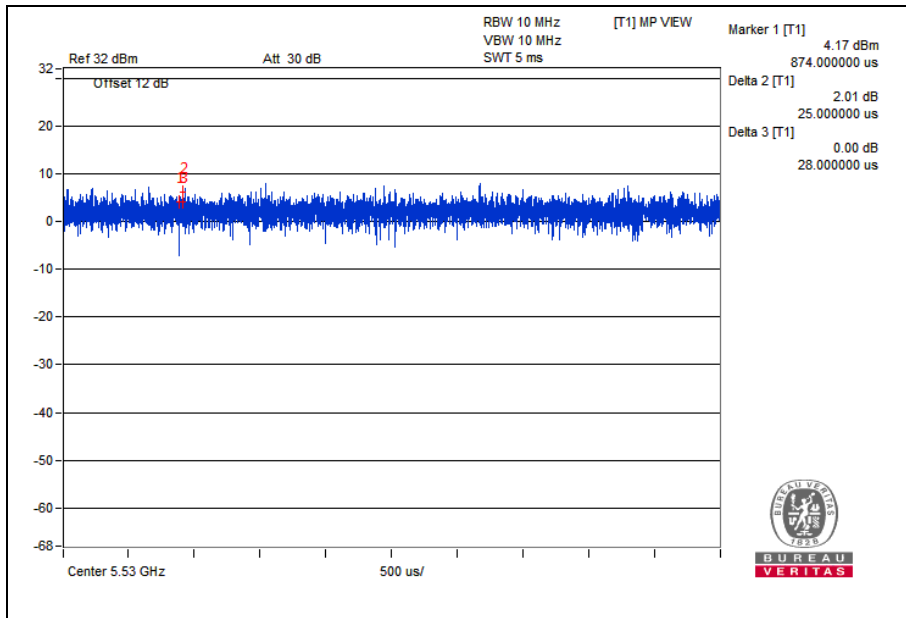
### Chain 0:

Duty cycle of test signal is 100 %



### Chain 1:

Duty cycle of test signal is 100 %





### 2.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Dummy Load	N/A	N/A	N/A	N/A
2	USB Driver	Kingston	DataTraveler	3RJD8-68DC4U-3VFWW	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	Optical Cable: Unshielded, detachable, 1.8m. HDMI Cable: Shielded, detachable, 200cm with two cores; AC Cable: Unshielded, detachable, 180cm
2	N/A

### 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specification of the EUT declared by the manufacturer, it must comply with the requirements of the following standards:

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

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

**KDB 662911 D01 Multiple Transmitter Output v02r01**

**ANSI C63.10-2013**

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



### 3. TEST TYPES AND RESULTS

#### 3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

##### 3.1.1 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

**NOTES:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.



### 3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

**NOTE:** For transmitters operating in the 5.725-5.85 GHz band:

Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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



### 3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 07,22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 09, 22
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 29,22
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 13,22
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	May 29,22
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 29,22
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	May 09, 22
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22,22
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	May 08,22
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Mar. 13,22
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A

**NOTES:**

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
3. The FCC Site Registration No. is 749762.





### 3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. 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 antenna is a broadband antenna, and its height 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

#### **NOTES:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection 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 > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

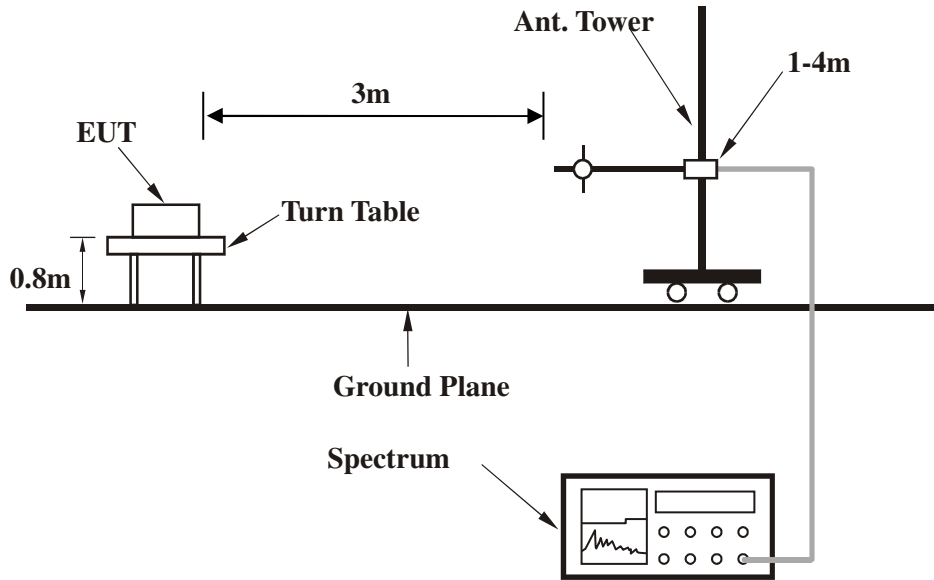
### 3.1.5 DEVIATION FROM TEST STANDARD

No deviation.



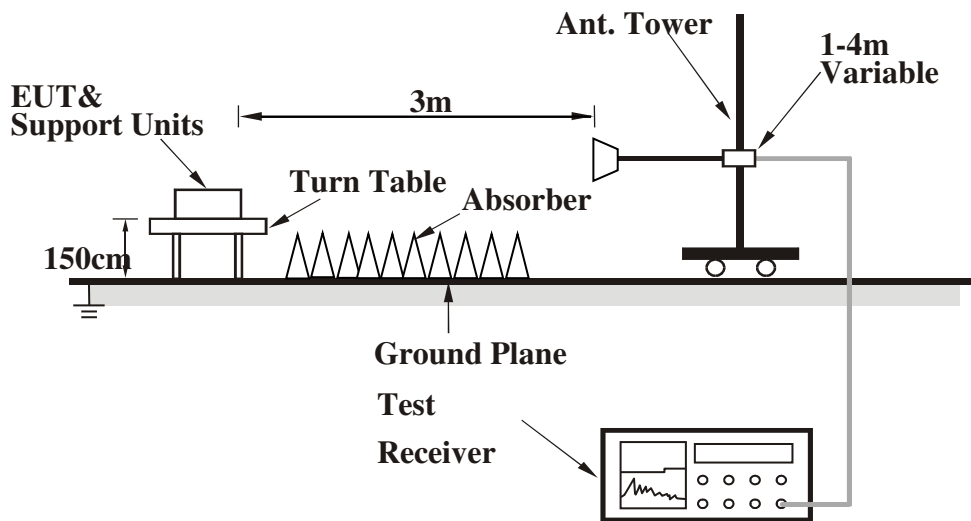
### 3.1.6 TEST SETUP

#### Below 1GHz test setup



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

#### Above 1GHz test setup



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



**BUREAU  
VERITAS**

**Test Report No.: RF2104WDG0365-4**

### 3.1.7 EUT OPERATING CONDITION

- a. Set the EUT under full load condition and placed them on a testing table.
- b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the EUT in full functions.



**3.1.8 FTEST RESULTS**

**BELOW 1GHz WORST-CASE DATA**

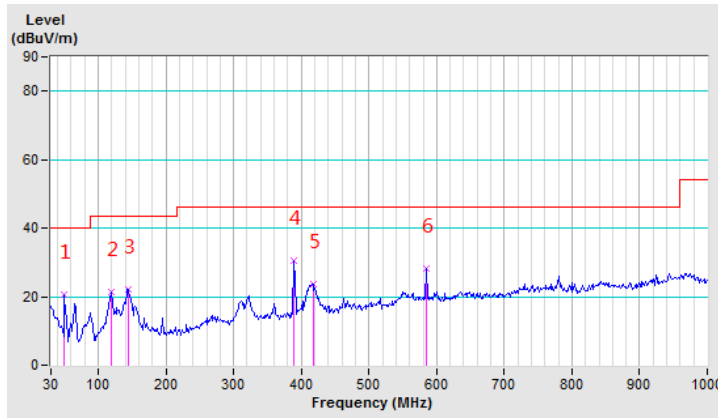
**802.11a**

<b>CHANNEL</b>	TX Channel 36	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	30MHz ~ 1GHz		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	50.21	20.57 QP	40.00	-19.43	1.50 H	152	41.93	-21.36
2	120.16	21.33 QP	43.50	-22.17	1.50 H	303	41.56	-20.23
3	145.03	22.09 QP	43.50	-21.41	1.50 H	179	40.34	-18.25
4	389.09	30.47 QP	46.00	-15.53	1.50 H	204	44.61	-14.14
5	417.07	23.70 QP	46.00	-22.30	1.50 H	82	36.61	-12.91
6	584.95	28.04 QP	46.00	-17.96	1.50 H	77	37.10	-9.06

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.



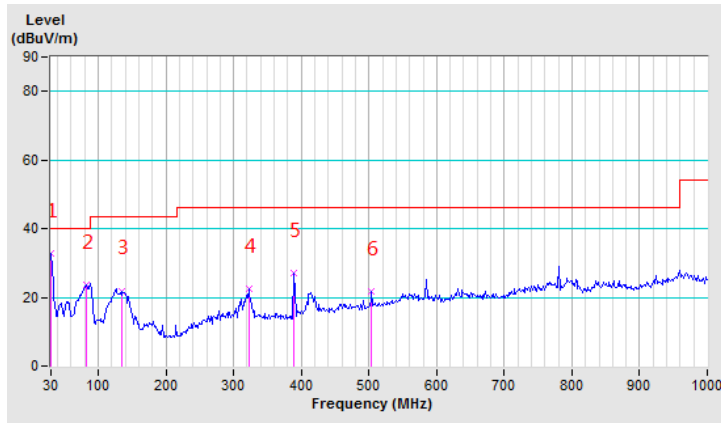


<b>CHANNEL</b>	TX Channel 36	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	32.87 QP	40.00	-7.13	1.50 V	191	45.87	-13.00
2	82.85	23.55 QP	40.00	-16.45	1.50 V	179	46.41	-22.86
3	134.15	21.92 QP	43.50	-21.58	1.50 V	202	40.74	-18.82
4	322.24	22.53 QP	46.00	-23.47	1.50 V	166	38.64	-16.11
5	389.09	27.14 QP	46.00	-18.86	1.50 V	143	41.28	-14.14
6	504.12	21.60 QP	46.00	-24.40	1.50 V	155	32.74	-11.14

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





**Band 1 (5150-5250MHz):**

**ABOVE 1GHz DATA**

**802.11a**

<b>CHANNEL</b>	TX Channel 36	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	5148.39	54.28 PK	74.00	-19.72	1.00 H	52	42.36	11.92
2	5148.39	41.27 AV	54.00	-12.73	1.00 H	52	29.35	11.92
3	5150.00	52.93 PK	74.00	-21.07	1.00 H	52	41.00	11.93
4	5150.00	40.37 AV	54.00	-13.63	1.00 H	52	28.44	11.93
5	*5180.00	98.95 PK			1.00 H	52	87.00	11.95
6	*5180.00	91.17 AV			1.00 H	52	79.22	11.95
7	#10360.00	50.69 PK	68.20	-17.51	1.00 H	0	29.66	21.03
8	15540.00	55.26 PK	74.00	-18.74	1.00 H	0	29.54	25.72
9	15540.00	45.29 AV	54.00	-8.71	1.00 H	0	19.57	25.72

**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	5147.75	55.04 PK	74.00	-18.96	1.00 V	123	43.12	11.92
2	5147.75	42.48 AV	54.00	-11.52	1.00 V	123	30.56	11.92
3	5150.00	54.82 PK	74.00	-19.18	1.00 V	123	42.89	11.93
4	5150.00	42.76 AV	54.00	-11.24	1.00 V	123	30.83	11.93
5	*5180.00	105.32 PK			1.00 V	123	93.37	11.95
6	*5180.00	93.20 AV			1.00 V	123	81.25	11.95
7	#10360.00	51.30 PK	68.20	-16.90	1.00 V	0	30.27	21.03
8	15540.00	56.63 PK	74.00	-17.37	1.00 V	0	30.91	25.72
9	15540.00	47.85 AV	54.00	-6.15	1.00 V	0	22.13	25.72

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.





<b>CHANNEL</b>	TX Channel 40	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	5145.00	52.01 PK	74.00	-21.99	1.00 H	133	40.10	11.91
2	5145.00	40.33 AV	54.00	-13.67	1.00 H	133	28.42	11.91
3	5150.00	53.00 PK	74.00	-21.00	1.00 H	133	41.07	11.93
4	5150.00	40.25 AV	54.00	-13.75	1.00 H	133	28.32	11.93
5	*5200.00	100.34 PK			1.00 H	133	88.36	11.98
6	*5200.00	59.57 AV			1.00 H	133	47.59	11.98
7	#10400.00	54.32 PK	68.20	-13.88	1.00 H	0	33.25	21.07
8	15600.00	57.36 PK	74.00	-16.64	1.00 H	0	31.51	25.85
9	15600.00	45.21 AV	54.00	-8.79	1.00 H	0	19.36	25.85

**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	5145.00	52.38 PK	74.00	-21.62	1.00 V	125	40.47	11.91
2	5145.00	42.00 AV	54.00	-12.00	1.00 V	125	30.09	11.91
3	5150.00	53.14 PK	74.00	-20.86	1.00 V	125	41.21	11.93
4	5150.00	42.24 AV	54.00	-11.76	1.00 V	125	30.31	11.93
5	*5200.00	104.55 PK			1.00 V	125	92.57	11.98
6	*5200.00	94.36 AV			1.00 V	125	82.38	11.98
7	#10400.00	54.11 PK	68.20	-14.09	1.00 V	0	33.04	21.07
8	15600.00	57.36 PK	74.00	-16.64	1.00 V	0	31.51	25.85
9	15600.00	45.22 AV	54.00	-8.78	1.00 V	0	19.37	25.85

**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).
3. The emission levels of other frequencies were less than 20dB margin 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	5145.00	52.64 PK	74.00	-21.36	1.00 H	133	40.73	11.91
2	5145.00	42.39 AV	54.00	-11.61	1.00 H	133	30.48	11.91
3	5150.00	54.32 PK	74.00	-19.68	1.00 H	133	42.39	11.93
4	5150.00	42.58 AV	54.00	-11.42	1.00 H	133	30.65	11.93
5	*5240.00	100.41 PK			1.00 H	133	88.39	12.02
6	*5240.00	91.33 AV			1.00 H	133	79.31	12.02
7	5350.00	54.77 PK	74.00	-19.23	1.00 H	133	42.65	12.12
8	5350.00	44.00 AV	54.00	-10.00	1.00 H	133	31.88	12.12
9	5355.00	53.14 PK	74.00	-20.86	1.00 H	133	41.00	12.14
10	5355.00	42.62 AV	54.00	-11.38	1.00 H	133	30.48	12.14
11	#10480.00	54.25 PK	68.20	-13.95	1.00 H	0	33.09	21.16
12	15720.00	57.69 PK	74.00	-16.31	1.00 H	0	31.59	26.10
13	15720.00	45.37 AV	54.00	-8.63	1.00 H	0	19.27	26.10

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	5145.00	53.00 PK	74.00	-21.00	1.00 V	125	41.09	11.91
2	5145.00	42.70 AV	54.00	-11.30	1.00 V	125	30.79	11.91
3	5150.00	54.32 PK	74.00	-19.68	1.00 V	125	42.39	11.93
4	5150.00	43.65 AV	54.00	-10.35	1.00 V	125	31.72	11.93
5	*5240.00	105.01 PK			1.00 V	125	92.99	12.02
6	*5240.00	95.21 AV			1.00 V	125	83.19	12.02
7	5350.00	54.36 PK	74.00	-19.64	1.00 V	125	42.24	12.12
8	5350.00	43.68 AV	54.00	-10.32	1.00 V	125	31.56	12.12
9	5355.00	54.25 PK	74.00	-19.75	1.00 V	125	42.11	12.14
10	5355.00	43.11 AV	54.00	-10.89	1.00 V	125	30.97	12.14
11	#10480.00	53.69 PK	68.20	-14.51	1.00 V	0	32.53	21.16
12	15720.00	58.00 PK	74.00	-16.00	1.00 V	0	31.90	26.10
13	15720.00	45.65 AV	54.00	-8.35	1.00 V	0	19.55	26.10

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).
3. The emission levels of other frequencies were less than 20dB margin 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 (20MHz)

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	5145.00	52.47 PK	74.00	-21.53	1.00 H	127	40.56	11.91
2	5145.00	40.97 AV	54.00	-13.03	1.00 H	127	29.06	11.91
3	5150.00	53.11 PK	74.00	-20.89	1.00 H	127	41.18	11.93
4	5150.00	41.27 AV	54.00	-12.73	1.00 H	127	29.34	11.93
5	*5180.00	95.22 PK			1.00 H	127	83.27	11.95
6	*5180.00	84.69 AV			1.00 H	127	72.74	11.95
7	#10360.00	53.85 PK	68.20	-14.35	1.00 H	0	32.82	21.03
8	15540.00	58.07 PK	74.00	-15.93	1.00 H	0	32.35	25.72
9	15540.00	45.32 AV	54.00	-8.68	1.00 H	0	19.60	25.72

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

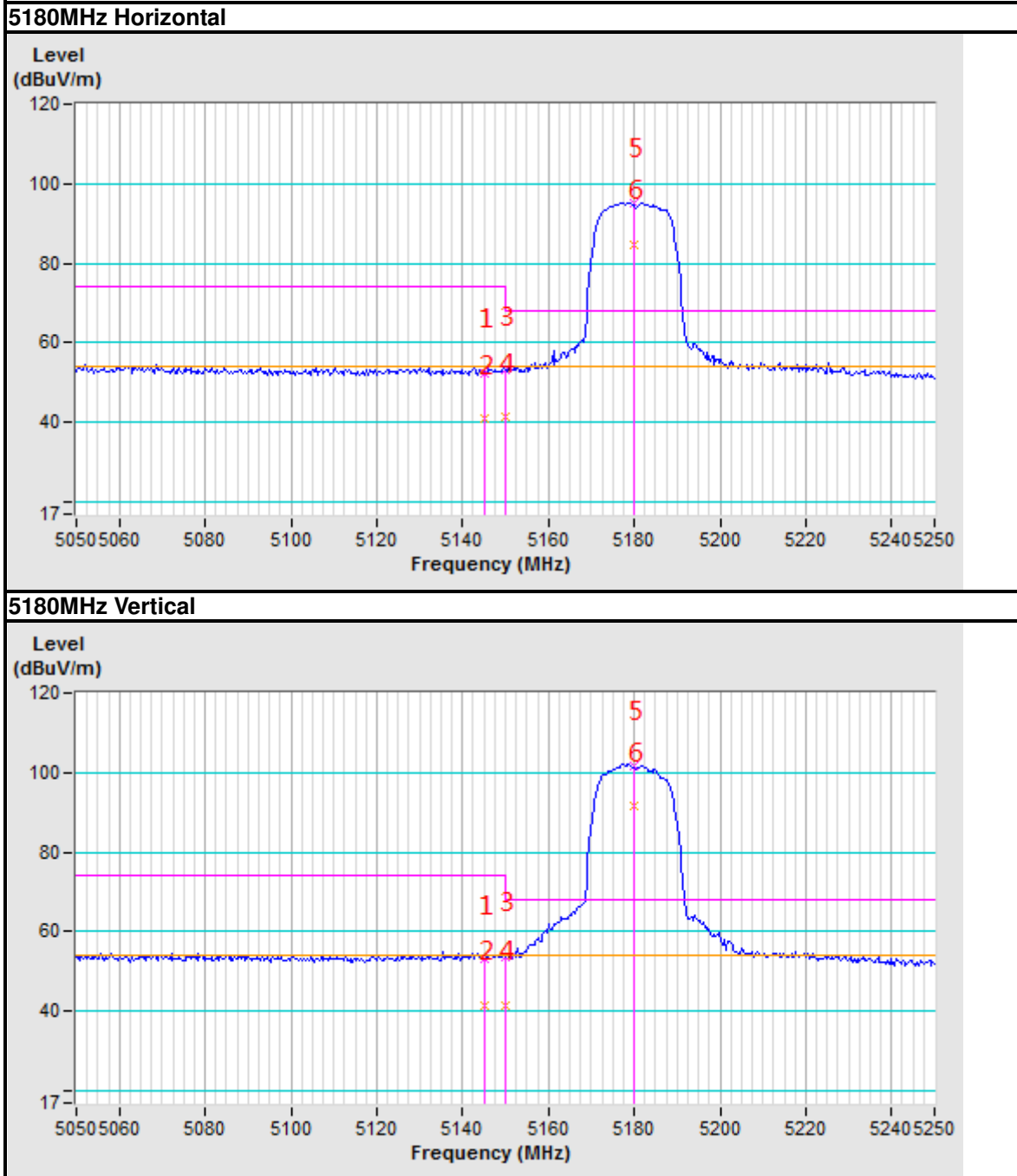
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	53.15 PK	74.00	-20.85	1.00 V	145	41.24	11.91
2	5145.00	41.47 AV	54.00	-12.53	1.00 V	145	29.56	11.91
3	5150.00	53.74 PK	74.00	-20.26	1.00 V	145	41.81	11.93
4	5150.00	41.54 AV	54.00	-12.46	1.00 V	145	29.61	11.93
5	*5180.00	101.85 PK			1.00 V	145	89.90	11.95
6	*5180.00	91.61 AV			1.00 V	145	79.66	11.95
7	#10360.00	54.05 PK	68.20	-14.15	1.00 V	0	33.02	21.03
8	15540.00	57.62 PK	74.00	-16.38	1.00 V	0	31.90	25.72
9	15540.00	45.11 AV	54.00	-8.89	1.00 V	0	19.39	25.72

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





<b>CHANNEL</b>	TX Channel 40	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	5145.00	52.88 PK	74.00	-21.12	1.00 H	125	40.97	11.91
2	5145.00	41.00 AV	54.00	-13.00	1.00 H	125	29.09	11.91
3	5150.00	53.61 PK	74.00	-20.39	1.00 H	125	41.68	11.93
4	5150.00	41.65 AV	54.00	-12.35	1.00 H	125	29.72	11.93
5	*5200.00	95.14 PK			1.00 H	125	83.16	11.98
6	*5200.00	84.33 AV			1.00 H	125	72.35	11.98
7	#10400.00	53.89 PK	68.20	-14.31	1.00 H	0	32.82	21.07
8	15600.00	57.91 PK	74.00	-16.09	1.00 H	0	32.06	25.85
9	15600.00	46.00 AV	54.00	-8.00	1.00 H	0	20.15	25.85

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	5145.00	53.34 PK	74.00	-20.66	1.00 V	158	41.43	11.91
2	5145.00	42.16 AV	54.00	-11.84	1.00 V	158	30.25	11.91
3	5150.00	54.32 PK	74.00	-19.68	1.00 V	158	42.39	11.93
4	5150.00	42.54 AV	54.00	-11.46	1.00 V	158	30.61	11.93
5	*5200.00	101.24 PK			1.00 V	158	89.26	11.98
6	*5200.00	91.54 AV			1.00 V	158	79.56	11.98
7	#10400.00	54.35 PK	68.20	-13.85	1.00 V	0	33.28	21.07
8	15600.00	57.95 PK	74.00	-16.05	1.00 V	0	32.10	25.85
9	15600.00	45.33 AV	54.00	-8.67	1.00 V	0	19.48	25.85

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



<b>CHANNEL</b>	TX Channel 48	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	5145.00	53.38 PK	74.00	-20.62	1.00 H	135	41.47	11.91
2	5145.00	42.01 AV	54.00	-11.99	1.00 H	135	30.10	11.91
3	5150.00	54.35 PK	74.00	-19.65	1.00 H	135	42.42	11.93
4	5150.00	42.36 AV	54.00	-11.64	1.00 H	135	30.43	11.93
5	*5240.00	95.34 PK			1.00 H	135	83.32	12.02
6	*5240.00	89.54 AV			1.00 H	135	77.52	12.02
7	5350.00	54.68 PK	74.00	-19.32	1.00 H	135	42.56	12.12
8	5350.00	43.11 AV	54.00	-10.89	1.00 H	135	30.99	12.12
9	5355.00	52.11 PK	74.00	-21.89	1.00 H	135	39.97	12.14
10	5355.00	42.68 AV	54.00	-11.32	1.00 H	135	30.54	12.14
11	#10480.00	53.92 PK	68.20	-14.28	1.00 H	0	32.76	21.16
12	15720.00	58.01 PK	74.00	-15.99	1.00 H	0	31.91	26.10
13	15720.00	45.36 AV	54.00	-8.64	1.00 H	0	19.26	26.10

**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	5145.00	53.81 PK	74.00	-20.19	1.00 V	147	41.90	11.91
2	5145.00	42.55 AV	54.00	-11.45	1.00 V	147	30.64	11.91
3	5150.00	54.22 PK	74.00	-19.78	1.00 V	147	42.29	11.93
4	5150.00	43.21 AV	54.00	-10.79	1.00 V	147	31.28	11.93
5	*5240.00	101.25 PK			1.00 V	147	89.23	12.02
6	*5240.00	91.00 AV			1.00 V	147	78.98	12.02
7	5350.00	54.74 PK	74.00	-19.26	1.00 V	147	42.62	12.12
8	5350.00	43.08 AV	54.00	-10.92	1.00 V	147	30.96	12.12
9	5355.00	53.51 PK	74.00	-20.49	1.00 V	147	41.37	12.14
10	5355.00	42.31 AV	54.00	-11.69	1.00 V	147	30.17	12.14
11	#10480.00	54.29 PK	68.20	-13.91	1.00 V	0	33.13	21.16
12	15720.00	57.68 PK	74.00	-16.32	1.00 V	0	31.58	26.10
13	15720.00	45.23 AV	54.00	-8.77	1.00 V	0	19.13	26.10

**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).
3. The emission levels of other frequencies were less than 20dB margin 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 (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	53.00 PK	74.00	-21.00	1.00 H	145	41.09	11.91
2	5145.00	41.00 AV	54.00	-13.00	1.00 H	145	29.09	11.91
3	5150.00	53.65 PK	74.00	-20.35	1.00 H	145	41.72	11.93
4	5150.00	41.19 AV	54.00	-12.81	1.00 H	145	29.26	11.93
5	*5190.00	94.31 PK			1.00 H	145	82.34	11.97
6	*5190.00	83.64 AV			1.00 H	145	71.67	11.97
7	#10380.00	54.24 PK	68.20	-13.96	1.00 H	0	33.19	21.05
8	15570.00	58.13 PK	74.00	-15.87	1.00 H	0	32.35	25.78
9	15570.00	45.28 AV	54.00	-8.72	1.00 H	0	19.50	25.78

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	5145.00	53.52 PK	74.00	-20.48	1.00 V	125	41.61	11.91
2	5145.00	41.24 AV	54.00	-12.76	1.00 V	125	29.33	11.91
3	5150.00	55.41 PK	74.00	-18.59	1.00 V	125	43.48	11.93
4	5150.00	41.73 AV	54.00	-12.27	1.00 V	125	29.80	11.93
5	*5190.00	99.03 PK			1.00 V	125	87.06	11.97
6	*5190.00	88.48 AV			1.00 V	125	76.51	11.97
7	#10380.00	54.02 PK	68.20	-14.18	1.00 V	0	32.97	21.05
8	15570.00	58.26 PK	74.00	-15.74	1.00 V	0	32.48	25.78
9	15570.00	45.68 AV	54.00	-8.32	1.00 V	0	19.90	25.78

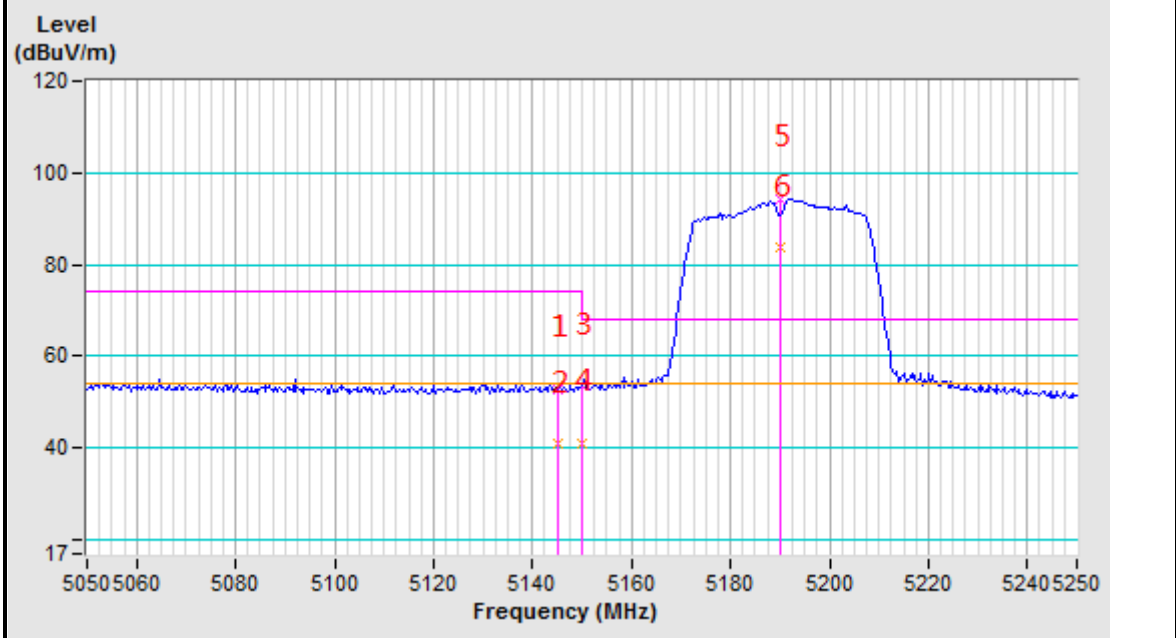
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

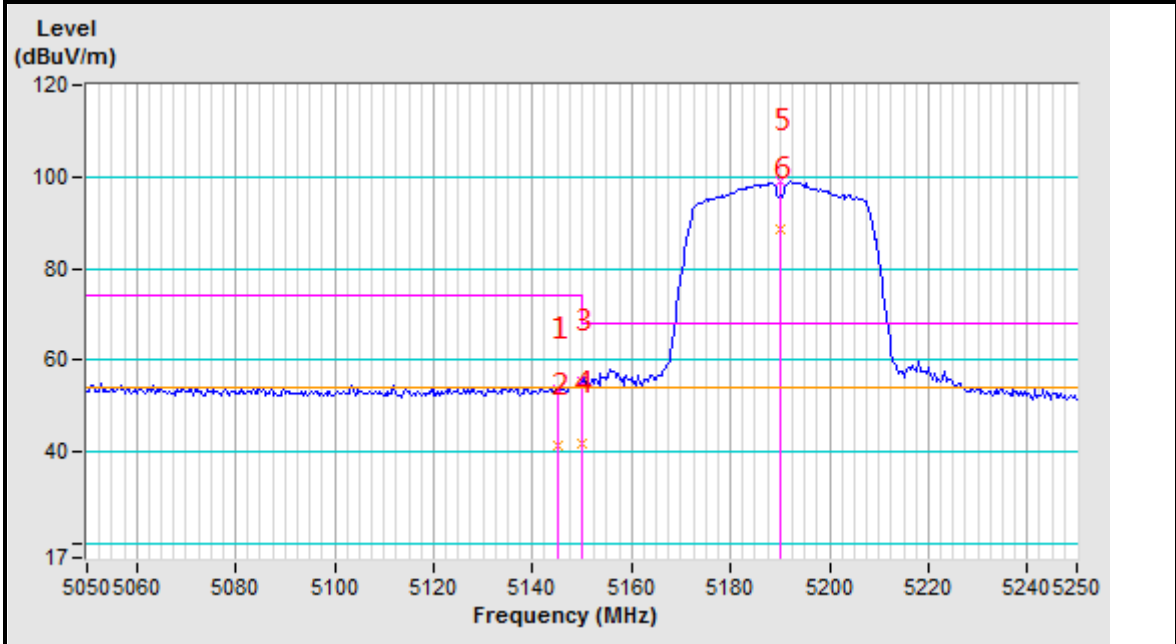


### Band edge Plot

#### 5190MHz Horizontal



#### 5190MHz Vertical





<b>CHANNEL</b>	TX Channel 46	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	5145.00	53.00 PK	74.00	-21.00	1.00 H	123	41.09	11.91
2	5145.00	41.89 AV	54.00	-12.11	1.00 H	123	29.98	11.91
3	5150.00	54.38 PK	74.00	-19.62	1.00 H	123	42.45	11.93
4	5150.00	42.64 AV	54.00	-11.36	1.00 H	123	30.71	11.93
5	*5230.00	94.02 PK			1.00 H	123	82.01	12.01
6	*5230.00	83.11 AV			1.00 H	123	71.10	12.01
7	#10460.00	53.54 PK	68.20	-14.66	1.00 H	0	32.40	21.14
8	15690.00	57.92 PK	74.00	-16.08	1.00 H	0	31.89	26.03
9	15690.00	45.88 AV	54.00	-8.12	1.00 H	0	19.85	26.03

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	5145.00	53.12 PK	74.00	-20.88	1.00 V	123	41.21	11.91
2	5145.00	41.96 AV	54.00	-12.04	1.00 V	123	30.05	11.91
3	5150.00	54.11 PK	74.00	-19.89	1.00 V	123	42.18	11.93
4	5150.00	42.52 AV	54.00	-11.48	1.00 V	123	30.59	11.93
5	*5230.00	99.00 PK			1.00 V	123	86.99	12.01
6	*5230.00	88.52 AV			1.00 V	123	76.51	12.01
7	#10460.00	53.72 PK	68.20	-14.48	1.00 V	0	32.58	21.14
8	15690.00	58.10 PK	74.00	-15.90	1.00 V	0	32.07	26.03
9	15690.00	45.74 AV	54.00	-8.26	1.00 V	0	19.71	26.03

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.





**802.11ac (80MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	5145.00	53.31 PK	74.00	-20.69	1.00 H	125	41.40	11.91
2	5145.00	41.10 AV	54.00	-12.90	1.00 H	125	29.19	11.91
3	5150.00	53.84 PK	74.00	-20.16	1.00 H	125	41.91	11.93
4	5150.00	43.11 AV	54.00	-10.89	1.00 H	125	31.18	11.93
5	*5210.00	95.89 PK			1.00 H	125	83.91	11.98
6	*5210.00	85.46 AV			1.00 H	125	73.48	11.98
7	#10420.00	52.65 PK	68.20	-15.55	1.00 H	0	31.55	21.10
8	15630.00	57.43 PK	74.00	-16.57	1.00 H	0	31.52	25.91
9	15630.00	45.77 AV	54.00	-8.23	1.00 H	0	19.86	25.91

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	5145.00	55.28 PK	74.00	-18.72	1.00 V	125	43.37	11.91
2	5145.00	42.79 AV	54.00	-11.21	1.00 V	125	30.88	11.91
3	5150.00	57.43 PK	74.00	-16.57	1.00 V	125	45.50	11.93
4	5150.00	43.75 AV	54.00	-10.25	1.00 V	125	31.82	11.93
5	*5210.00	98.25 PK			1.00 V	125	86.27	11.98
6	*5210.00	86.95 AV			1.00 V	125	74.97	11.98
7	#10420.00	51.24 PK	68.20	-16.96	1.00 V	0	30.14	21.10
8	15630.00	57.11 PK	74.00	-16.89	1.00 V	0	31.20	25.91
9	15630.00	45.68 AV	54.00	-8.32	1.00 V	0	19.77	25.91

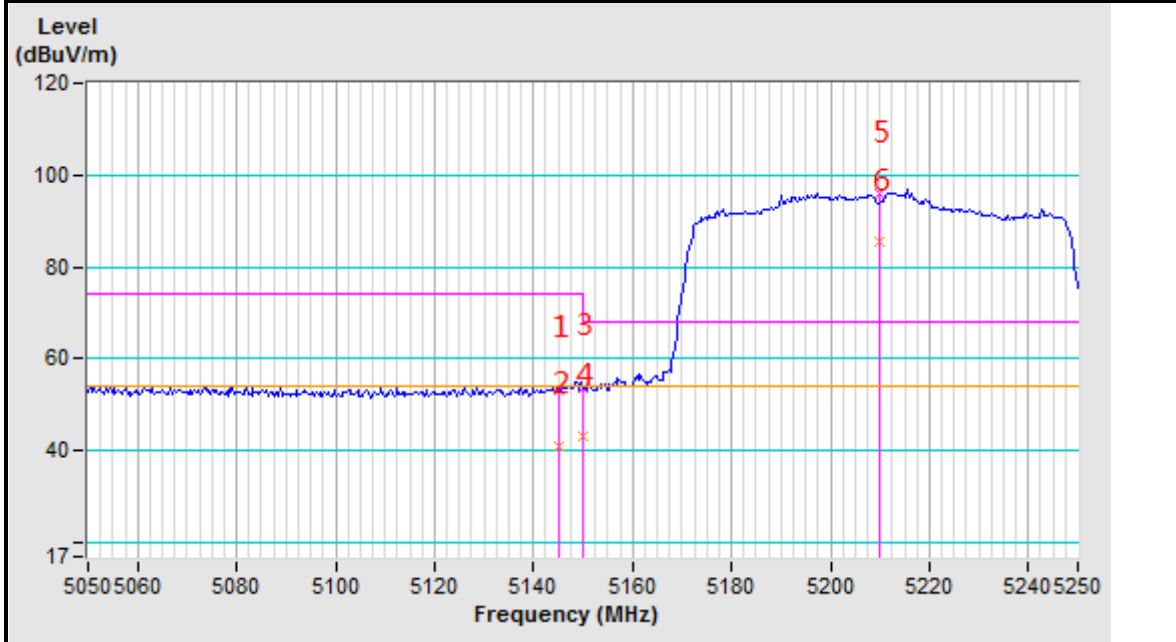
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

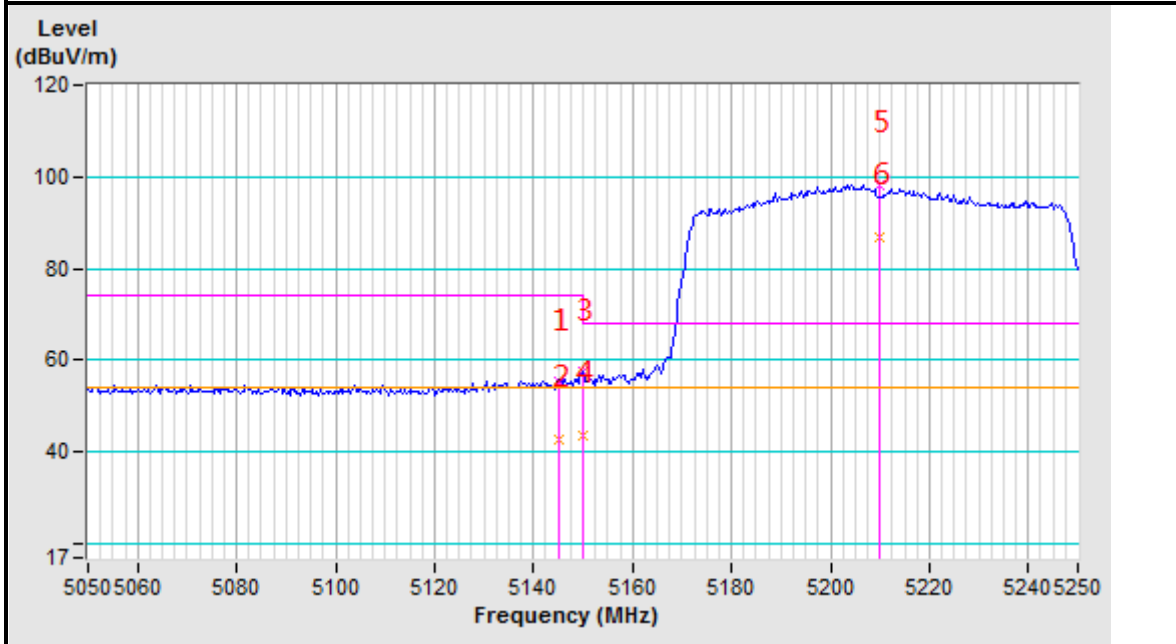


### Band edge Plot

#### 5210MHz Horizontal



#### 5210MHz Vertical





Band 2 (5250-5350MHz):802.11a

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	5145.00	53.66 PK	74.00	-20.34	1.00 H	125	41.75	11.91
2	5145.00	42.98 AV	54.00	-11.02	1.00 H	125	31.07	11.91
3	5150.00	54.21 PK	74.00	-19.79	1.00 H	125	42.28	11.93
4	5150.00	43.66 AV	54.00	-10.34	1.00 H	125	31.73	11.93
5	*5260.00	102.10 PK			1.00 H	125	90.07	12.03
6	*5260.00	92.00 AV			1.00 H	125	79.97	12.03
7	5350.00	54.17 PK	74.00	-19.83	1.00 H	125	42.05	12.12
8	5350.00	43.25 AV	54.00	-10.75	1.00 H	125	31.13	12.12
9	5355.00	54.28 PK	74.00	-19.72	1.00 H	125	42.14	12.14
10	5355.00	42.61 AV	54.00	-11.39	1.00 H	125	30.47	12.14
11	#10520.00	54.06 PK	68.20	-14.14	1.00 H	0	32.84	21.22
12	15780.00	57.91 PK	74.00	-16.09	1.00 H	0	31.68	26.23
13	15780.00	45.33 AV	54.00	-8.67	1.00 H	0	19.10	26.23

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	5145.00	53.24 PK	74.00	-20.76	1.00 V	125	41.33	11.91
2	5145.00	42.33 AV	54.00	-11.67	1.00 V	125	30.42	11.91
3	5150.00	54.30 PK	74.00	-19.70	1.00 V	125	42.37	11.93
4	5150.00	43.52 AV	54.00	-10.48	1.00 V	125	31.59	11.93
5	*5260.00	111.02 PK			1.00 V	125	98.99	12.03
6	*5260.00	100.18 AV			1.00 V	125	88.15	12.03
7	5350.00	54.26 PK	74.00	-19.74	1.00 V	125	42.14	12.12
8	5350.00	43.55 AV	54.00	-10.45	1.00 V	125	31.43	12.12
9	5355.00	54.62 PK	74.00	-19.38	1.00 V	125	42.48	12.14
10	5355.00	42.11 AV	54.00	-11.89	1.00 V	125	29.97	12.14
11	#10520.00	54.35 PK	68.20	-13.85	1.00 V	0	33.13	21.22
12	15780.00	57.11 PK	74.00	-16.89	1.00 V	0	30.88	26.23
13	15780.00	45.26 AV	54.00	-8.74	1.00 V	0	19.03	26.23

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.



<b>CHANNEL</b>	TX Channel 60	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	102.05 PK			1.00 H	123	89.98	12.07
2	*5300.00	92.33 AV			1.00 H	123	80.26	12.07
3	5350.00	55.51 PK	74.00	-18.49	1.00 H	123	43.39	12.12
4	5350.00	43.62 AV	54.00	-10.38	1.00 H	123	31.50	12.12
5	5355.00	54.88 PK	74.00	-19.12	1.00 H	123	42.74	12.14
6	5355.00	42.36 AV	54.00	-11.64	1.00 H	123	30.22	12.14
7	10600.00	54.45 PK	74.00	-19.55	1.00 H	0	33.06	21.39
8	10600.00	43.68 AV	54.00	-10.32	1.00 H	0	22.29	21.39
9	15900.00	58.91 PK	74.00	-15.09	1.00 H	0	32.43	26.48
10	15900.00	45.45 AV	54.00	-8.55	1.00 H	0	18.97	26.48

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	111.00 PK			1.00 V	123	98.93	12.07
2	*5300.00	100.28 AV			1.00 V	123	88.21	12.07
3	5350.00	55.24 PK	74.00	-18.76	1.00 V	123	43.12	12.12
4	5350.00	43.58 AV	54.00	-10.42	1.00 V	123	31.46	12.12
5	5355.00	54.36 PK	74.00	-19.64	1.00 V	123	42.22	12.14
6	5355.00	42.96 AV	54.00	-11.04	1.00 V	123	30.82	12.14
7	10600.00	54.25 PK	74.00	-19.75	1.00 V	0	32.86	21.39
8	10600.00	43.12 AV	54.00	-10.88	1.00 V	0	21.73	21.39
9	15900.00	58.11 PK	74.00	-15.89	1.00 V	0	31.63	26.48
10	15900.00	45.35 AV	54.00	-8.65	1.00 V	0	18.87	26.48

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.



<b>CHANNEL</b>	TX Channel 64	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	102.63 PK			1.00 H	155	90.53	12.10
2	*5320.00	92.43 AV			1.00 H	155	80.33	12.10
3	5350.00	55.87 PK	74.00	-18.13	1.00 H	155	43.75	12.12
4	5350.00	43.72 AV	54.00	-10.28	1.00 H	155	31.60	12.12
5	5355.00	55.31 PK	74.00	-18.69	1.00 H	155	43.17	12.14
6	5355.00	43.34 AV	54.00	-10.66	1.00 H	155	31.20	12.14
7	10640.00	53.17 PK	74.00	-20.83	1.00 H	0	31.70	21.47
8	10640.00	41.62 AV	54.00	-12.38	1.00 H	0	20.15	21.47
9	15960.00	58.99 PK	74.00	-15.01	1.00 H	0	32.38	26.61
10	15960.00	45.21 AV	54.00	-8.79	1.00 H	0	18.60	26.61

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	111.14 PK			1.00 V	125	99.04	12.10
2	*5320.00	100.78 AV			1.00 V	125	88.68	12.10
3	5350.00	58.18 PK	74.00	-15.82	1.00 V	125	46.06	12.12
4	5350.00	46.38 AV	54.00	-7.62	1.00 V	125	34.26	12.12
5	5355.00	58.10 PK	74.00	-15.90	1.00 V	125	45.96	12.14
6	5355.00	45.63 AV	54.00	-8.37	1.00 V	125	33.49	12.14
7	10640.00	53.89 PK	74.00	-20.11	1.00 V	0	32.42	21.47
8	10640.00	45.53 AV	54.00	-8.47	1.00 V	0	24.06	21.47
9	15960.00	58.32 PK	74.00	-15.68	1.00 V	0	31.71	26.61
10	15960.00	45.67 AV	54.00	-8.33	1.00 V	0	19.06	26.61

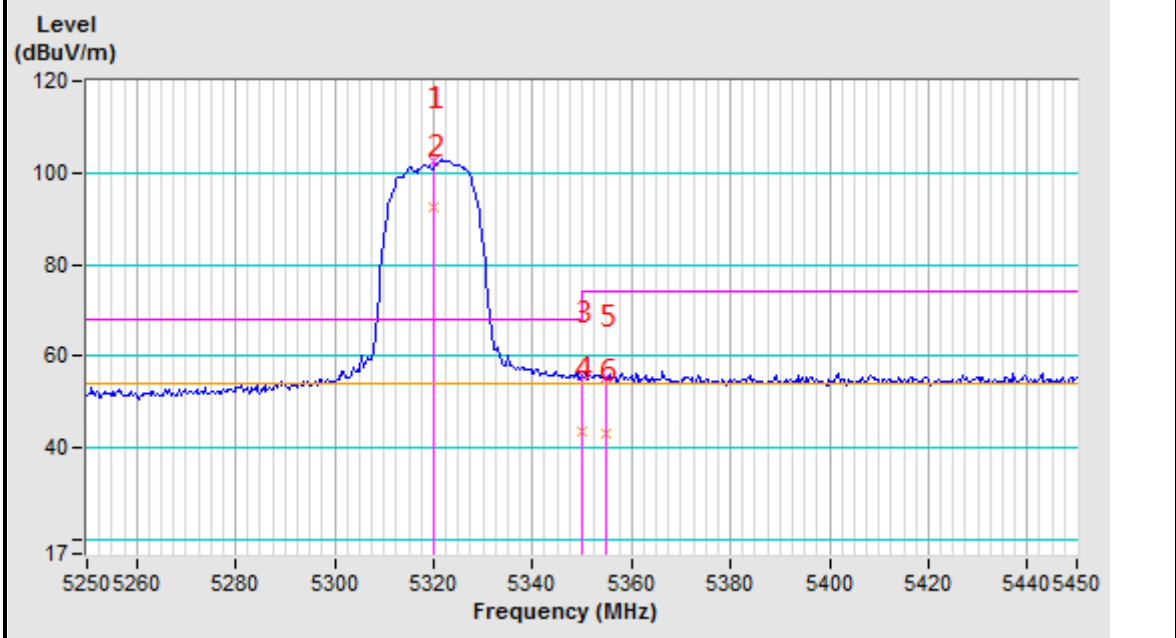
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.

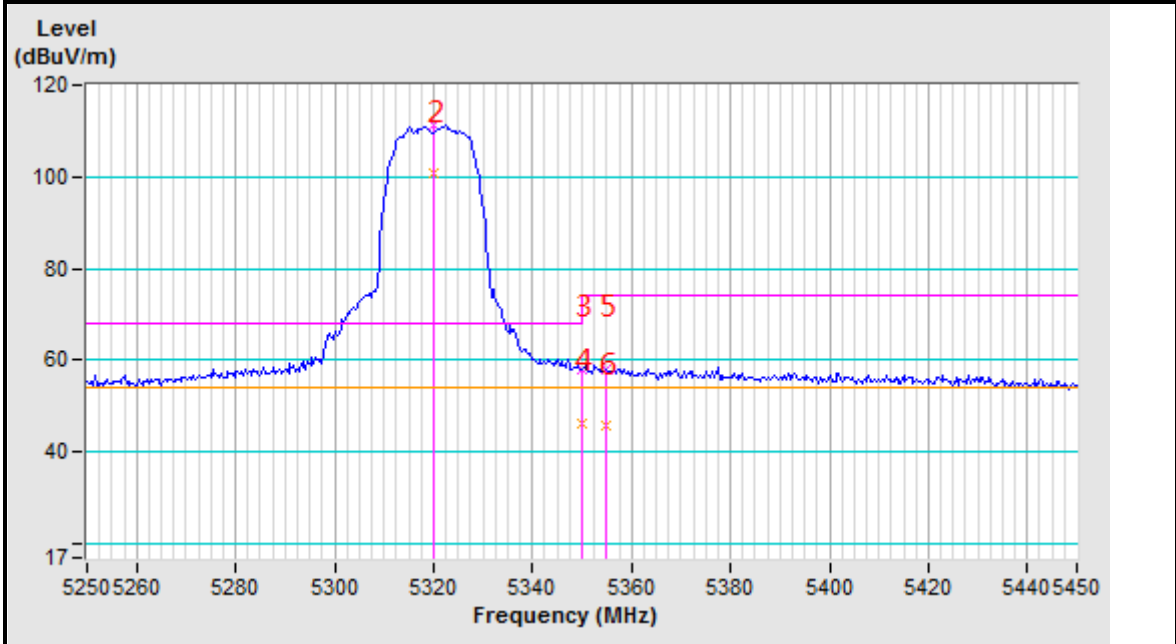


### Band edge Plot

#### 5320MHz Horizontal



#### 5320MHz Vertical





**802.11n (20MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	5145.00	55.26 PK	74.00	-18.74	1.00 H	155	43.35	11.91
2	5145.00	42.35 AV	54.00	-11.65	1.00 H	155	30.44	11.91
3	5150.00	55.20 PK	74.00	-18.80	1.00 H	155	43.27	11.93
4	5150.00	42.59 AV	54.00	-11.41	1.00 H	155	30.66	11.93
5	*5260.00	99.32 PK			1.00 H	155	87.29	12.03
6	*5260.00	88.95 AV			1.00 H	155	76.92	12.03
7	5350.00	56.32 PK	74.00	-17.68	1.00 H	155	44.20	12.12
8	5350.00	43.11 AV	54.00	-10.89	1.00 H	155	30.99	12.12
9	5355.00	55.28 PK	74.00	-18.72	1.00 H	155	43.14	12.14
10	5355.00	42.57 AV	54.00	-11.43	1.00 H	155	30.43	12.14
11	#10520.00	54.17 PK	68.20	-14.03	1.00 H	0	32.95	21.22
12	15780.00	58.45 PK	74.00	-15.55	1.00 H	0	32.22	26.23
13	15780.00	45.26 AV	54.00	-8.74	1.00 H	0	19.03	26.23

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	5145.00	55.10 PK	74.00	-18.90	1.00 V	155	43.19	11.91
2	5145.00	41.95 AV	54.00	-12.05	1.00 V	155	30.04	11.91
3	5150.00	55.14 PK	74.00	-18.86	1.00 V	155	43.21	11.93
4	5150.00	42.10 AV	54.00	-11.90	1.00 V	155	30.17	11.93
5	*5260.00	104.73 PK			1.00 V	155	92.70	12.03
6	*5260.00	94.00 AV			1.00 V	155	81.97	12.03
7	5350.00	56.87 PK	74.00	-17.13	1.00 V	155	44.75	12.12
8	5350.00	43.19 AV	54.00	-10.81	1.00 V	155	31.07	12.12
9	5355.00	55.81 PK	74.00	-18.19	1.00 V	155	43.67	12.14
10	5355.00	42.65 AV	54.00	-11.35	1.00 V	155	30.51	12.14
11	#10520.00	53.97 PK	68.20	-14.23	1.00 V	0	32.75	21.22
12	15780.00	57.92 PK	74.00	-16.08	1.00 V	0	31.69	26.23
13	15780.00	45.28 AV	54.00	-8.72	1.00 V	0	19.05	26.23

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.



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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	99.14 PK			1.00 H	164	87.07	12.07
2	*5300.00	88.14 AV			1.00 H	164	76.07	12.07
3	5350.00	54.25 PK	74.00	-19.75	1.00 H	164	42.13	12.12
4	5350.00	42.21 AV	54.00	-11.79	1.00 H	164	30.09	12.12
5	5355.00	53.84 PK	74.00	-20.16	1.00 H	164	41.70	12.14
6	5355.00	41.65 AV	54.00	-12.35	1.00 H	164	29.51	12.14
7	10600.00	53.89 PK	74.00	-20.11	1.00 H	0	32.50	21.39
8	10600.00	42.15 AV	54.00	-11.85	1.00 H	0	20.76	21.39
9	15900.00	58.21 PK	74.00	-15.79	1.00 H	0	31.73	26.48
10	15900.00	46.33 AV	54.00	-7.67	1.00 H	0	19.85	26.48

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	104.58 PK			1.00 V	164	92.51	12.07
2	*5300.00	93.96 AV			1.00 V	164	81.89	12.07
3	5350.00	55.38 PK	74.00	-18.62	1.00 V	164	43.26	12.12
4	5350.00	43.54 AV	54.00	-10.46	1.00 V	164	31.42	12.12
5	5355.00	54.11 PK	74.00	-19.89	1.00 V	164	41.97	12.14
6	5355.00	42.38 AV	54.00	-11.62	1.00 V	164	30.24	12.14
7	10600.00	53.10 PK	74.00	-20.90	1.00 V	0	31.71	21.39
8	10600.00	42.34 AV	54.00	-11.66	1.00 V	0	20.95	21.39
9	15900.00	58.21 PK	74.00	-15.79	1.00 V	0	31.73	26.48
10	15900.00	46.33 AV	54.00	-7.67	1.00 V	0	19.85	26.48

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.





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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	98.66 PK			1.00 H	125	86.56	12.10
2	*5320.00	88.08 AV			1.00 H	125	75.98	12.10
3	5350.00	54.60 PK	74.00	-19.40	1.00 H	125	42.48	12.12
4	5350.00	42.53 AV	54.00	-11.47	1.00 H	125	30.41	12.12
5	5355.00	54.55 PK	74.00	-19.45	1.00 H	125	42.41	12.14
6	5355.00	42.41 AV	54.00	-11.59	1.00 H	125	30.27	12.14
7	10640.00	54.21 PK	74.00	-19.79	1.00 H	0	32.74	21.47
8	10640.00	42.38 AV	54.00	-11.62	1.00 H	0	20.91	21.47
9	15960.00	57.95 PK	74.00	-16.05	1.00 H	0	31.34	26.61
10	15960.00	45.12 AV	54.00	-8.88	1.00 H	0	18.51	26.61

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	105.38 PK			1.00 V	125	93.28	12.10
2	*5320.00	94.26 AV			1.00 V	125	82.16	12.10
3	5350.00	55.15 PK	74.00	-18.85	1.00 V	125	43.03	12.12
4	5350.00	43.12 AV	54.00	-10.88	1.00 V	125	31.00	12.12
5	5355.00	55.24 PK	74.00	-18.76	1.00 V	125	43.10	12.14
6	5355.00	42.83 AV	54.00	-11.17	1.00 V	125	30.69	12.14
7	10640.00	54.81 PK	74.00	-19.19	1.00 V	0	33.34	21.47
8	10640.00	43.00 AV	54.00	-11.00	1.00 V	0	21.53	21.47
9	15960.00	58.27 PK	74.00	-15.73	1.00 V	0	31.66	26.61
10	15960.00	46.10 AV	54.00	-7.90	1.00 V	0	19.49	26.61

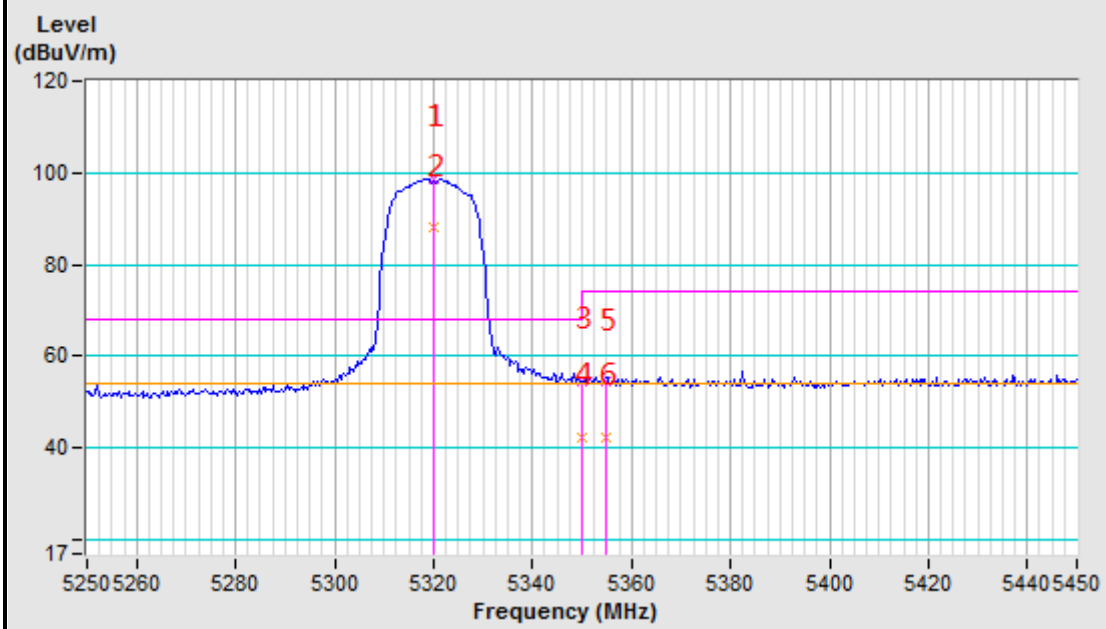
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.

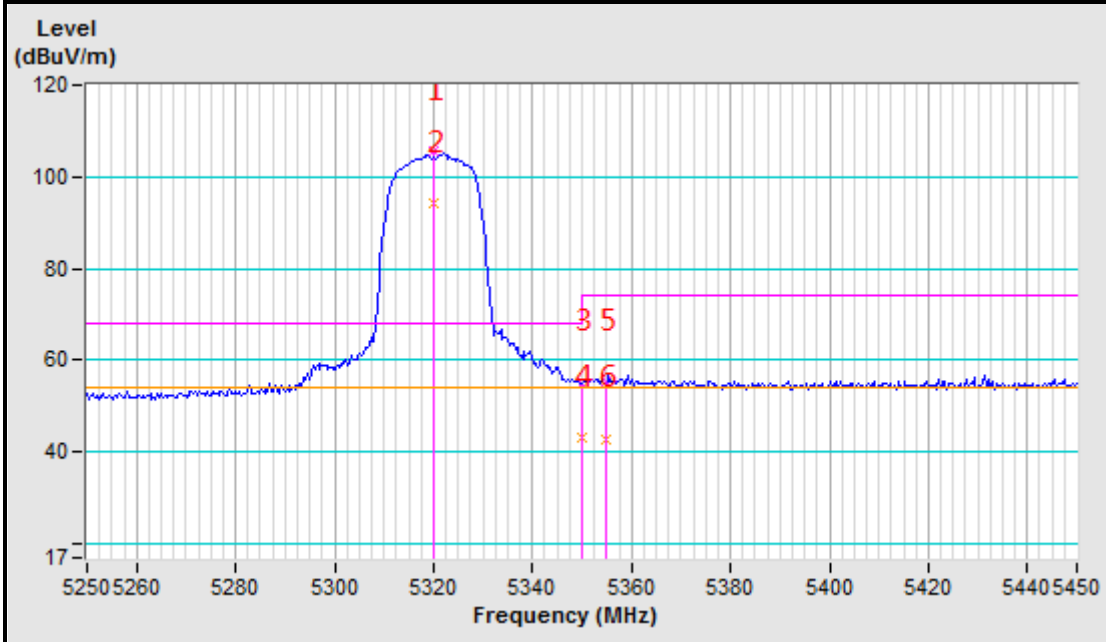


### Band edge Plot

#### 5320MHz Horizontal



#### 5320MHz Vertical





802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	95.76 PK			1.00 H	125	83.72	12.04
2	*5270.00	85.77 AV			1.00 H	125	73.73	12.04
3	5350.00	55.84 PK	74.00	-18.16	1.00 H	125	43.72	12.12
4	5350.00	45.73 AV	54.00	-8.27	1.00 H	125	33.61	12.12
5	5355.00	54.81 PK	74.00	-19.19	1.00 H	125	42.67	12.14
6	5355.00	42.93 AV	54.00	-11.07	1.00 H	125	30.79	12.14
7	#10540.00	54.82 PK	68.20	-13.38	1.00 H	0	33.56	21.26
8	15810.00	57.93 PK	74.00	-16.07	1.00 H	0	31.63	26.30
9	15810.00	46.31 AV	54.00	-7.69	1.00 H	0	20.01	26.30

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	*5270.00	101.32 PK			1.00 V	125	89.28	12.04
2	*5270.00	90.45 AV			1.00 V	125	78.41	12.04
3	5350.00	55.79 PK	74.00	-18.21	1.00 V	125	43.67	12.12
4	5350.00	44.21 AV	54.00	-9.79	1.00 V	125	32.09	12.12
5	5355.00	54.11 PK	74.00	-19.89	1.00 V	125	41.97	12.14
6	5355.00	42.88 AV	54.00	-11.12	1.00 V	125	30.74	12.14
7	#10540.00	54.47 PK	68.20	-13.73	1.00 V	0	33.21	21.26
8	15810.00	57.15 PK	74.00	-16.85	1.00 V	0	30.85	26.30
9	15810.00	46.81 AV	54.00	-7.19	1.00 V	0	20.51	26.30

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	95.81 PK			1.00 H	126	83.73	12.08
2	*5310.00	85.61 AV			1.00 H	126	73.53	12.08
3	5350.00	55.05 PK	74.00	-18.95	1.00 H	126	42.93	12.12
4	5350.00	42.91 AV	54.00	-11.09	1.00 H	126	30.79	12.12
5	5355.00	56.33 PK	74.00	-17.67	1.00 H	125	44.19	12.14
6	5355.00	42.44 AV	54.00	-11.56	1.00 H	125	30.30	12.14
7	10620.00	54.18 PK	74.00	-19.82	1.00 H	0	32.75	21.43
8	10620.00	43.15 AV	54.00	-10.85	1.00 H	0	21.72	21.43
9	15930.00	58.65 PK	74.00	-15.35	1.00 H	0	32.10	26.55
10	15930.00	45.29 AV	54.00	-8.71	1.00 H	0	18.74	26.55

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

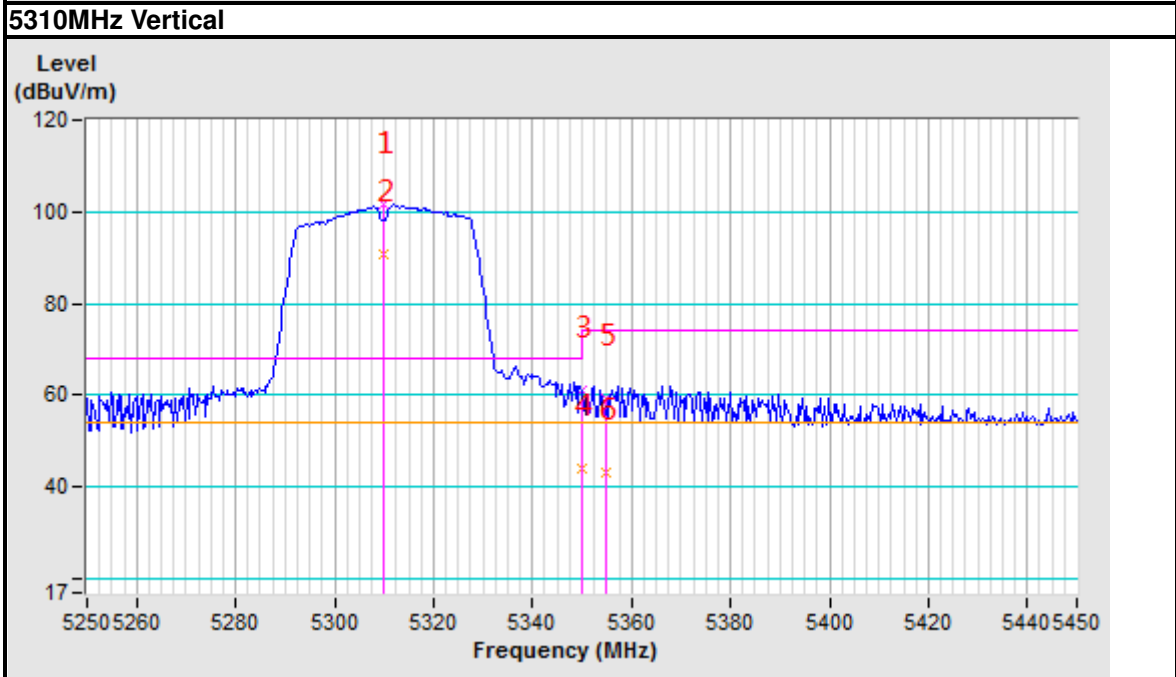
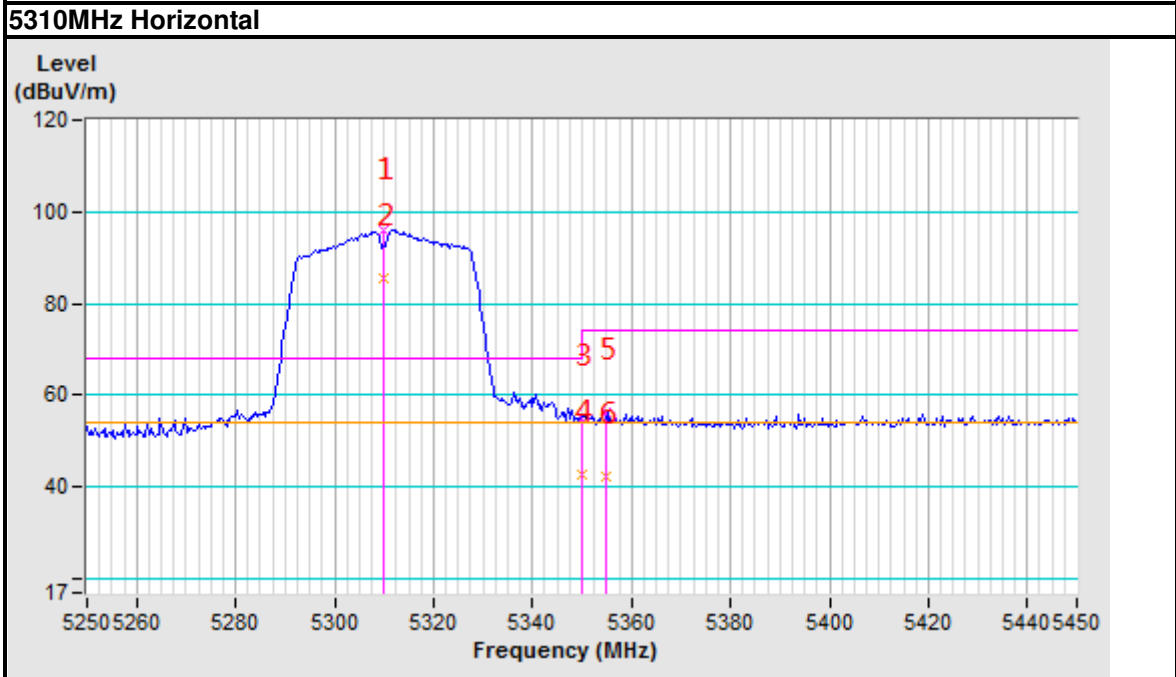
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	101.46 PK			1.00 V	125	89.38	12.08
2	*5310.00	90.87 AV			1.00 V	125	78.79	12.08
3	5350.00	61.21 PK	74.00	-12.79	1.00 V	125	49.09	12.12
4	5350.00	44.20 AV	54.00	-9.80	1.00 V	125	32.08	12.12
5	5355.00	59.54 PK	74.00	-14.46	1.00 V	125	47.40	12.14
6	5355.00	43.27 AV	54.00	-10.73	1.00 V	125	31.13	12.14
7	10620.00	54.00 PK	74.00	-20.00	1.00 V	0	32.57	21.43
8	10620.00	42.37 AV	54.00	-11.63	1.00 V	0	20.94	21.43
9	15930.00	58.71 PK	74.00	-15.29	1.00 V	0	32.16	26.55
10	15930.00	45.38 AV	54.00	-8.62	1.00 V	0	18.83	26.55

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.



### Band edge Plot





**802.11ac 80MHz**

<b>CHANNEL</b>	TX Channel 58	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	*5290.00	89.49 PK			1.00 H	122	77.42	12.07
2	*5290.00	78.97 AV			1.00 H	122	66.90	12.07
3	5350.00	55.20 PK	74.00	-18.80	1.00 H	122	43.08	12.12
4	5350.00	43.09 AV	54.00	-10.91	1.00 H	122	30.97	12.12
5	5355.00	54.36 PK	74.00	-19.64	1.00 H	122	42.22	12.14
6	5355.00	42.65 AV	54.00	-11.35	1.00 H	122	30.51	12.14
7	#10580.00	55.02 PK	68.20	-13.18	1.00 H	0	33.68	21.34
8	15870.00	58.97 PK	74.00	-15.03	1.00 H	0	32.55	26.42
9	15870.00	45.62 AV	54.00	-8.38	1.00 H	0	19.20	26.42

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

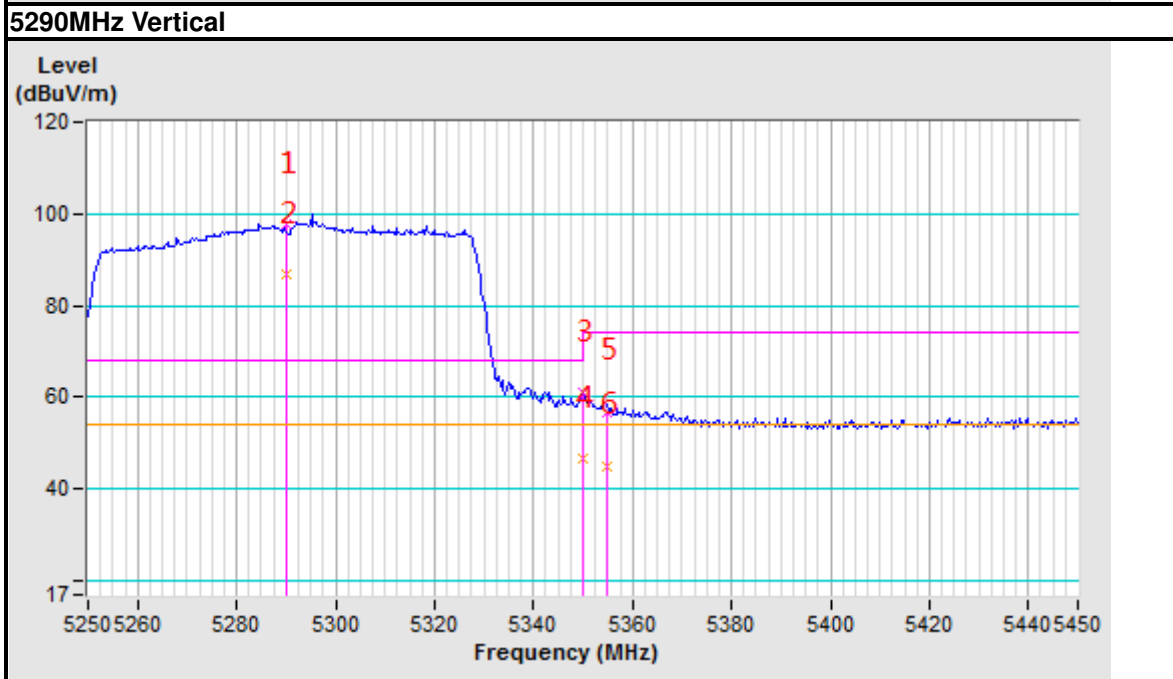
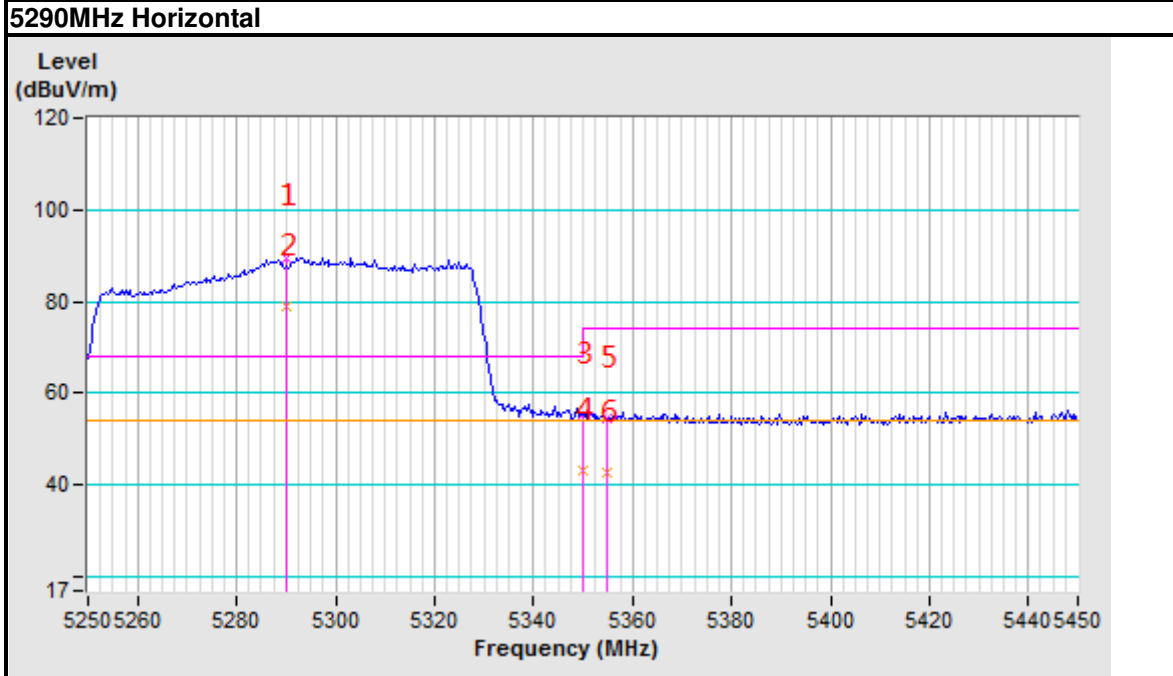
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	97.61 PK			1.00 V	145	85.54	12.07
2	*5290.00	86.80 AV			1.00 V	145	74.73	12.07
3	5350.00	61.09 PK	74.00	-12.91	1.00 V	145	48.97	12.12
4	5350.00	46.61 AV	54.00	-7.39	1.00 V	145	34.49	12.12
5	5355.00	56.90 PK	74.00	-17.10	1.00 V	145	44.76	12.14
6	5355.00	45.07 AV	54.00	-8.93	1.00 V	145	32.93	12.14
7	#10580.00	55.12 PK	68.20	-13.08	1.00 V	0	33.78	21.34
8	15870.00	58.74 PK	74.00	-15.26	1.00 V	0	32.32	26.42
9	15870.00	45.44 AV	54.00	-8.56	1.00 V	0	19.02	26.42

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





**Band 3 (5470-5725MHz):**

**ABOVE 1GHz DATA**

**802.11a**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5465.00	54.66 PK	68.20	-13.54	1.00 H	133	42.42	12.24
2	#5470.00	55.43 PK	68.20	-12.77	1.00 H	133	43.18	12.25
3	*5500.00	103.95 PK			1.00 H	133	91.67	12.28
4	*5500.00	92.87 AV			1.00 H	133	80.59	12.28
5	11000.00	54.39 PK	74.00	-19.61	1.00 H	0	32.19	22.20
6	11000.00	42.92 AV	54.00	-11.08	1.00 H	0	20.72	22.20
7	#16500.00	58.82 PK	68.20	-9.38	1.00 H	0	31.75	27.07
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5465.00	56.25 PK	68.20	-11.95	1.00 V	125	44.01	12.24
2	#5470.00	56.10 PK	68.20	-12.10	1.00 V	125	43.85	12.25
3	*5500.00	107.08 PK			1.00 V	125	94.80	12.28
4	*5500.00	96.70 AV			1.00 V	125	84.42	12.28
5	11000.00	54.85 PK	74.00	-19.15	1.00 V	0	32.65	22.20
6	11000.00	42.91 AV	54.00	-11.09	1.00 V	0	20.71	22.20
7	#16500.00	58.64 PK	68.20	-9.56	1.00 V	0	31.57	27.07

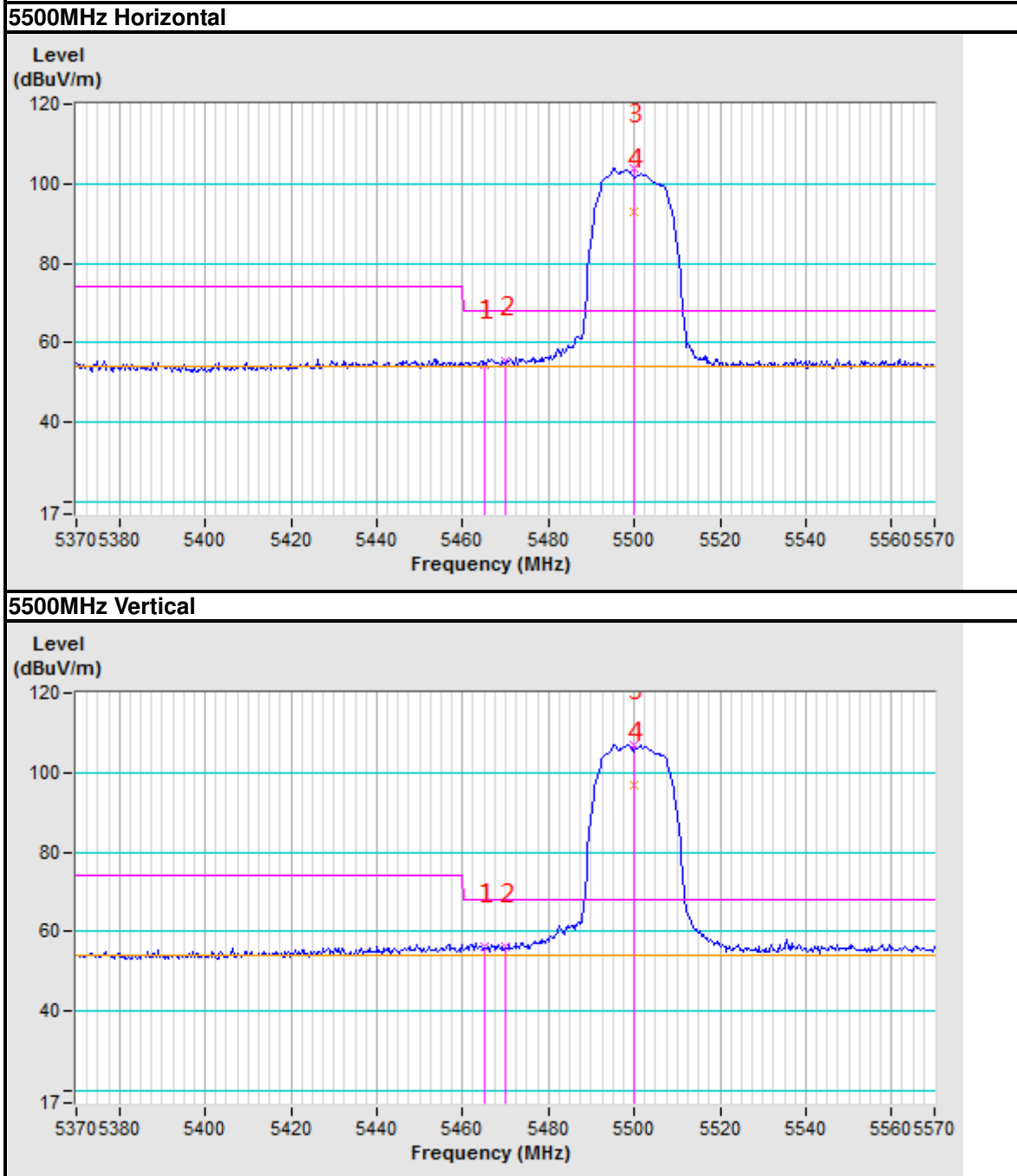
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.





### Band edge Plot





<b>CHANNEL</b>	TX Channel 112	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	56.31 PK	68.20	-11.89	1.00 H	149	44.06	12.25
2	*5580.00	102.31 PK			1.00 H	149	89.57	12.74
3	*5580.00	93.14 AV			1.00 H	149	80.40	12.74
4	11160.00	55.54 PK	74.00	-18.46	1.00 H	149	33.27	22.27
5	11160.00	42.88 AV	54.00	-11.12	1.00 H	149	20.61	22.27
6	#16740.00	58.71 PK	68.20	-9.49	1.00 H	149	30.97	27.74
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	56.34 PK	68.20	-11.86	1.00 V	149	44.09	12.25
2	*5580.00	107.48 PK			1.00 V	149	94.74	12.74
3	*5580.00	97.85 AV			1.00 V	149	85.11	12.74
4	11160.00	55.16 PK	74.00	-18.84	1.00 V	149	32.89	22.27
5	11160.00	42.65 AV	54.00	-11.35	1.00 V	149	20.38	22.27
6	#16740.00	58.22 PK	68.20	-9.98	1.00 V	149	30.48	27.74

**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).
3. The emission levels of other frequencies were less than 20dB margin 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	100.97 PK			1.00 H	114	87.53	13.44
2	*5700.00	90.82 AV			1.00 H	114	77.38	13.44
3	#5725.00	56.33 PK	68.20	-11.87	1.00 H	114	42.75	13.58
4	#5730.00	55.83 PK	68.20	-12.37	1.00 H	114	42.23	13.60
5	11400.00	54.31 PK	74.00	-19.69	1.00 H	0	31.93	22.38
6	11400.00	42.25 AV	54.00	-11.75	1.00 H	0	19.87	22.38
7	#17100.00	58.31 PK	68.20	-9.89	1.00 H	0	29.72	28.59

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

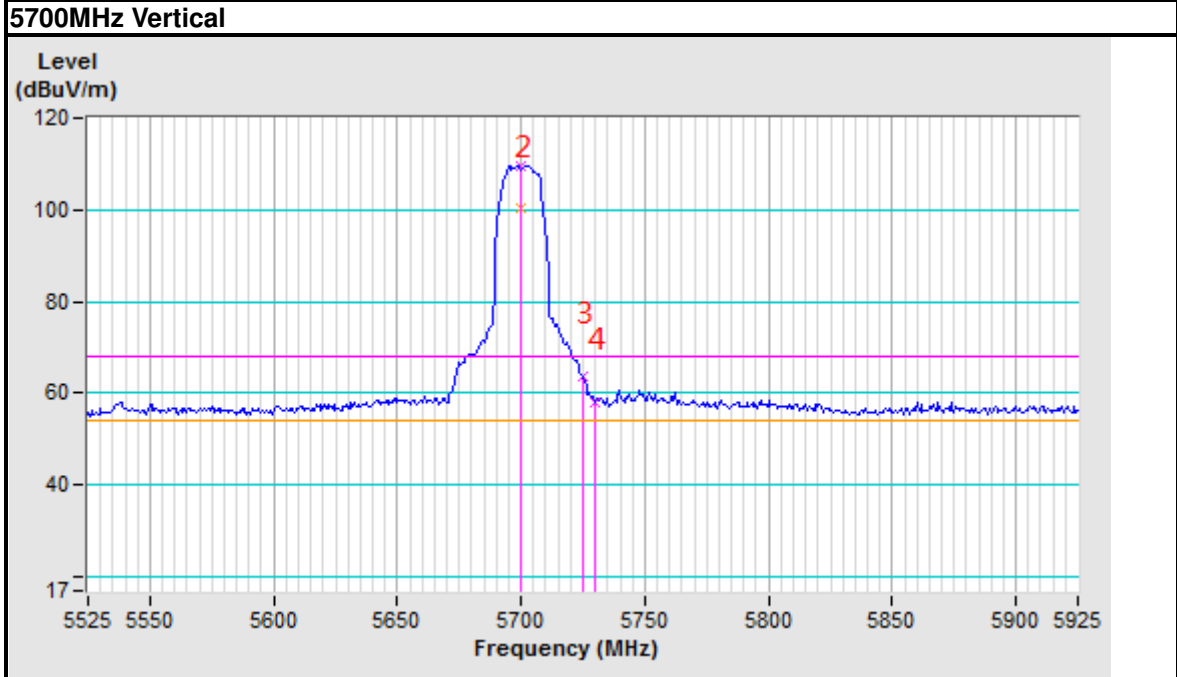
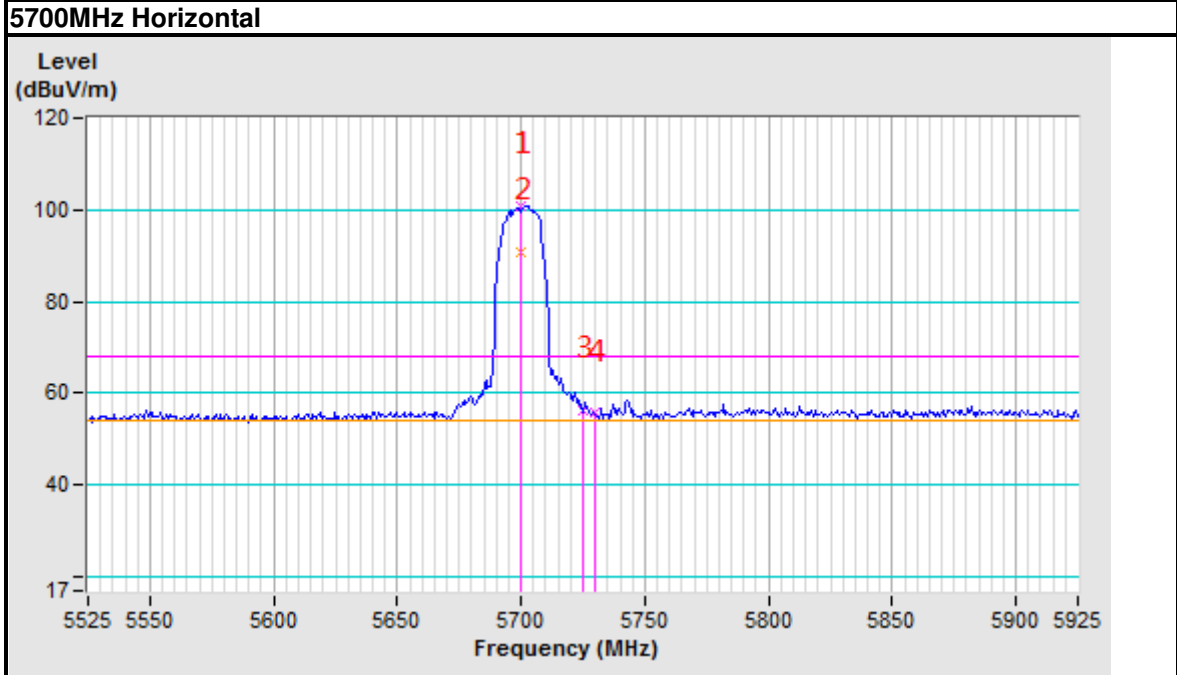
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.74 PK			1.00 V	145	96.30	13.44
2	*5700.00	100.25 AV			1.00 V	145	86.81	13.44
3	#5725.00	63.91 PK	68.20	-4.29	1.00 V	145	50.33	13.58
4	#5730.00	58.12 PK	68.20	-10.08	1.00 V	145	44.52	13.60
5	11400.00	53.89 PK	74.00	-20.11	1.00 V	0	31.51	22.38
6	11400.00	42.66 AV	54.00	-11.34	1.00 V	0	20.28	22.38
7	#17100.00	57.95 PK	68.20	-10.25	1.00 V	0	29.36	28.59

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





**802.11n (20MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5465.00	55.83 PK	68.20	-12.37	1.00 H	146	43.59	12.24
2	#5470.00	56.16 PK	68.20	-12.04	1.00 H	146	43.91	12.25
3	*5500.00	98.04 PK			1.00 H	146	85.76	12.28
4	*5500.00	88.73 AV			1.00 H	146	76.45	12.28
5	11000.00	54.61 PK	74.00	-19.39	1.00 H	0	32.41	22.20
6	11000.00	42.75 AV	54.00	-11.25	1.00 H	0	20.55	22.20
7	#16500.00	57.39 PK	68.20	-10.81	1.00 H	0	30.32	27.07

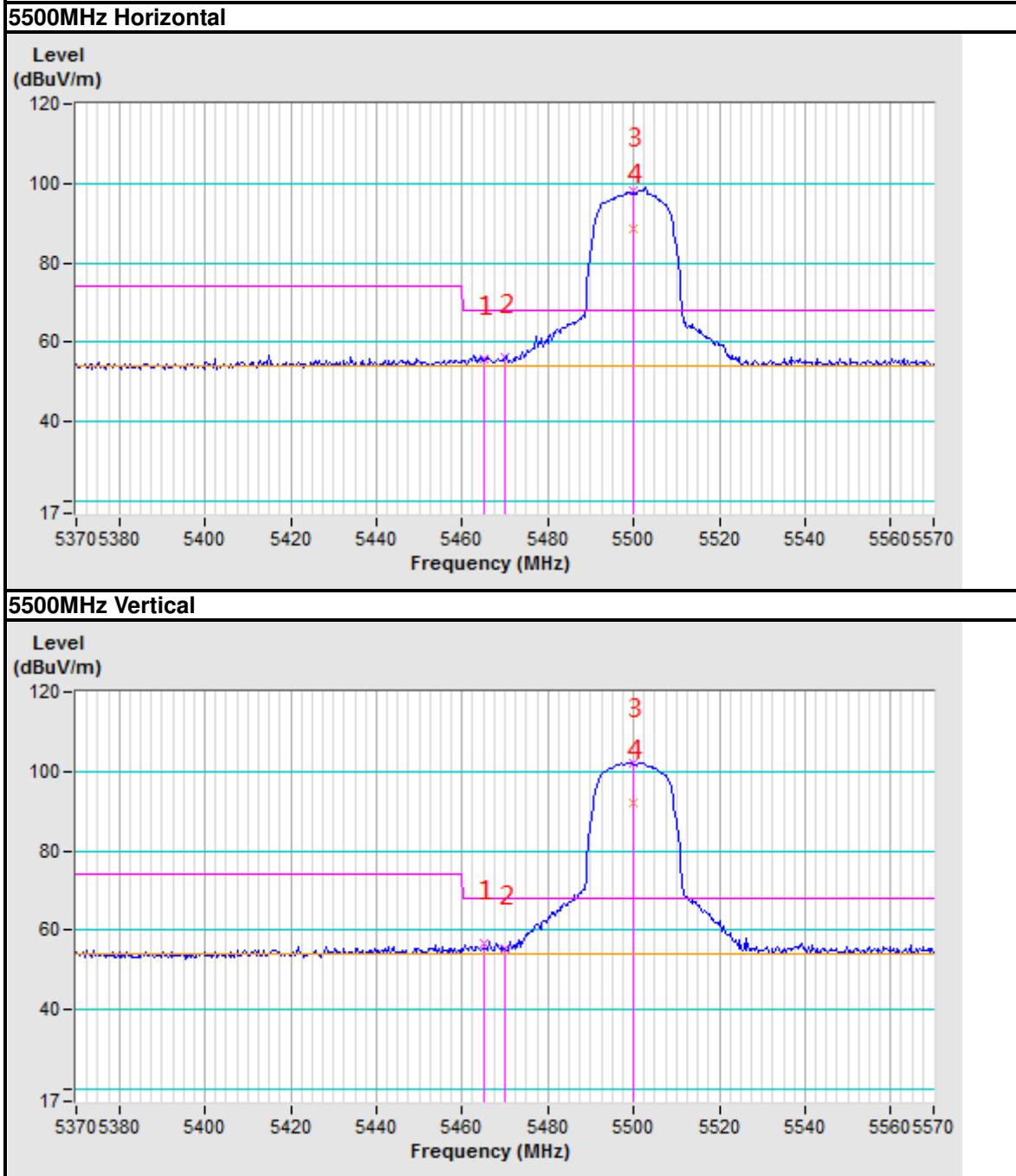
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5465.00	56.54 PK	68.20	-11.66	1.00 V	125	44.30	12.24
2	#5470.00	55.27 PK	68.20	-12.93	1.00 V	125	43.02	12.25
3	*5500.00	102.24 PK			1.00 V	125	89.96	12.28
4	*5500.00	91.95 AV			1.00 V	125	79.67	12.28
5	11000.00	54.58 PK	74.00	-19.42	1.00 V	0	32.38	22.20
6	11000.00	42.62 AV	54.00	-11.38	1.00 V	0	20.42	22.20
7	#16500.00	57.84 PK	68.20	-10.36	1.00 V	0	30.77	27.07

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.



### Band edge Plot





<b>CHANNEL</b>	TX Channel 112	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	55.25 PK	68.20	-12.95	1.00 H	125	43.00	12.25
2	*5580.00	98.12 PK			1.00 H	125	85.38	12.74
3	*5580.00	87.33 AV			1.00 H	125	74.59	12.74
4	11160.00	55.00 PK	74.00	-19.00	1.00 H	0	32.73	22.27
5	11160.00	42.36 AV	54.00	-11.64	1.00 H	0	20.09	22.27
6	#16740.00	58.25 PK	68.20	-9.95	1.00 H	0	30.51	27.74
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	56.32 PK	68.20	-11.88	1.00 V	125	44.07	12.25
2	*5580.00	102.55 PK			1.00 V	125	89.81	12.74
3	*5580.00	93.54 AV			1.00 V	125	80.80	12.74
4	11160.00	55.47 PK	74.00	-18.53	1.00 V	0	33.20	22.27
5	11160.00	43.48 AV	54.00	-10.52	1.00 V	0	21.21	22.27
6	#16740.00	58.62 PK	68.20	-9.58	1.00 V	0	30.88	27.74

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



<b>CHANNEL</b>	TX Channel 140	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	101.02 PK			1.00 H	145	87.58	13.44
2	*5700.00	91.33 AV			1.00 H	145	77.89	13.44
3	#5725.00	55.37 PK	68.20	-12.83	1.00 H	145	41.79	13.58
4	#5730.00	55.09 PK	68.20	-13.11	1.00 H	145	41.49	13.60
5	11400.00	53.99 PK	74.00	-20.01	1.00 H	0	31.61	22.38
6	11400.00	42.55 AV	54.00	-11.45	1.00 H	0	20.17	22.38
7	#17100.00	58.34 PK	68.20	-9.86	1.00 H	0	29.75	28.59

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.21 PK			1.00 V	147	92.77	13.44
2	*5700.00	95.33 AV			1.00 V	147	81.89	13.44
3	#5725.00	57.49 PK	68.20	-10.71	1.00 V	147	43.91	13.58
4	#5730.00	56.47 PK	68.20	-11.73	1.00 V	147	42.87	13.60
5	11400.00	54.32 PK	74.00	-19.68	1.00 V	0	31.94	22.38
6	11400.00	41.85 AV	54.00	-12.15	1.00 V	0	19.47	22.38
7	#17100.00	58.65 PK	68.20	-9.55	1.00 V	0	30.06	28.59

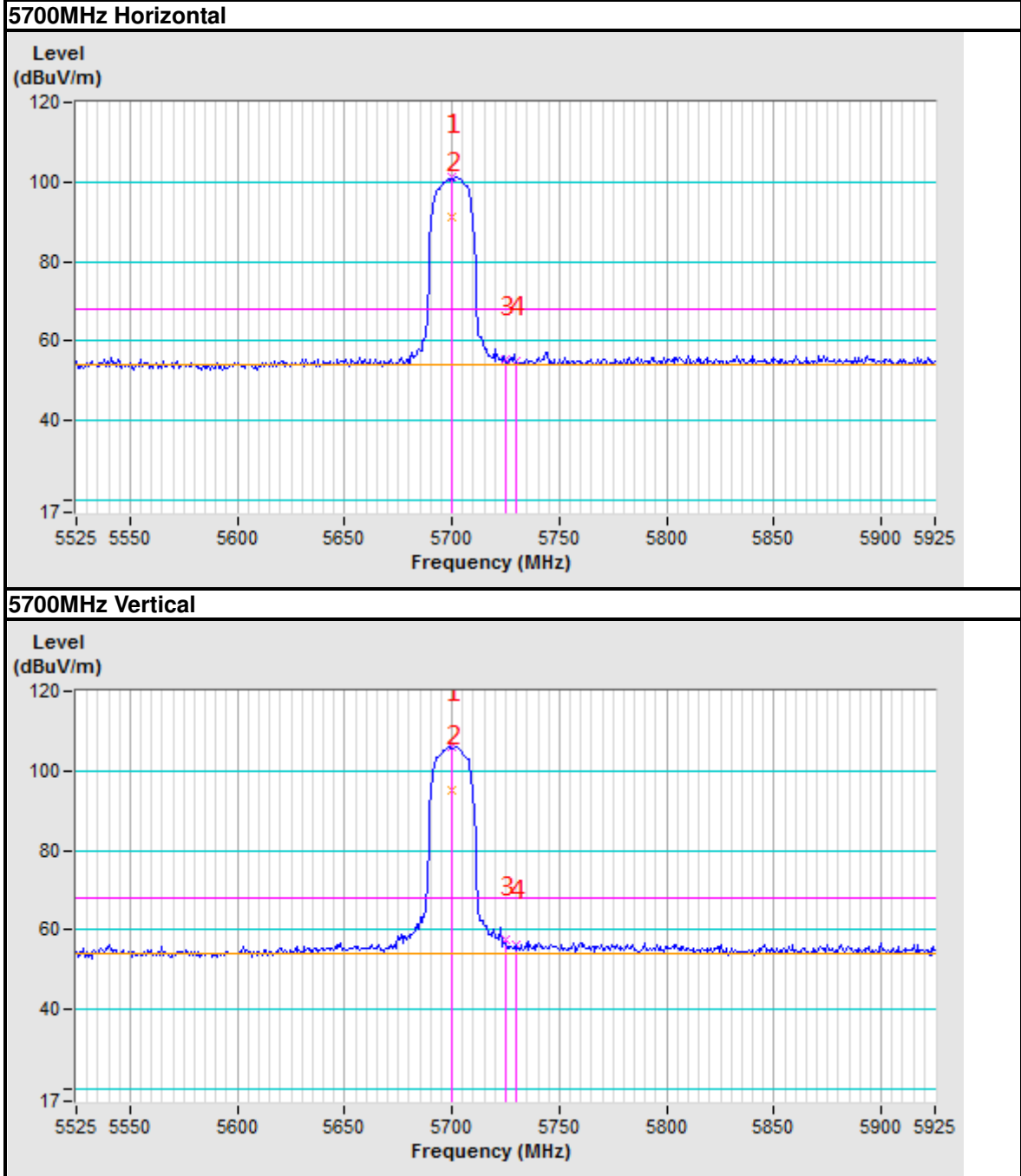
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.





### Band edge Plot





**802.11n (40MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	#5465.00	55.00 PK	68.20	-13.20	1.00 H	125	42.76	12.24
2	#5470.00	56.42 PK	68.20	-11.78	1.00 H	125	44.17	12.25
3	*5510.00	95.07 PK			1.00 H	125	82.74	12.33
4	*5510.00	84.87 AV			1.00 H	125	72.54	12.33
5	11020.00	55.75 PK	74.00	-18.25	1.00 H	0	33.54	22.21
6	11020.00	42.88 AV	54.00	-11.12	1.00 H	0	20.67	22.21
7	#16530.00	58.62 PK	68.20	-9.58	1.00 H	0	31.47	27.15

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	#5465.00	55.42 PK	68.20	-12.78	1.00 V	145	43.18	12.24
2	#5470.00	58.65 PK	68.20	-9.55	1.00 V	145	46.40	12.25
3	*5510.00	99.15 PK			1.00 V	145	86.82	12.33
4	*5510.00	89.25 AV			1.00 V	145	76.92	12.33
5	11020.00	55.28 PK	74.00	-18.72	1.00 V	0	33.07	22.21
6	11020.00	42.34 AV	54.00	-11.66	1.00 V	0	20.13	22.21
7	#16530.00	58.47 PK	68.20	-9.73	1.00 V	0	31.32	27.15

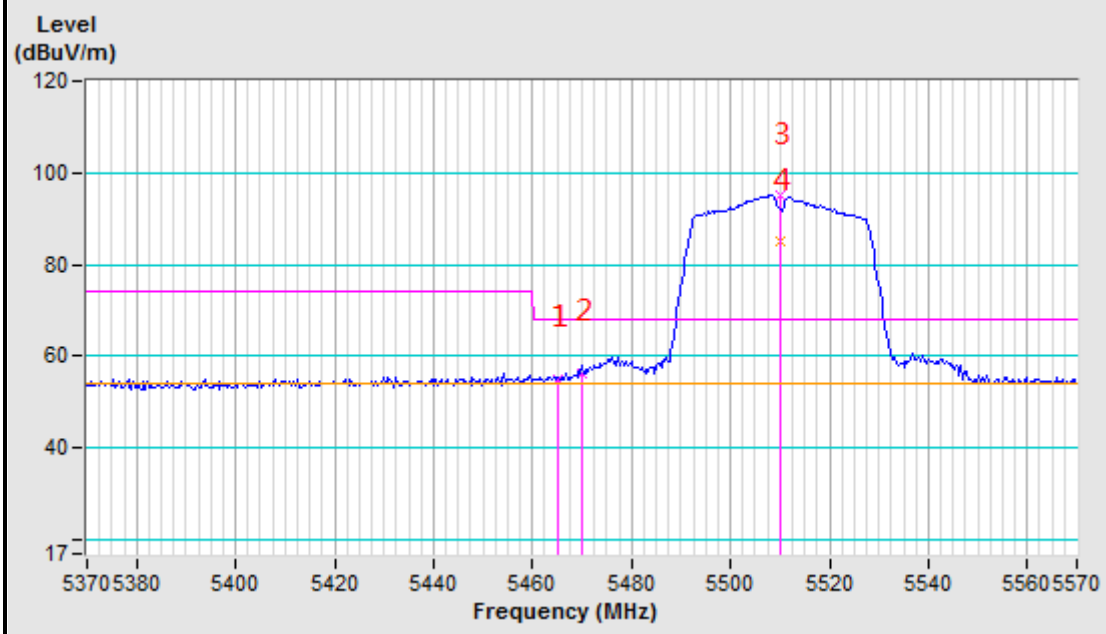
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

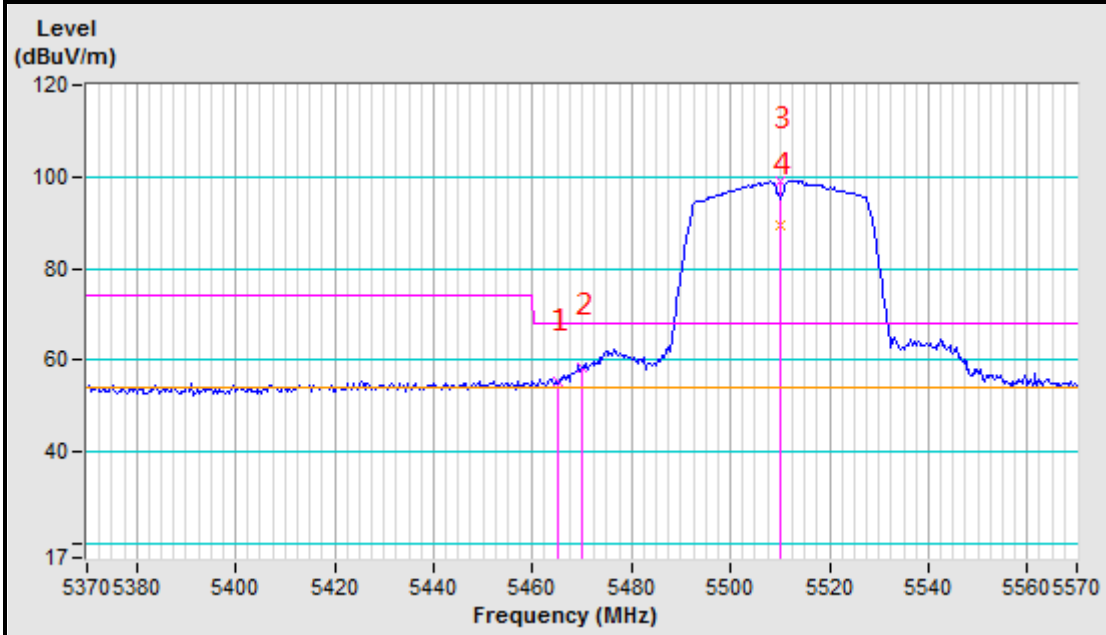


### Band edge Plot

#### 5510MHz Horizontal



#### 5510MHz Vertical





<b>CHANNEL</b>	TX Channel 110	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	55.35 PK	68.20	-12.85	1.00 H	125	43.10	12.25
2	*5550.00	98.10 PK			1.00 H	125	85.54	12.56
3	*5550.00	89.25 AV			1.00 H	125	76.69	12.56
4	11100.00	53.69 PK	74.00	-20.31	1.00 H	0	31.45	22.24
5	11100.00	43.00 AV	54.00	-11.00	1.00 H	0	20.76	22.24
6	#16650.00	58.11 PK	68.20	-10.09	1.00 H	0	30.62	27.49
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	55.25 PK	68.20	-12.95	1.00 V	125	43.00	12.25
2	*5550.00	104.51 PK			1.00 V	125	91.95	12.56
3	*5550.00	94.22 AV			1.00 V	125	81.66	12.56
4	11100.00	54.18 PK	74.00	-19.82	1.00 V	0	31.94	22.24
5	11100.00	42.36 AV	54.00	-11.64	1.00 V	0	20.12	22.24
6	#16650.00	57.98 PK	68.20	-10.22	1.00 V	0	30.49	27.49

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.75 PK			1.00 H	145	85.49	13.26
2	*5670.00	88.64 AV			1.00 H	145	75.38	13.26
3	#5725.00	55.26 PK	68.20	-12.94	1.00 H	145	41.68	13.58
4	#5744.00	59.09 PK	68.20	-9.11	1.00 H	145	45.40	13.69
5	11340.00	54.20 PK	74.00	-19.80	1.00 H	0	31.85	22.35
6	11340.00	42.12 AV	54.00	-11.88	1.00 H	0	19.77	22.35
7	#17010.00	58.45 PK	68.20	-9.75	1.00 H	0	29.98	28.47

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

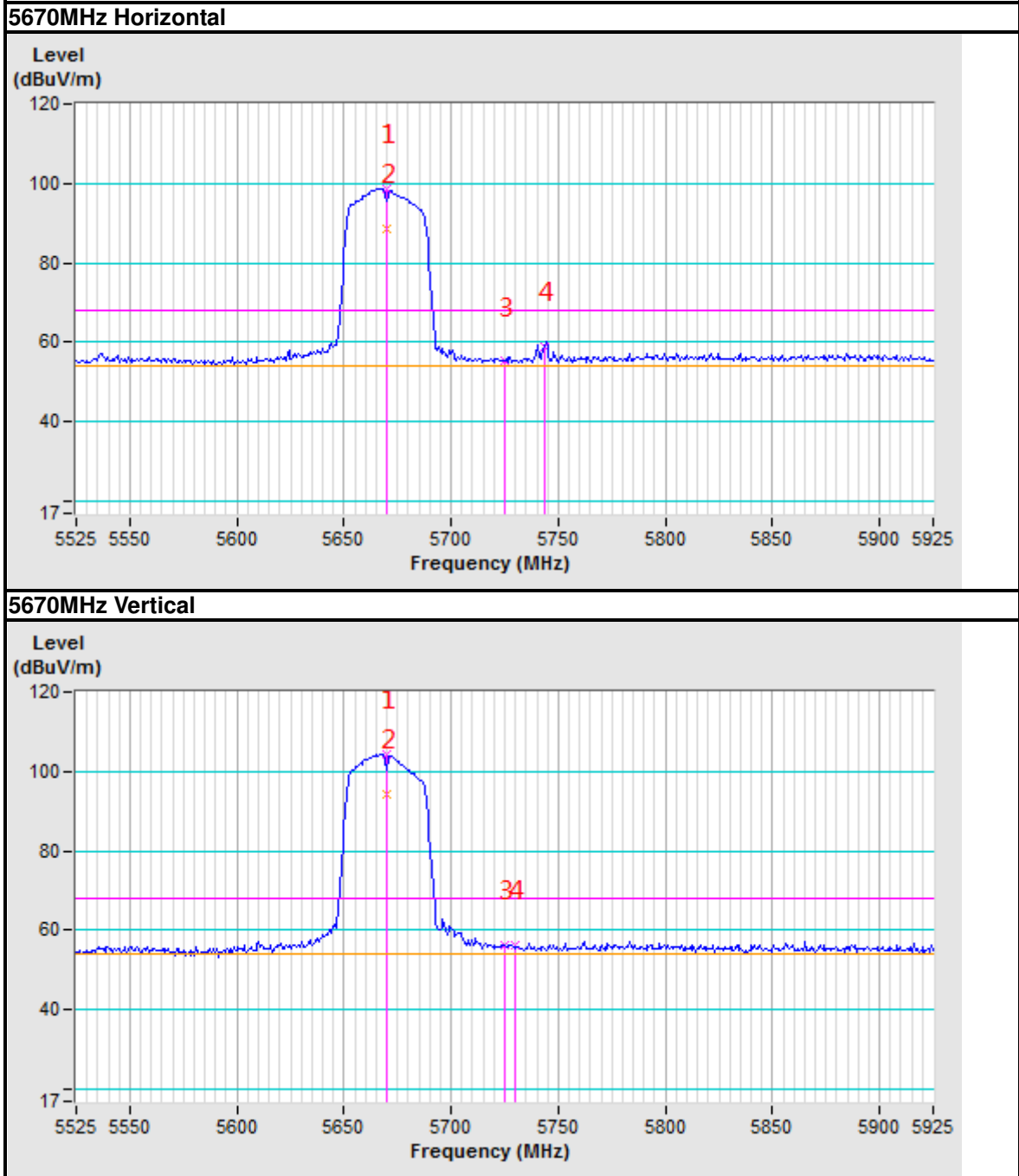
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	104.42 PK			1.00 V	156	91.16	13.26
2	*5670.00	94.32 AV			1.00 V	156	81.06	13.26
3	#5725.00	56.45 PK	68.20	-11.75	1.00 V	156	42.87	13.58
4	#5730.00	56.46 PK	68.20	-11.74	1.00 V	156	42.86	13.60
5	11340.00	54.35 PK	74.00	-19.65	1.00 V	0	32.00	22.35
6	11340.00	42.52 AV	54.00	-11.48	1.00 V	0	20.17	22.35
7	#17010.00	58.00 PK	68.20	-10.20	1.00 V	0	29.53	28.47

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.00	56.54 PK	68.20	-11.66	1.00 H	125	44.30	12.24
2	#5470.00	57.39 PK	68.20	-10.81	1.00 H	125	45.14	12.25
3	*5530.00	98.60 PK			1.00 H	125	86.15	12.45
4	*5530.00	88.74 AV			1.00 H	125	76.29	12.45
5	11060.00	54.22 PK	74.00	-19.78	1.00 H	0	31.99	22.23
6	11060.00	42.61 AV	54.00	-11.39	1.00 H	0	20.38	22.23
7	#16590.00	58.45 PK	68.20	-9.75	1.00 H	0	31.13	27.32
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	#5465.00	56.16 PK	68.20	-12.04	1.00 V	125	43.92	12.24
2	#5470.00	57.36 PK	68.20	-10.84	1.00 V	125	45.11	12.25
3	*5530.00	100.44 PK			1.00 V	125	87.99	12.45
4	*5530.00	90.54 AV			1.00 V	125	78.09	12.45
5	11060.00	54.37 PK	74.00	-19.63	1.00 V	0	32.14	22.23
6	11060.00	42.88 AV	54.00	-11.12	1.00 V	0	20.65	22.23
7	#16590.00	58.20 PK	68.20	-10.00	1.00 V	0	30.88	27.32

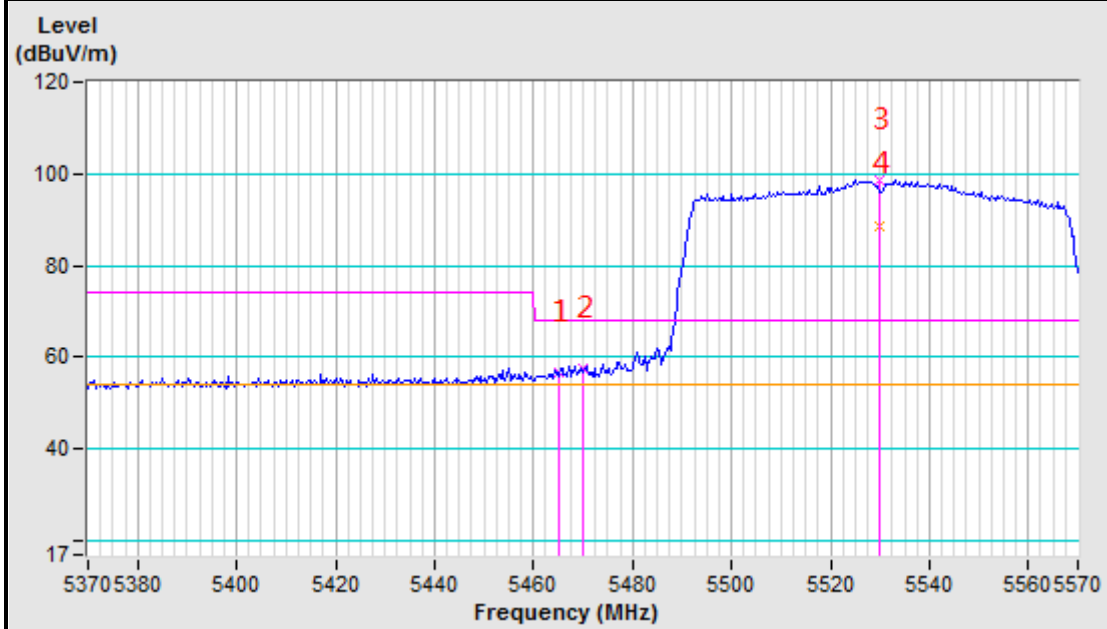
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

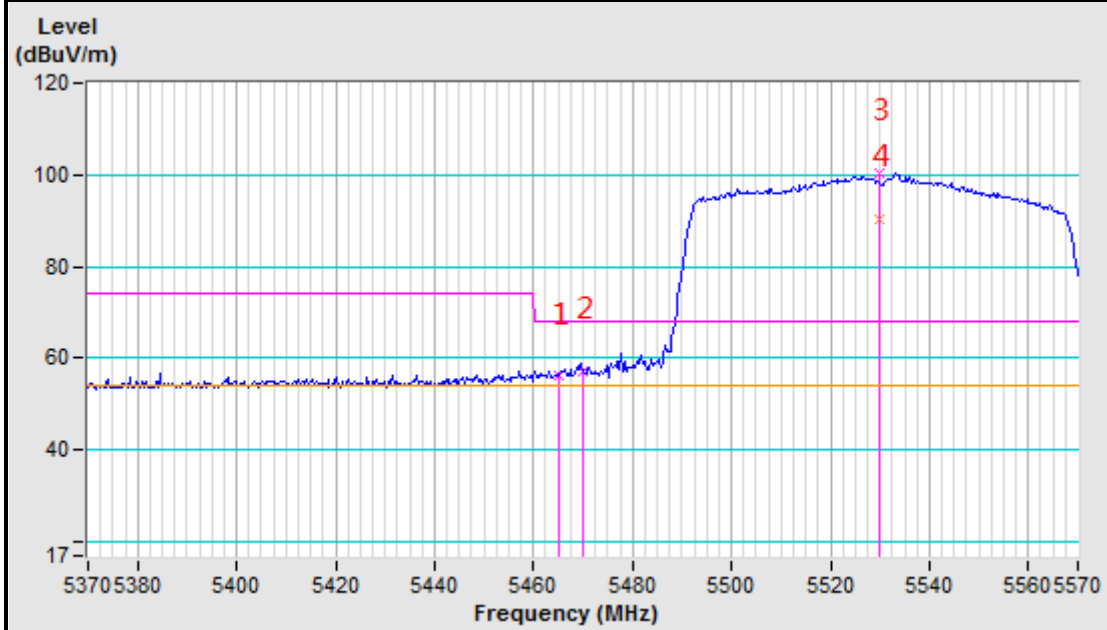


### Band edge Plot

#### 5530MHz Horizontal



#### 5530MHz Vertical







**Band 4 (5725-5850MHz):**

**ABOVE 1GHz DATA**

**802.11a**

<b>CHANNEL</b>	TX Channel 149	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	#5724.16	62.60 PK	120.28	-57.68	1.00 H	0	49.02	13.58
2	#5725.00	63.83 PK	122.20	-58.37	1.00 H	0	50.25	13.58
3	*5745.00	104.20 PK			1.00 H	110	90.51	13.69
4	*5745.00	96.15 AV			1.00 H	110	82.46	13.69
5	#5936.66	52.45 PK	68.20	-15.75	1.00 H	0	37.66	14.79
6	11490.00	54.36 PK	74.00	-19.64	1.00 H	0	31.94	22.42
7	11490.00	42.28 AV	54.00	-11.72	1.00 H	0	19.86	22.42
8	#17235.00	56.69 PK	68.20	-11.51	1.00 H	0	27.91	28.78
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	#5723.69	68.69 PK	119.21	-50.52	1.00 V	126	55.13	13.56
2	#5724.19	69.67 PK	120.35	-50.68	1.00 V	126	56.09	13.58
3	#5725.00	70.96 PK	122.20	-51.24	1.00 V	126	57.38	13.58
4	*5745.00	111.88 PK			1.00 V	26	98.19	13.69
5	*5745.00	104.13 AV			1.00 V	26	90.44	13.69
6	11490.00	55.62 PK	74.00	-18.38	1.00 V	0	33.20	22.42
7	11490.00	43.32 AV	54.00	-10.68	1.00 V	0	20.90	22.42
8	#17235.00	58.62 PK	68.20	-9.58	1.00 V	0	29.84	28.78

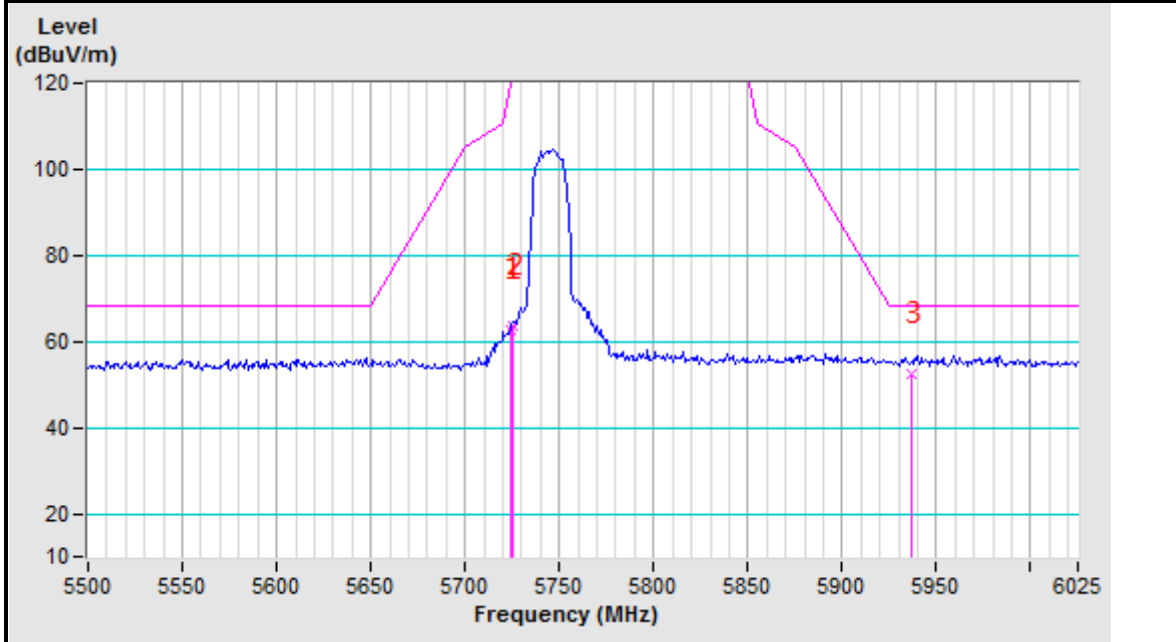
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

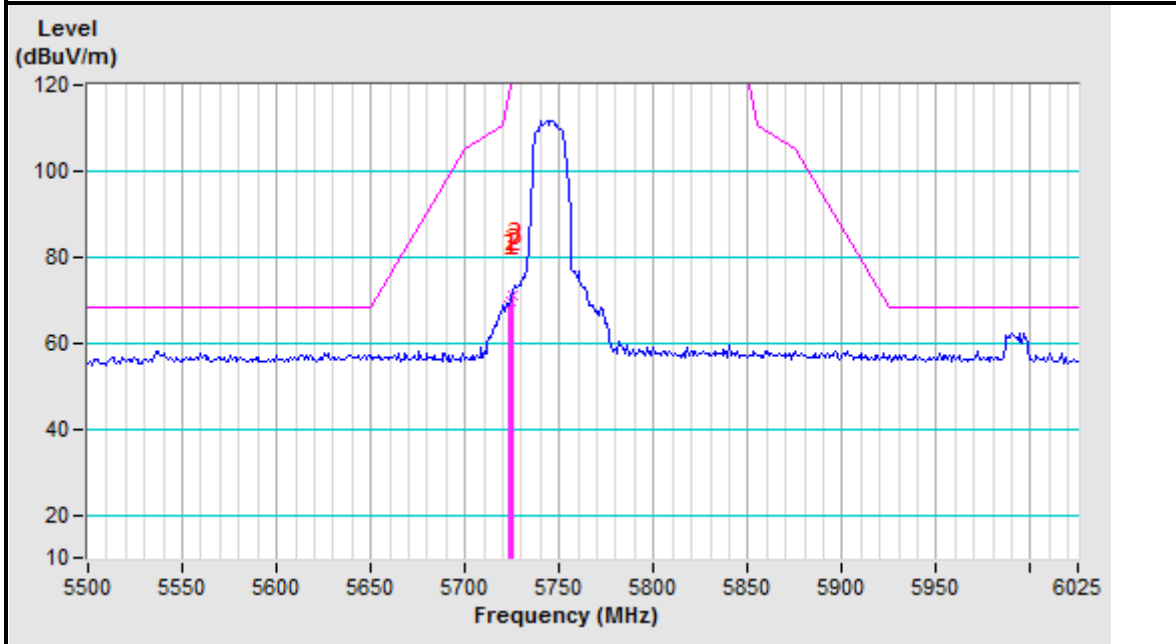


### Band edge Plot

#### 5745MHz Horizontal



#### 5745MHz Vertical





<b>CHANNEL</b>	TX Channel 157	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	#5633.29	54.65 PK	68.20	-13.55	1.00 H	0	41.60	13.05
2	#5723.32	55.67 PK	118.36	-62.69	1.00 H	0	42.11	13.56
3	*5785.00	110.74 PK			1.00 H	203	96.82	13.92
4	*5785.00	103.05 AV			1.00 H	203	89.13	13.92
5	#5934.98	56.46 PK	68.20	-11.74	1.00 H	0	41.67	14.79
6	11570.00	60.36 PK	74.00	-13.64	1.00 H	0	37.80	22.56
7	11570.00	45.59 AV	54.00	-8.41	1.00 H	0	23.03	22.56
8	#17355.00	61.23 PK	68.20	-6.97	1.00 H	0	32.29	28.94

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

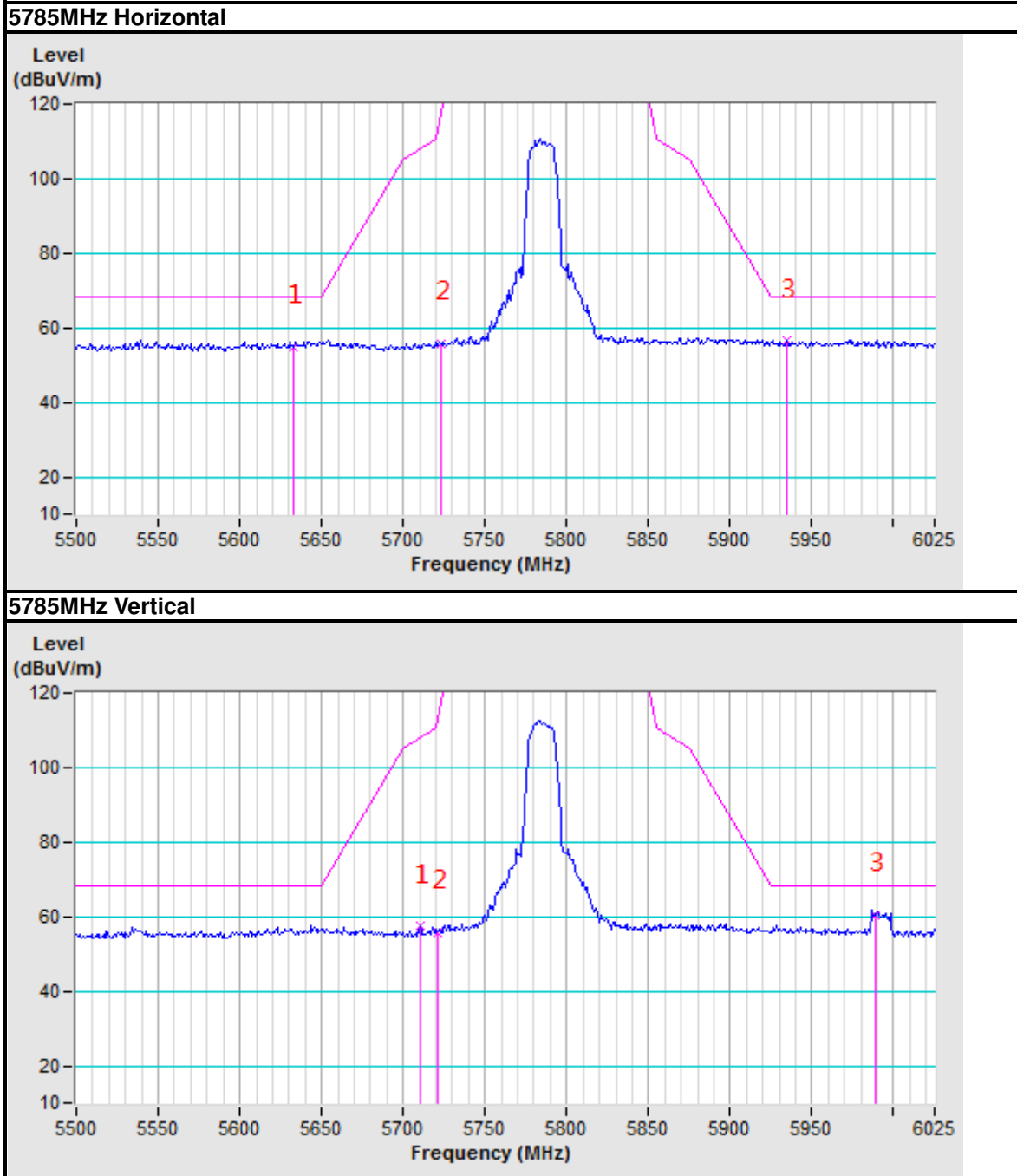
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5710.70	57.38 PK	108.20	-50.82	1.00 V	0	43.89	13.49
2	#5720.79	55.89 PK	112.61	-56.72	1.00 V	0	42.34	13.55
3	*5785.00	112.49 PK			1.00 V	303	98.57	13.92
4	*5785.00	105.21 AV			1.00 V	303	91.29	13.92
5	#5988.82	60.57 PK	68.20	-7.63	1.00 V	0	45.48	15.09
6	11570.00	61.03 PK	74.00	-12.97	1.00 V	0	38.47	22.56
7	11570.00	46.96 AV	54.00	-7.04	1.00 V	0	24.40	22.56
8	#17355.00	62.33 PK	68.20	-5.87	1.00 V	0	33.39	28.94

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5642.55	56.37 PK	68.20	-11.83	1.00 H	0	43.27	13.10
2	#5650.12	54.79 PK	68.29	-13.50	1.00 H	0	41.65	13.14
3	#5725.00	55.40 PK	122.20	-66.80	1.00 H	0	41.82	13.58
4	*5825.00	110.09 PK			1.00 H	230	95.93	14.16
5	*5825.00	103.21 AV			1.00 H	230	89.05	14.16
6	11650.00	56.62 PK	74.00	-17.38	1.00 H	0	33.92	22.70
7	11650.00	43.26 AV	54.00	-10.74	1.00 H	0	20.56	22.70
8	#17475.00	57.59 PK	68.20	-10.61	1.00 H	0	28.48	29.11

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5637.50	56.36 PK	68.20	-11.84	1.00 V	0	43.29	13.07
2	*5825.00	108.62 PK			1.00 V	101	94.46	14.16
3	*5825.00	101.27 AV			1.00 V	101	87.11	14.16
4	#5850.00	68.53 PK	122.20	-53.67	1.00 V	0	54.23	14.30
5	#5988.82	60.08 PK	68.20	-8.12	1.00 V	0	44.99	15.09
6	11650.00	55.45 PK	74.00	-18.55	1.00 V	0	32.75	22.70
7	11650.00	44.59 AV	54.00	-9.41	1.00 V	0	21.89	22.70
8	#17475.00	60.03 PK	68.20	-8.17	1.00 V	0	30.92	29.11

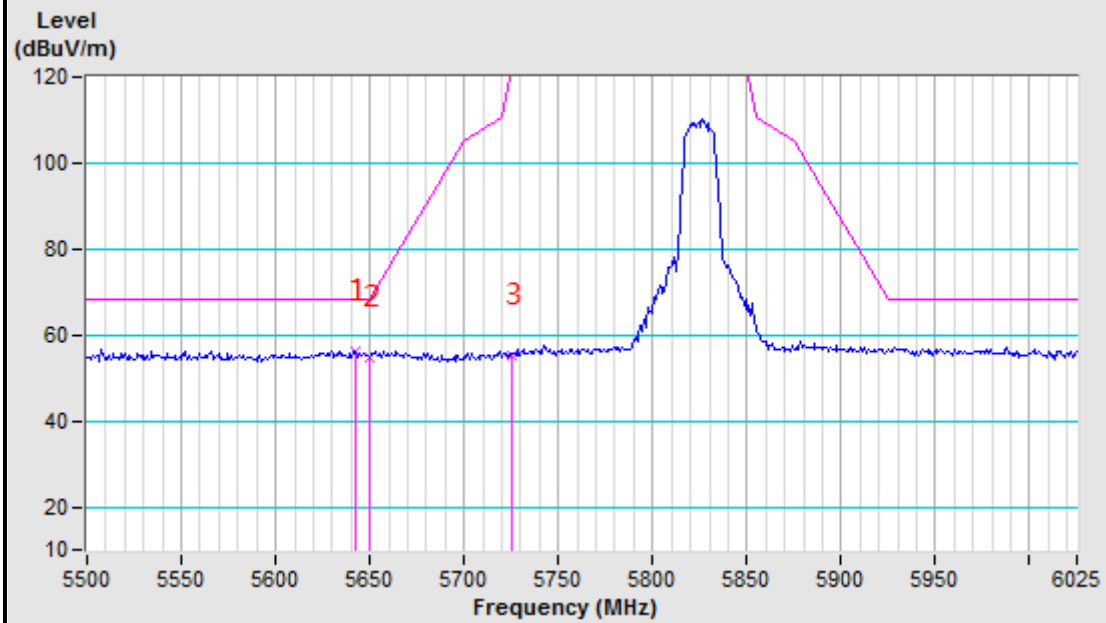
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

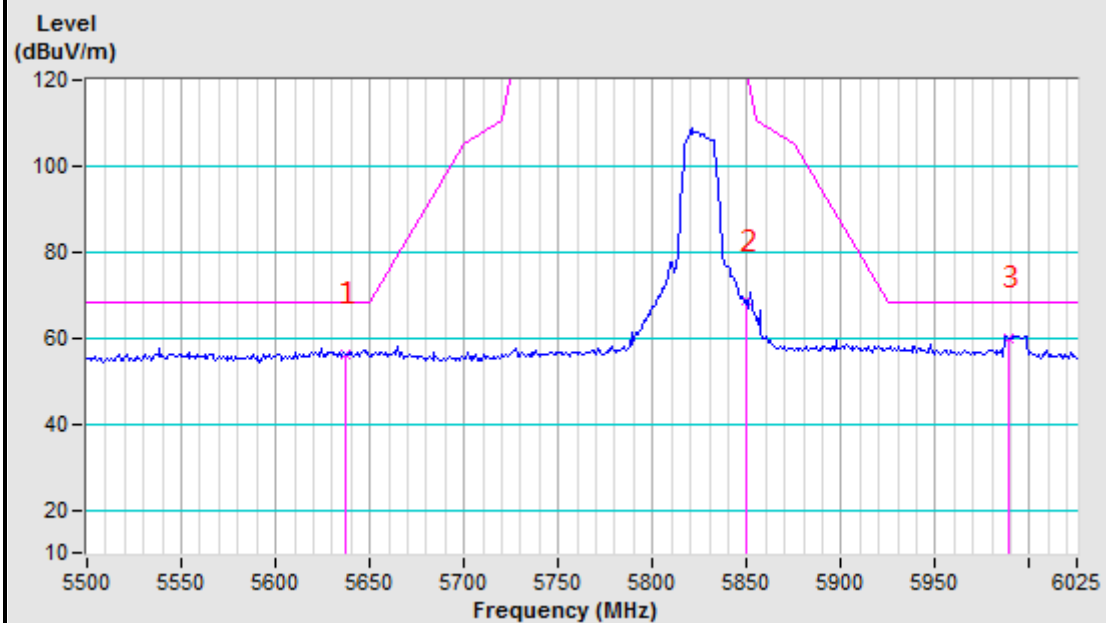


### Band edge Plot

#### 5825MHz Horizontal



#### 5825MHz Vertical





**802.11n (20MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	#5647.60	55.28 PK	68.20	-12.92	1.00 H	0	42.15	13.13
2	#5725.00	55.54 PK	122.20	-66.66	1.00 H	0	41.96	13.58
3	*5745.00	100.86 PK			1.00 H	125	87.17	13.69
4	*5745.00	93.43 AV			1.00 H	125	79.74	13.69
5	#5854.21	55.11 PK	112.61	-57.50	1.00 H	0	40.79	14.32
6	11490.00	59.62 PK	74.00	-14.38	1.00 H	0	37.20	22.42
7	11490.00	42.26 AV	54.00	-11.74	1.00 H	0	19.84	22.42
8	#17235.00	61.20 PK	68.20	-7.00	1.00 H	0	32.42	28.78

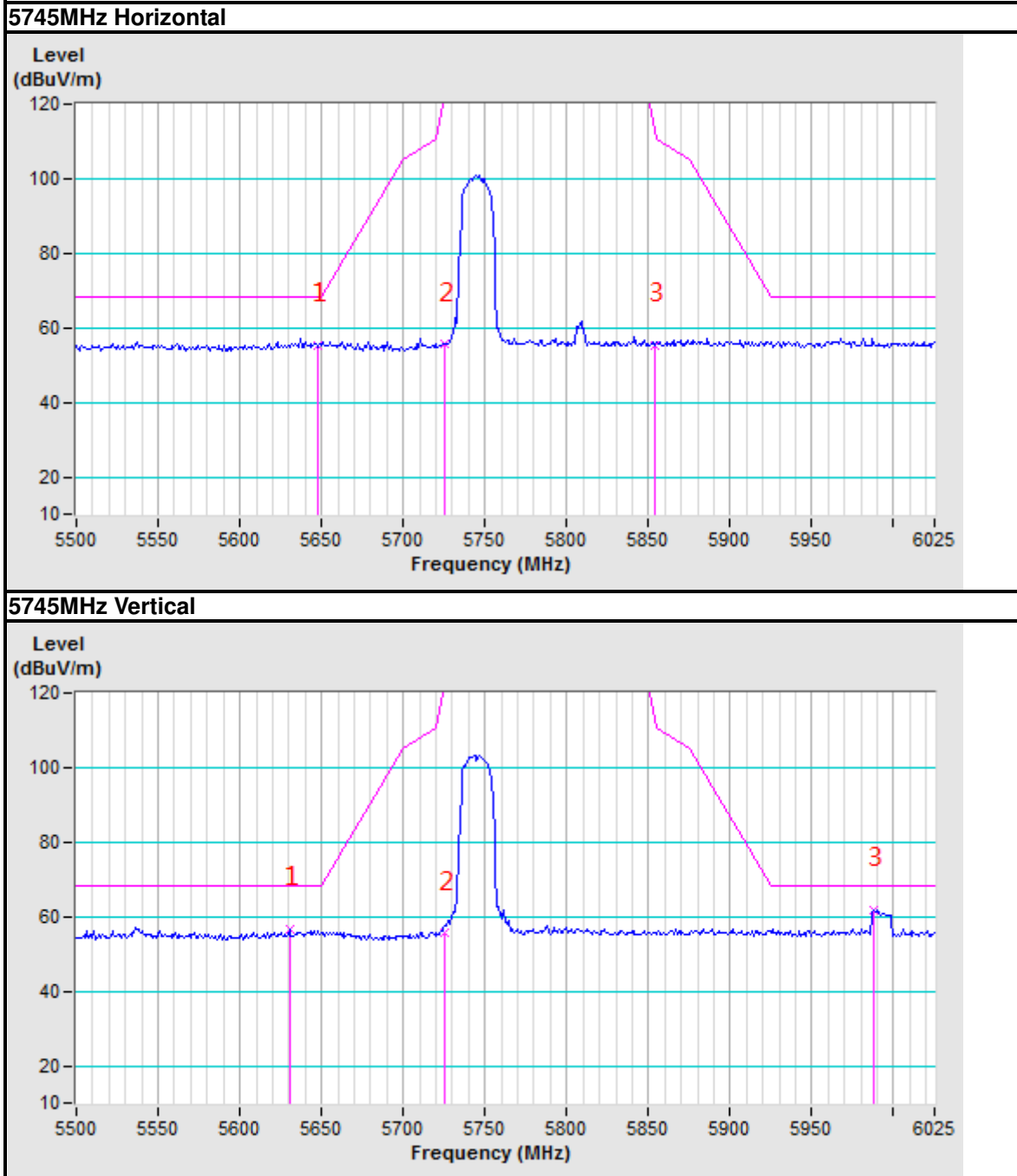
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5630.41	56.73 PK	68.20	-11.47	1.00 V	0	43.70	13.03
2	#5725.00	55.49 PK	122.20	-66.71	1.00 V	0	41.91	13.58
3	*5745.00	103.21 PK			1.00 V	20	89.52	13.69
4	*5745.00	96.09 AV			1.00 V	20	82.40	13.69
5	#5987.98	61.67 PK	68.20	-6.53	1.00 V	0	46.58	15.09
6	11490.00	60.20 PK	74.00	-13.80	1.00 V	0	37.78	22.42
7	11490.00	43.01 AV	54.00	-10.99	1.00 V	0	20.59	22.42
8	#17235.00	61.55 PK	68.20	-6.65	1.00 V	0	32.77	28.78

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot







<b>CHANNEL</b>	TX Channel 157	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	#5645.55	54.67 PK	68.20	-13.53	1.00 H	0	41.55	13.12
2	*5785.00	95.96 PK			1.00 H	41	82.04	13.92
3	*5785.00	91.27 AV			1.00 H	41	77.35	13.92
4	#5950.96	56.26 PK	68.20	-11.94	1.00 H	0	41.38	14.88
5	#5980.41	55.58 PK	68.20	-12.62	1.00 H	0	40.53	15.05
6	11570.00	57.40 PK	74.00	-16.60	1.00 H	0	34.84	22.56
7	11570.00	42.03 AV	54.00	-11.97	1.00 H	0	19.47	22.56
8	#17355.00	57.44 PK	68.20	-10.76	1.00 H	0	28.50	28.94

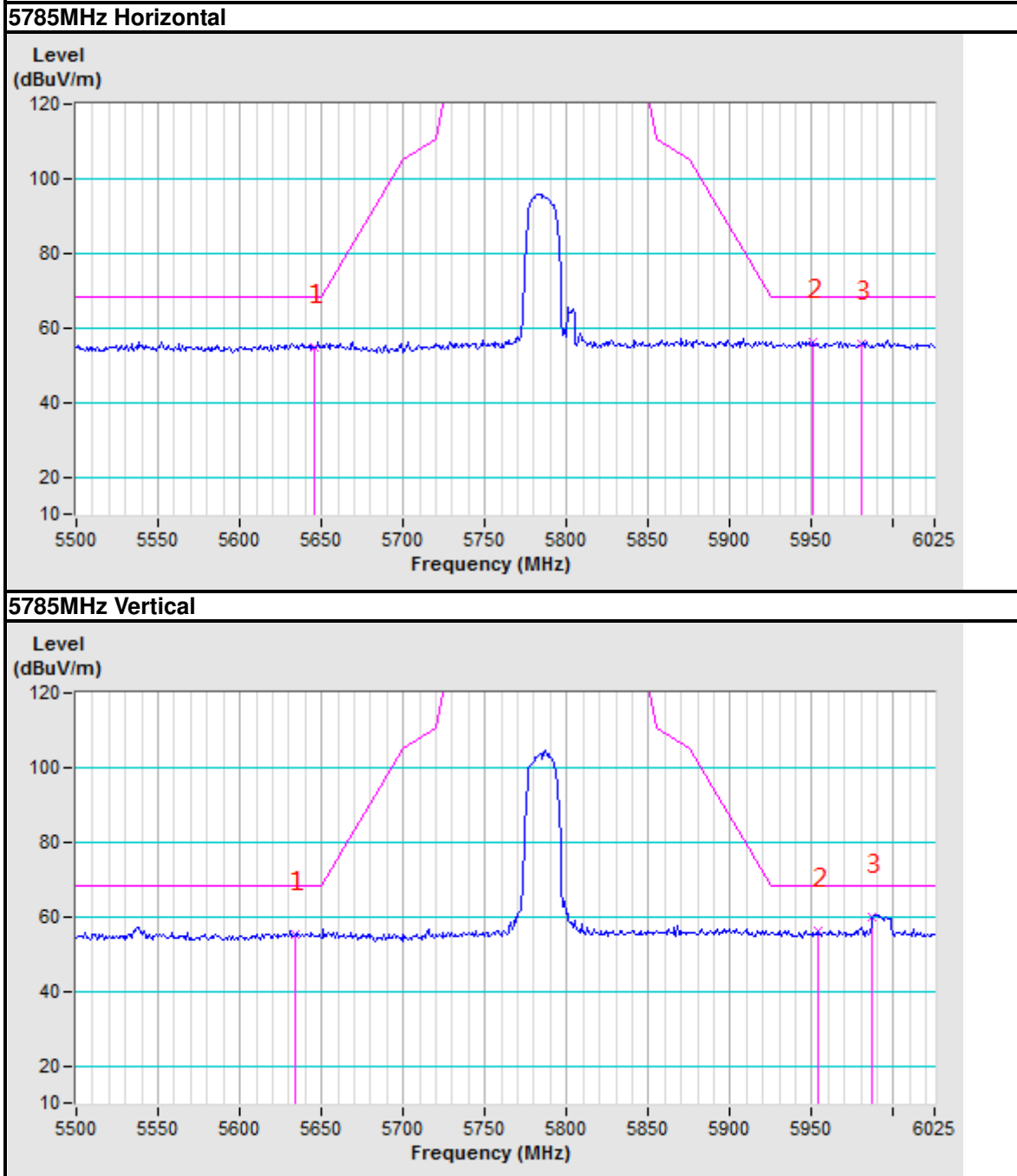
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5633.77	55.23 PK	68.20	-12.97	1.00 V	0	42.18	13.05
2	*5785.00	104.51 PK			1.00 V	126	90.59	13.92
3	*5785.00	97.42 AV			1.00 V	126	83.50	13.92
4	#5953.49	56.18 PK	68.20	-12.02	1.00 V	0	41.29	14.89
5	#5987.14	60.08 PK	68.20	-8.12	1.00 V	0	44.99	15.09
6	11570.00	59.65 PK	74.00	-14.35	1.00 V	0	37.09	22.56
7	11570.00	44.10 AV	54.00	-9.90	1.00 V	0	21.54	22.56
8	#17355.00	58.67 PK	68.20	-9.53	1.00 V	0	29.73	28.94

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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





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

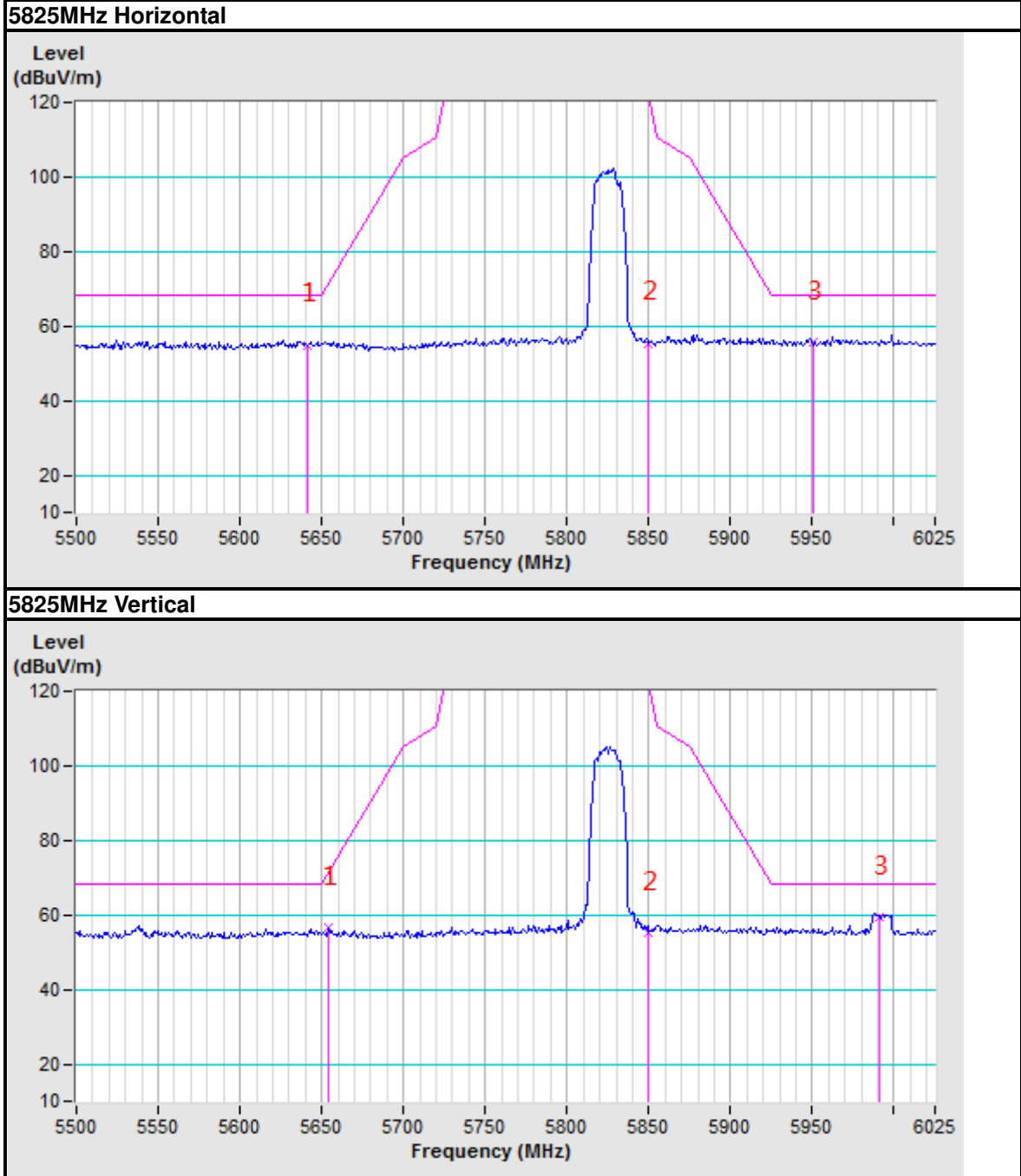
<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5641.35	54.92 PK	68.20	-13.28	1.00 H	0	41.83	13.09
2	*5825.00	102.10 PK			1.00 H	102	87.94	14.16
3	*5825.00	97.32 AV			1.00 H	102	83.16	14.16
4	#5850.00	55.34 PK	122.20	-66.86	1.00 H	0	41.04	14.30
5	#5950.96	55.46 PK	68.20	-12.74	1.00 H	0	40.58	14.88
6	11650.00	58.54 PK	74.00	-15.46	1.00 H	0	35.84	22.70
7	11650.00	45.51 AV	54.00	-8.49	1.00 H	0	22.81	22.70
8	#17475.00	59.65 PK	68.20	-8.55	1.00 H	0	30.54	29.11
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
<b>NO.</b>	<b>FREQ. (MHz)</b>	<b>EMISSION LEVEL (dBuV/m)</b>	<b>LIMIT (dBuV/m)</b>	<b>MARGIN (dB)</b>	<b>ANTENNA HEIGHT (m)</b>	<b>TABLE ANGLE (Degree)</b>	<b>RAW VALUE (dBuV)</b>	<b>CORRECTION FACTOR (dB/m)</b>
1	#5653.97	56.44 PK	71.15	-14.71	1.00 V	0	43.27	13.17
2	*5825.00	104.87 PK			1.00 V	236	90.71	14.16
3	*5825.00	100.29 AV			1.00 V	236	86.13	14.16
4	#5850.00	55.07 PK	122.20	-67.13	1.00 V	7	40.77	14.30
5	#5990.50	59.25 PK	68.20	-8.95	1.00 V	0	44.14	15.11
6	11650.00	59.68 PK	74.00	-14.32	1.00 V	0	36.98	22.70
7	11650.00	46.57 AV	54.00	-7.43	1.00 V	0	23.87	22.70
8	#17475.00	60.33 PK	68.20	-7.87	1.00 V	0	31.22	29.11

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot





**802.11n (40MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	#5649.28	55.50 PK	68.20	-12.70	1.00 H	0	42.36	13.14
2	#5725.00	56.50 PK	122.20	-65.70	1.00 H	0	42.92	13.58
3	*5755.00	98.80 PK			1.00 H	69	85.05	13.75
4	*5755.00	94.39 AV			1.00 H	69	80.64	13.75
5	#5990.87	55.74 PK	68.20	-12.46	1.00 H	0	40.63	15.11
6	11510.00	55.59 PK	74.00	-18.41	1.00 H	0	33.15	22.44
7	11510.00	45.33 AV	54.00	-8.67	1.00 H	0	22.89	22.44
8	#17265.00	60.01 PK	68.20	-8.19	1.00 H	0	31.19	28.82

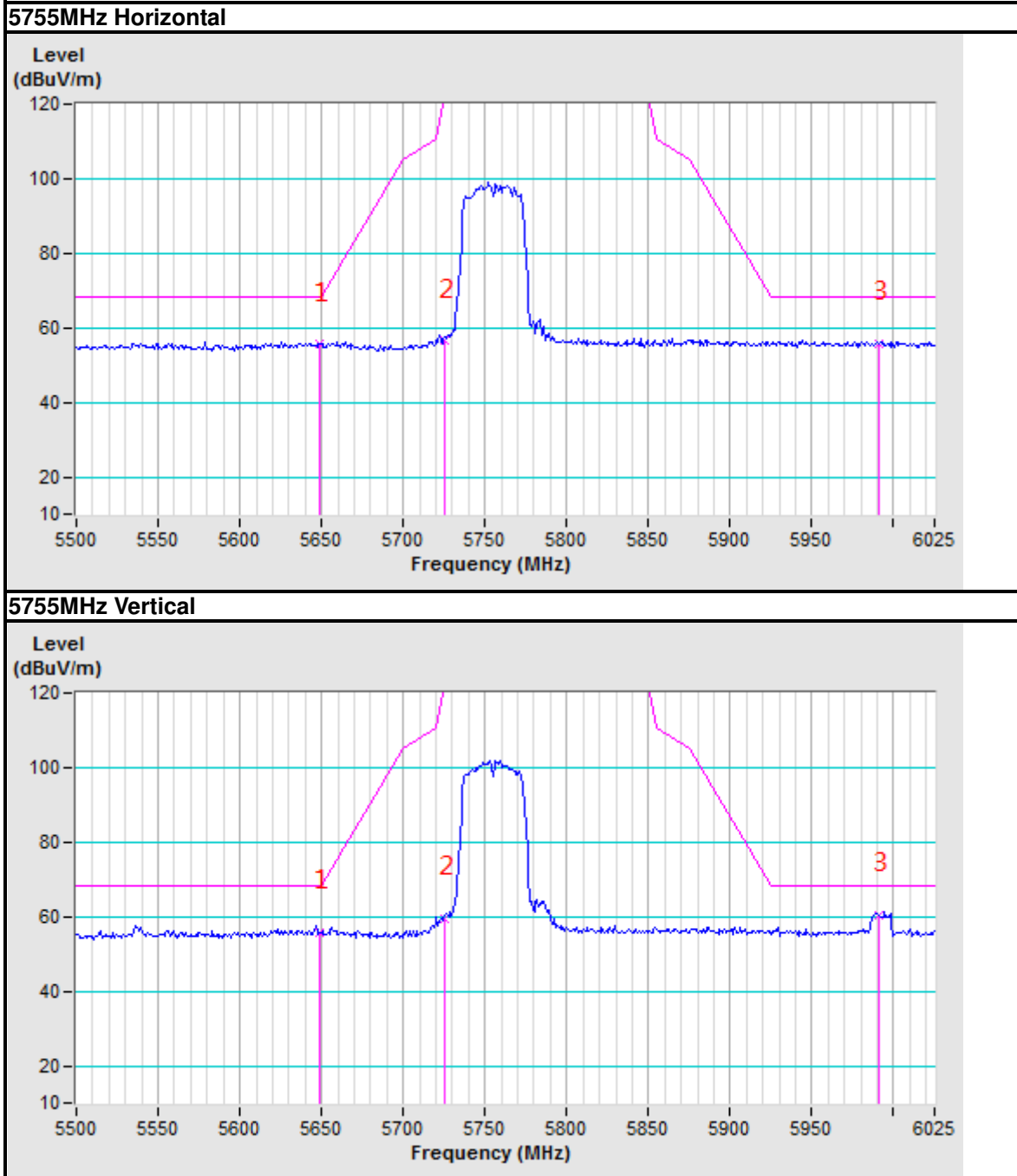
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.28	55.83 PK	68.20	-12.37	1.00 V	0	42.69	13.14
2	#5725.00	59.45 PK	122.20	-62.75	1.00 V	0	45.87	13.58
3	*5755.00	101.90 PK			1.00 V	126	88.15	13.75
4	*5755.00	94.70 AV			1.00 V	126	80.95	13.75
5	#5990.87	60.47 PK	68.20	-7.73	1.00 V	0	45.36	15.11
6	11510.00	57.42 PK	74.00	-16.58	1.00 V	0	34.98	22.44
7	11510.00	46.35 AV	54.00	-7.65	1.00 V	0	23.91	22.44
8	#17265.00	61.03 PK	68.20	-7.17	1.00 V	0	32.21	28.82

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.



### Band edge Plot





<b>CHANNEL</b>	TX Channel 159	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	#5613.10	54.84 PK	68.20	-13.36	1.00 H	0	41.91	12.93
2	*5795.00	100.20 PK			1.00 H	123	86.22	13.98
3	*5795.00	93.03 AV			1.00 H	123	79.05	13.98
4	#5850.00	55.38 PK	122.20	-66.82	1.00 H	0	41.08	14.30
5	#5855.89	55.69 PK	110.55	-54.86	1.00 H	0	41.36	14.33
6	11590.00	60.36 PK	74.00	-13.64	1.00 H	125	37.77	22.59
7	11590.00	45.59 AV	54.00	-8.41	1.00 H	125	23.00	22.59
8	#17385.00	61.02 PK	68.20	-7.18	1.00 H	0	32.04	28.98

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

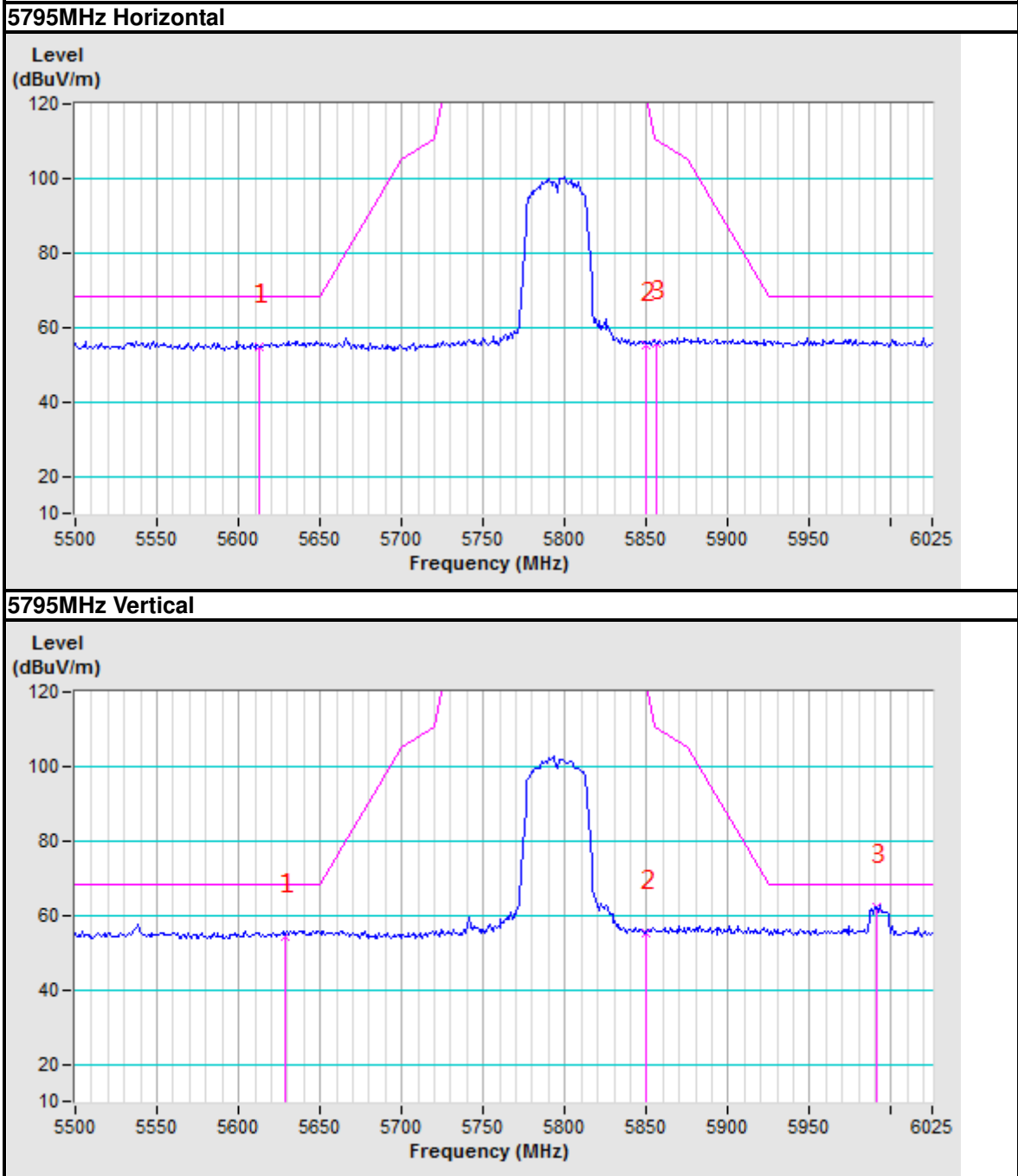
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5628.25	54.19 PK	68.20	-14.01	1.00 V	0	41.17	13.02
2	*5795.00	102.80 PK			1.00 V	55	88.82	13.98
3	*5795.00	95.97 AV			1.00 V	55	81.99	13.98
4	#5850.00	55.32 PK	122.20	-66.88	1.00 V	0	41.02	14.30
5	#5991.35	62.39 PK	68.20	-5.81	1.00 V	0	47.28	15.11
6	11590.00	61.55 PK	74.00	-12.45	1.00 V	0	38.96	22.59
7	11590.00	46.96 AV	54.00	-7.04	1.00 V	0	24.37	22.59
8	#17385.00	63.20 PK	68.20	-5.00	1.00 V	0	34.22	28.98

**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).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot







**BUREAU VERITAS** Test Report No.: RF2104WDG0365-4  
**802.11ac 80MHz**

<b>CHANNEL</b>	TX Channel 155	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	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	#5725.00	59.02 PK	122.20	-63.18	1.00 H	0	45.44	13.58
2	*5775.00	98.15 PK			1.00 H	145	84.29	13.86
3	*5775.00	88.42 AV			1.00 H	145	74.56	13.86
4	#5850.00	57.20 PK	122.20	-65.00	1.00 H	0	42.90	14.30
5	#5855.00	56.98 PK	110.80	-53.82	1.00 H	0	42.66	14.32
6	11550.00	54.10 PK	74.00	-19.90	1.00 H	0	31.59	22.51
7	11550.00	42.64 AV	54.00	-11.36	1.00 H	0	20.13	22.51
8	#17325.00	58.78 PK	68.20	-9.42	1.00 H	0	29.87	28.91

**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	#5725.00	61.86 PK	122.20	-60.34	1.00 V	0	48.28	13.58
2	*5775.00	102.73 PK			1.00 V	145	88.87	13.86
3	*5775.00	92.55 AV			1.00 V	145	78.69	13.86
4	#5850.00	58.00 PK	122.20	-64.20	1.00 V	0	43.70	14.30
5	#5855.00	58.86 PK	110.80	-51.94	1.00 V	0	44.54	14.32
6	11550.00	53.95 PK	74.00	-20.05	1.00 V	0	31.44	22.51
7	11550.00	42.12 AV	54.00	-11.88	1.00 V	0	19.61	22.51
8	#17325.00	58.67 PK	68.20	-9.53	1.00 V	0	29.76	28.91

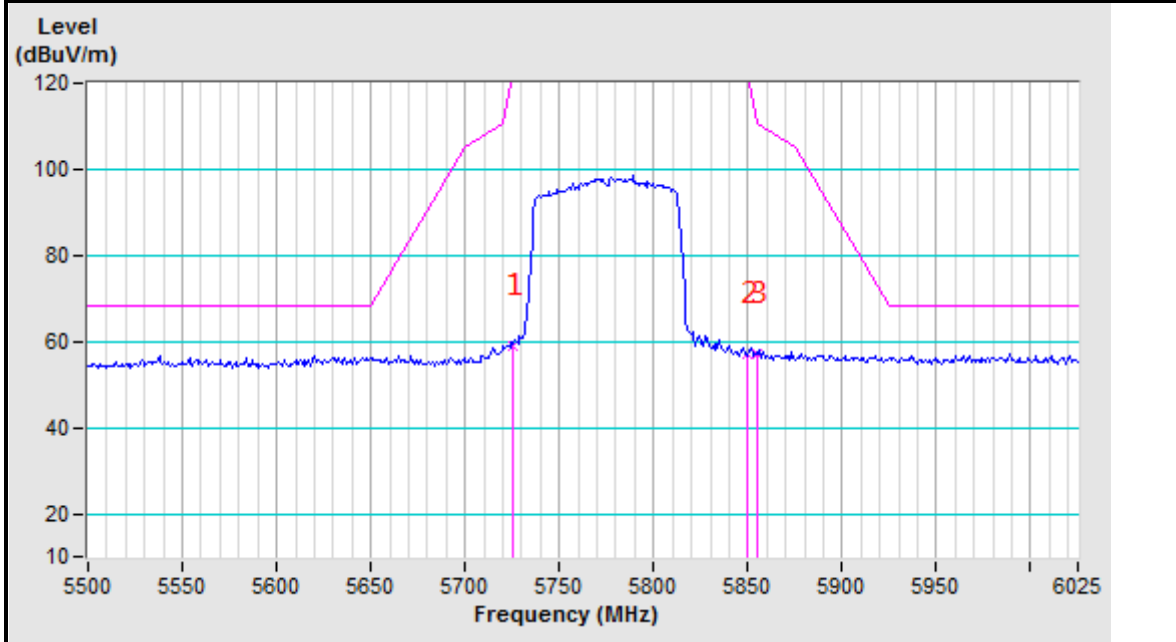
**REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

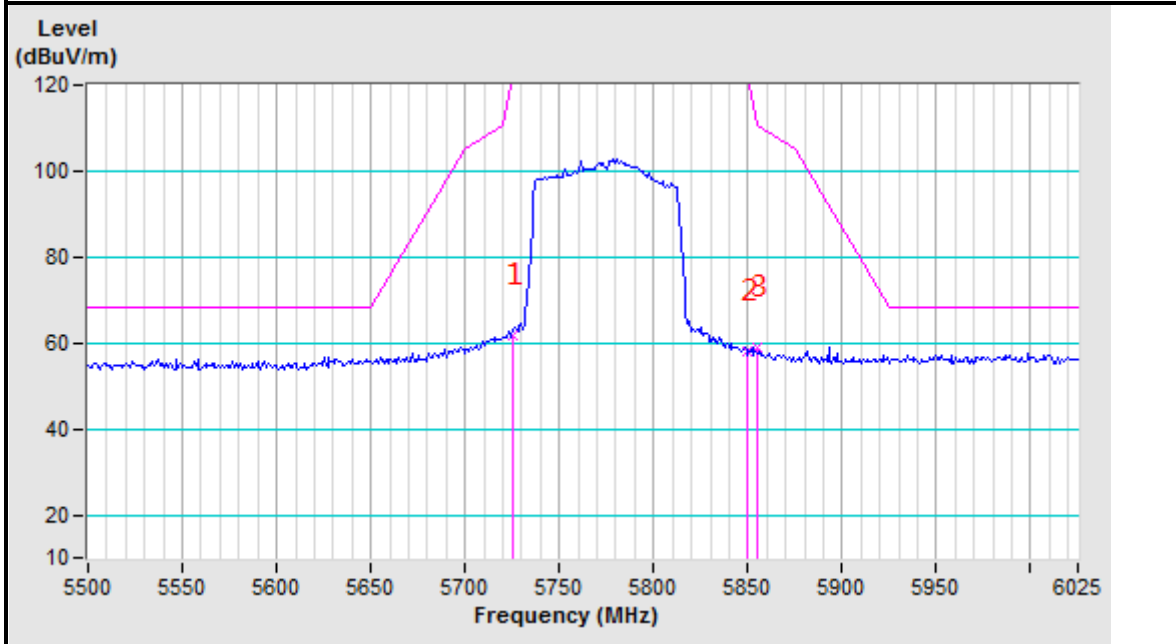


### Band edge Plot

#### 5795MHz Horizontal



#### 5795MHz Vertical





### 3.2 CONDUCTED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	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.
  3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 07,22
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 17,22
Test software	ADT	ADT_Cond_V7.3 .7	N/A	N/A

- NOTES:**
1. The test was performed in shielded room 553.
  2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



### 3.2.3 TEST PROCEDURES

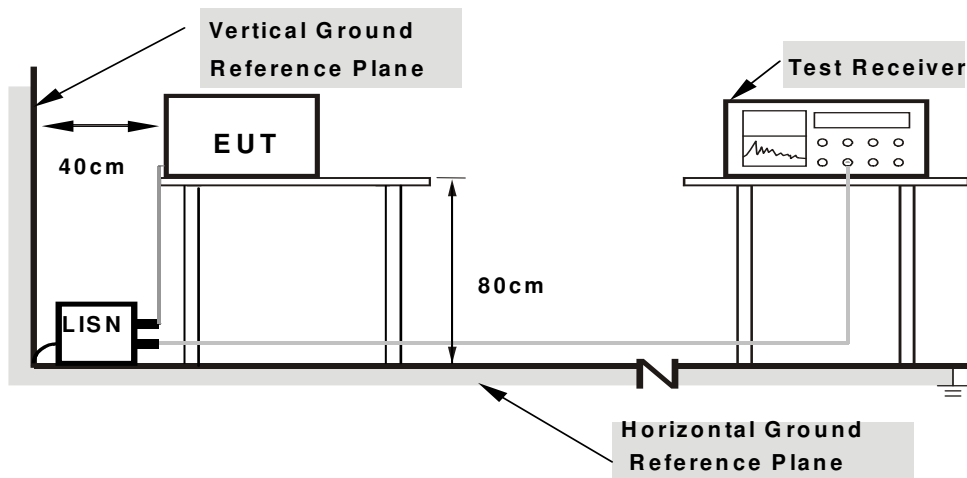
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 3.2.5 TEST SETUP



- Note:**
- 1. Support units were connected to second LISN.
  - 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

### 3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.6



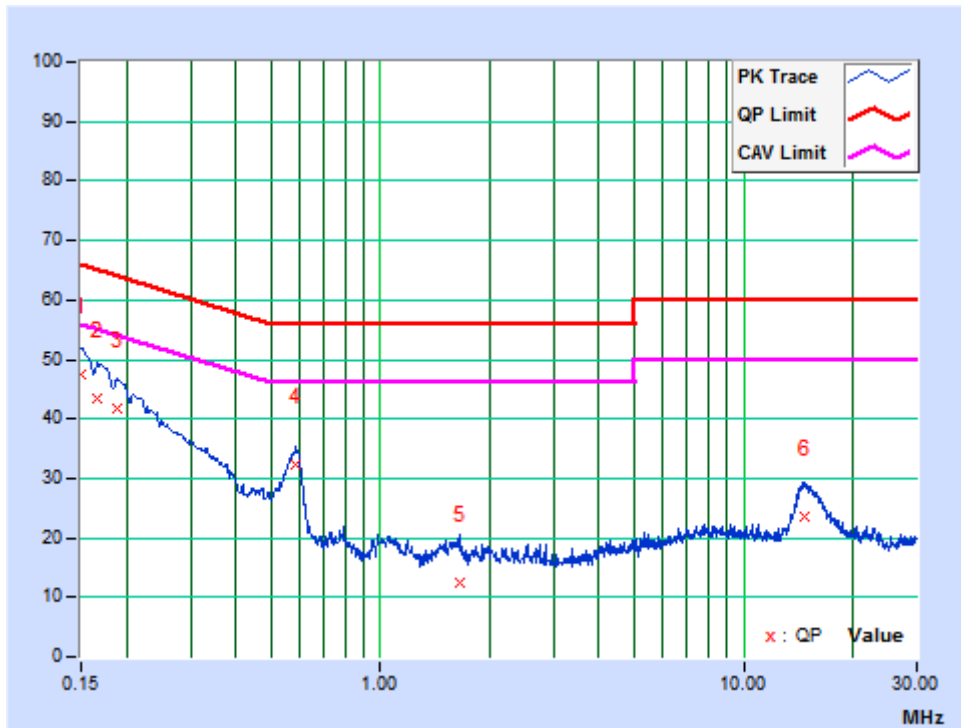
**3.2.7 TEST RESULTS**

**CONDUCTED WORST-CASE DATA: 802.11a**

<b>PHASE</b>	Line	<b>6dB BANDWIDTH</b>	9kHz
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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	37.98	19.14	47.64	28.80	66.00	56.00	-18.36	-27.20
2	0.16567	9.67	33.88	14.48	43.55	24.15	65.17	55.17	-21.62	-31.02
3	0.18806	9.70	32.07	13.54	41.77	23.24	64.12	54.12	-22.35	-30.88
4	0.58220	9.82	22.58	14.97	32.40	24.79	56.00	46.00	-23.60	-21.21
5	1.64625	9.83	2.79	-2.45	12.62	7.38	56.00	46.00	-43.38	-38.62
6	14.66025	10.07	13.36	6.54	23.43	16.61	60.00	50.00	-36.57	-33.39

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

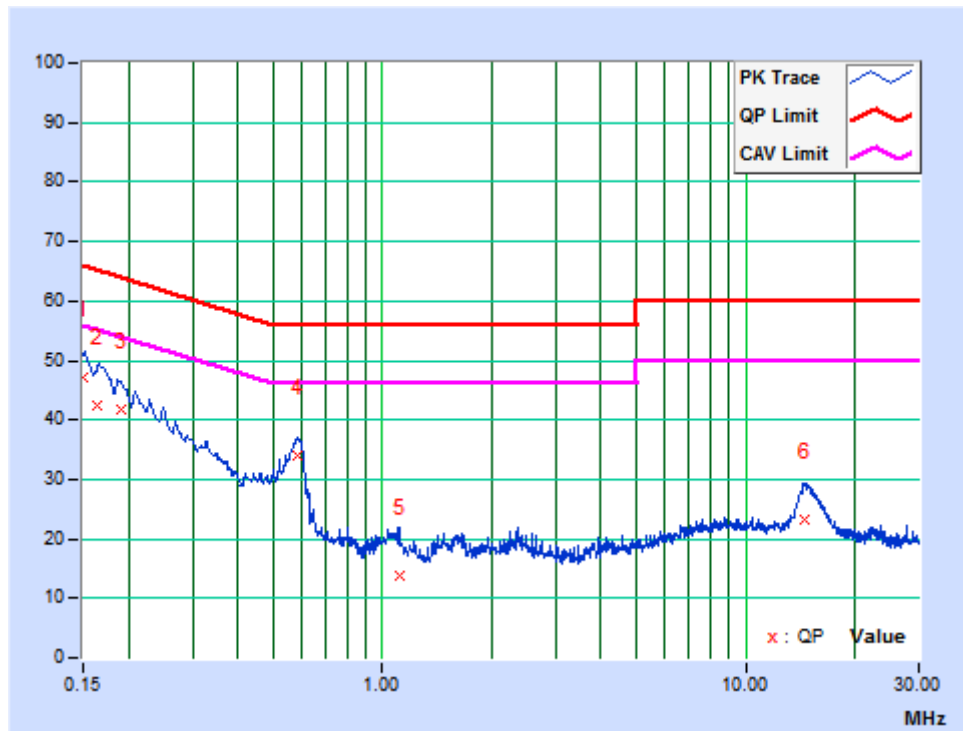




<b>PHASE</b>	Neutral	<b>6dB BANDWIDTH</b>	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.66	37.36	19.16	47.02	28.82	66.00	56.00	-18.98	-27.18
2	0.16480	9.67	32.71	12.99	42.38	22.66	65.22	55.22	-22.84	-32.56
3	0.19050	9.71	32.15	14.42	41.86	24.13	64.01	54.01	-22.16	-29.89
4	0.58528	9.84	24.26	16.59	34.10	26.43	56.00	46.00	-21.90	-19.57
5	1.11075	9.83	3.96	-1.63	13.79	8.20	56.00	46.00	-42.21	-37.80
6	14.55450	10.11	13.27	6.70	23.38	16.81	60.00	50.00	-36.62	-33.19

- 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.





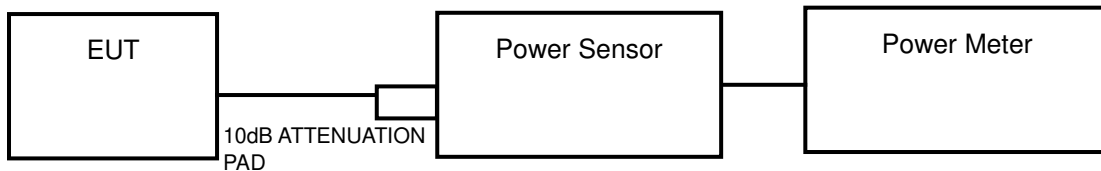
### 3.3 TRANSMIT POWER MEASUREMENT

#### 3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

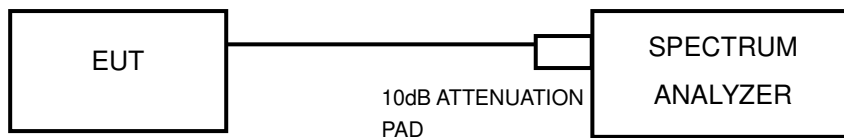
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≤ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

**NOTE:** 1. Where B is the 26dB emission bandwidth in MHz.

#### 3.3.2 TEST SETUP



#### FOR 6/26dB BANDWIDTH





### 3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	N/A
Power Sensor	Keysight	U2021XA	MY55060018	May 09, 22
Power Meter	Anritsu	ML2495A	1139001	Feb. 24,22
Power Sensor	Anritsu	MA2411B	1531155	Feb. 24,22
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Nov. 03,21
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 10,22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Feb. 24,22
Signal Generator	Agilent	N5183A	MY50140980	Aug. 10,22
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 04,22
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A

**NOTES:**

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

### 3.3.4 TEST PROCEDURE

#### FOR AVERAGE POWER MEASUREMENT

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

#### FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = RMS.
- 4) Trace mode = max hold.
- 5) 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 6dB BANDWIDTH**

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

#### 3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



### 3.3.7 TEST RESULTS

**OUTPUT POWER:**

**802.11a**

**Chain 0**

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	10.65	11.614	24.00	PASS
40	5200	10.53	11.298	24.00	PASS
48	5240	10.54	11.324	24.00	PASS
52	5260	10.60	11.482	24.00	PASS
60	5300	10.56	11.376	24.00	PASS
64	5320	10.64	11.588	24.00	PASS
100	5500	10.80	12.023	24.00	PASS
116	5580	10.52	11.272	24.00	PASS
140	5700	10.84	12.134	24.00	PASS
149	5745	9.40	8.710	30.00	PASS
157	5785	9.64	9.204	30.00	PASS
165	5825	9.69	9.311	30.00	PASS

**For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(20.19)=24.05dBm > 24dBm**

20.19MHz Calculated results correspond to the worst limiting results.



**Chain 1**

<b>CHANNEL NUMBER</b>	<b>FREQ. (MHz)</b>	<b>AVG. CONDUCTED POWER (dBm)</b>	<b>AVG. CONDUCTED POWER (mW)</b>	<b>LIMIT (dBm)</b>	<b>PASS /FAIL</b>
<b>36</b>	5180	10.69	11.722	24.00	PASS
<b>40</b>	5200	10.71	11.776	24.00	PASS
<b>48</b>	5240	10.98	12.531	24.00	PASS
<b>52</b>	5260	11.08	12.823	24.00	PASS
<b>60</b>	5300	11.28	13.428	24.00	PASS
<b>64</b>	5320	11.33	13.583	24.00	PASS
<b>100</b>	5500	10.21	10.495	24.00	PASS
<b>116</b>	5580	9.93	9.840	24.00	PASS
<b>140</b>	5700	10.32	10.765	24.00	PASS
<b>149</b>	5745	9.74	9.419	30.00	PASS
<b>157</b>	5785	9.85	9.661	30.00	PASS
<b>165</b>	5825	9.72	9.376	30.00	PASS

**For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(20.10)=24.03dBm > 24dBm**

20.10MHz Calculated results correspond to the worst limiting results.



802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	6.65	6.41	4.624	4.375	8.999	9.54	23.38	PASS
40	5200	6.67	6.22	4.645	4.188	8.833	9.46	23.38	PASS
48	5240	6.67	6.51	4.645	4.477	9.122	9.60	23.38	PASS
52	5260	6.65	6.69	4.624	4.667	9.291	9.68	23.38	PASS
60	5300	6.80	6.75	4.786	4.732	9.518	9.79	23.38	PASS
64	5320	6.91	6.77	4.909	4.753	9.662	9.85	23.38	PASS
100	5500	7.01	5.69	5.023	3.707	8.730	9.41	23.38	PASS
120	5600	6.81	5.39	4.797	3.459	8.256	9.17	23.38	PASS
140	5700	6.90	5.81	4.898	3.811	8.709	9.40	23.38	PASS
149	5745	6.22	5.83	4.188	3.828	8.016	9.04	23.38	PASS
157	5785	6.36	6.10	4.325	4.074	8.399	9.24	29.38	PASS
165	5825	6.48	5.99	4.446	3.972	8.418	9.25	29.38	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(20.52)=24.12dBm > 24dBm

20.52MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1

1. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

For U-NII-2A

2. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

For U-NII-2C

3. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

For U-NII-3

Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi



**802.11n (40MHz)**

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	6.95	6.34	4.955	4.305	9.260	9.67	23.38	PASS
46	5230	6.79	6.69	4.775	4.667	9.442	9.75	23.38	PASS
54	5270	6.96	6.93	4.966	4.932	9.898	9.96	23.38	PASS
62	5310	6.97	6.94	4.977	4.943	9.920	9.97	23.38	PASS
102	5510	7.17	5.81	5.212	3.811	9.023	9.55	23.38	PASS
118	5590	6.99	5.65	5.000	3.673	8.673	9.38	23.38	PASS
134	5670	6.97	5.83	4.977	3.828	8.805	9.45	23.38	PASS
151	5755	6.61	6.73	4.581	4.710	9.291	9.68	29.38	PASS
159	5795	6.81	6.72	4.797	4.699	9.496	9.78	29.38	PASS

**For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(41.56)=27.19dBm > 24dBm**

41.56MHz Calculated results correspond to the worst limiting results.

Notes:

**For U-NII-1**

1. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2A**

2. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2C**

3. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-3**

4. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.



**802.11ac (80MHz)**

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	7.81	7.39	6.039	5.483	11.522	10.62	23.38	PASS
58	5290	7.79	7.87	6.012	6.124	12.136	10.84	23.38	PASS
106	5530	7.68	6.57	5.861	4.539	10.40	10.17	29.38	PASS
155	5775	6.45	6.11	4.416	4.083	8.499	9.29	29.38	PASS

**For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(81.66)=30.12dBm > 24dBm**

81.66MHz Calculated results correspond to the worst limiting results.

Notes:

**For U-NII-1**

- 4. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2A**

- 5. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2C**

- 6. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-3**

- 7. Directional gain= 3.61 + 10\*log(2) =6.62dBi, more than 6dBi, so the power density limit need to reduce 0.62dBi.



**26dB BANDWIDTH:**

**802.11a**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
36	5180	20.23	20.35	PASS
40	5200	20.24	20.34	PASS
48	5240	20.23	20.40	PASS
52	5260	20.23	20.27	PASS
60	5300	20.23	20.28	PASS
64	5320	20.20	20.26	PASS
100	5500	20.19	20.10	PASS
132	5660	20.26	20.23	PASS
140	5700	20.34	20.35	PASS

**802.11n (20MHz)**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
36	5180	20.58	20.62	PASS
40	5200	20.45	20.53	PASS
48	5240	20.49	20.46	PASS
52	5260	20.58	20.52	PASS
60	5300	20.56	20.52	PASS
64	5320	20.61	20.52	PASS
100	5500	20.55	20.53	PASS
132	5660	20.62	20.59	PASS
140	5700	20.52	20.59	PASS



**802.11n (40MHz)**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
38	5190	41.56	41.58	PASS
46	5230	41.62	41.59	PASS
54	5270	41.72	41.67	PASS
62	5310	41.72	41.70	PASS
102	5510	41.58	41.57	PASS
110	5550	41.68	41.57	PASS
134	5670	41.56	41.61	PASS

**802.11ac (80MHz)**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
42	5210	81.69	81.79	PASS
58	5290	81.92	81.69	PASS
106	5530	81.65	81.74	PASS





6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
149	5745	15.19	13.20	PASS
157	5785	15.19	15.18	PASS
165	5825	15.19	15.18	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
149	5745	15.18	15.17	PASS
157	5785	15.19	15.18	PASS
165	5825	15.16	15.19	PASS

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
151	5755	35.27	35.26	PASS
159	5795	35.26	35.27	PASS

802.11ac (80MHz)

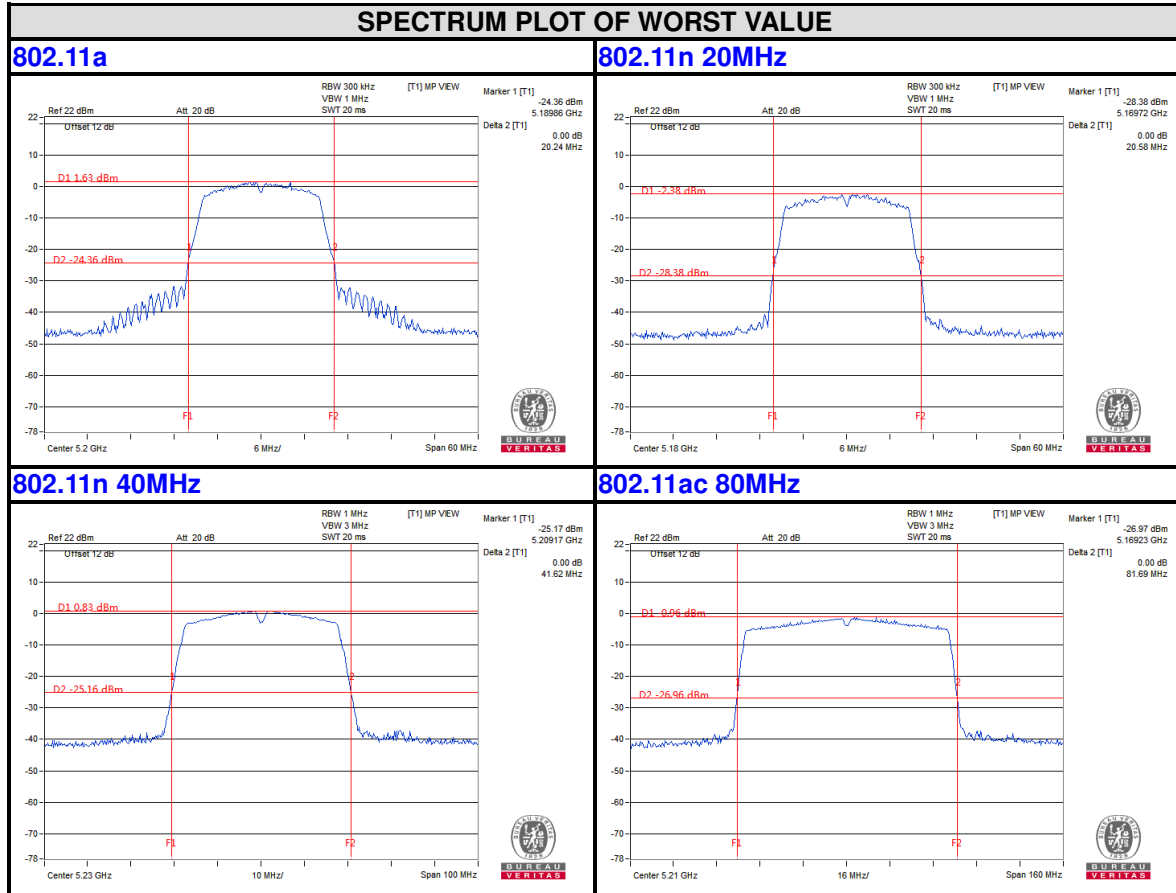
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
155	5775	76.49	76.52	PASS



**BUREAU VERITAS**

Test Report No.: RF2104WDG0365-4

**26dB bandwidth Test Plot  
For 5150-5250MHz worst plot  
Chain 0**



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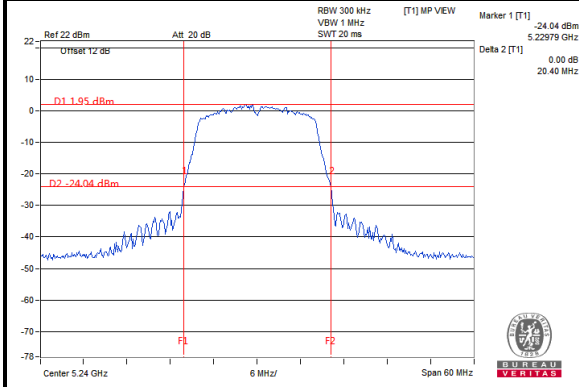
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Test Report No.: RF2104WDG0365-4

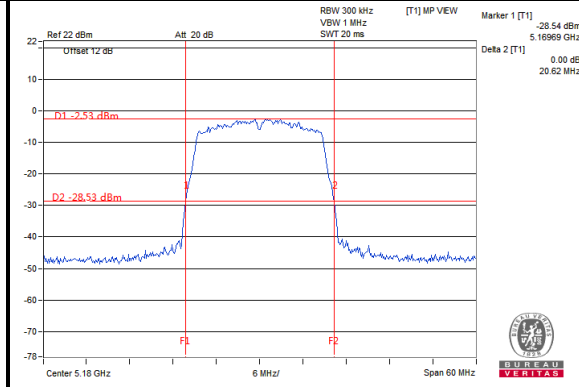
Chain 1

SPECTRUM PLOT OF WORST VALUE

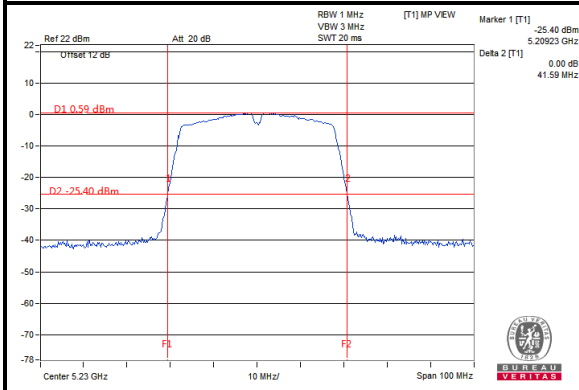
802.11a



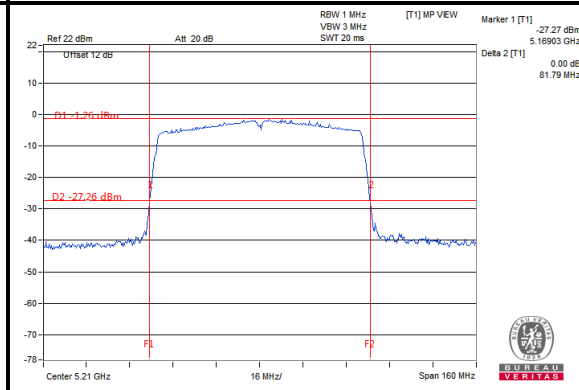
802.11n 20MHz



802.11n 40MHz



802.11ac 80MHz



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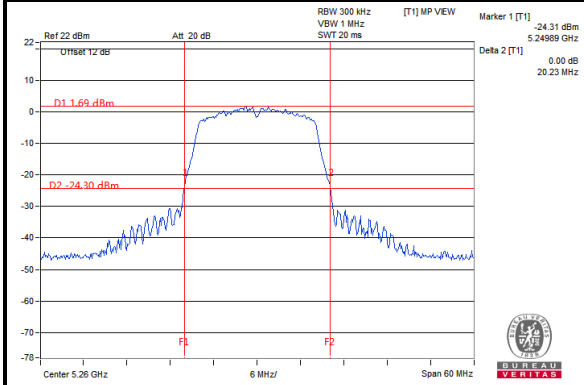
**BUREAU VERITAS**

Test Report No.: RF2104WDG0365-4

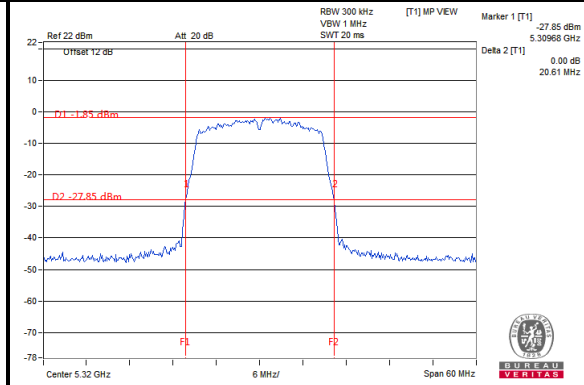
For 5250-5350MHz  
Chain 0

### SPECTRUM PLOT OF WORST VALUE

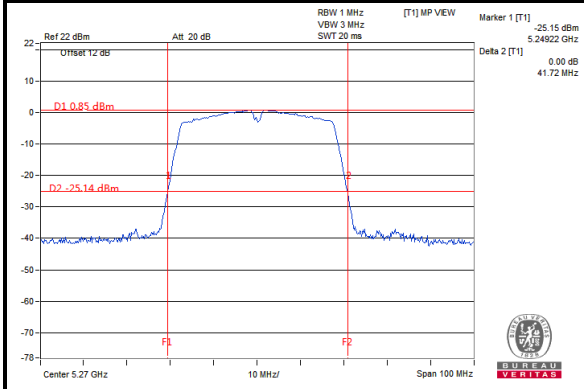
**802.11a**



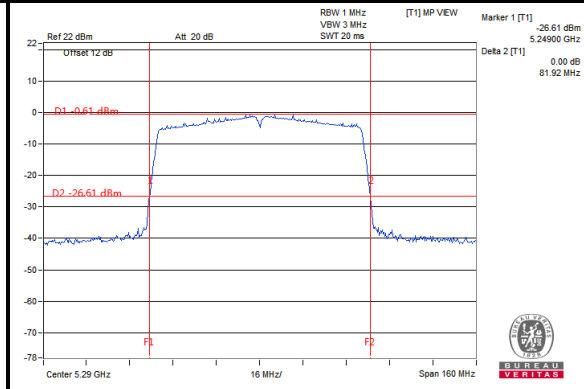
**802.11n 20MHz**



**802.11n 40MHz**



**802.11ac 80MHz**



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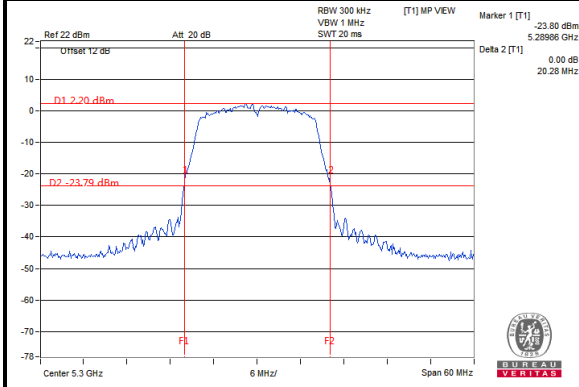
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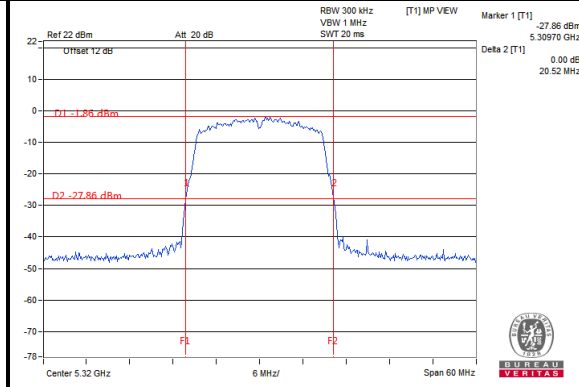
Chain 1

SPECTRUM PLOT OF WORST VALUE

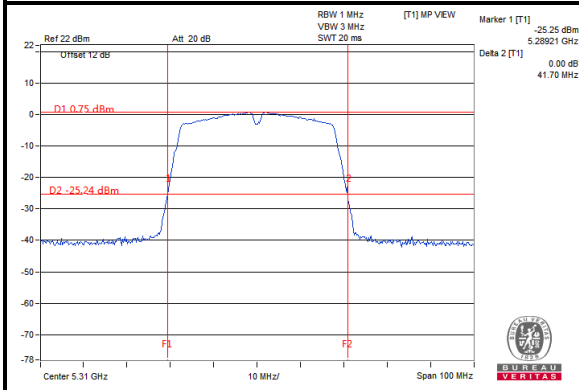
802.11a



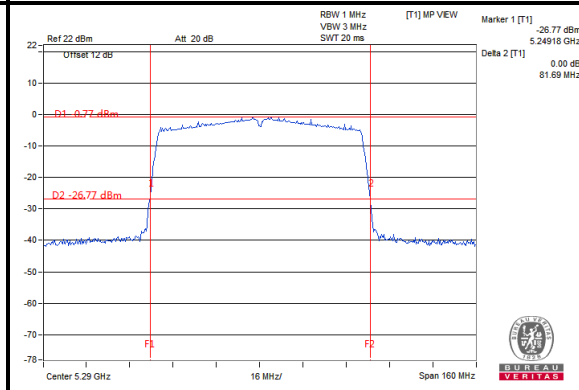
802.11n 20MHz



802.11n 40MHz



802.11ac 80MHz



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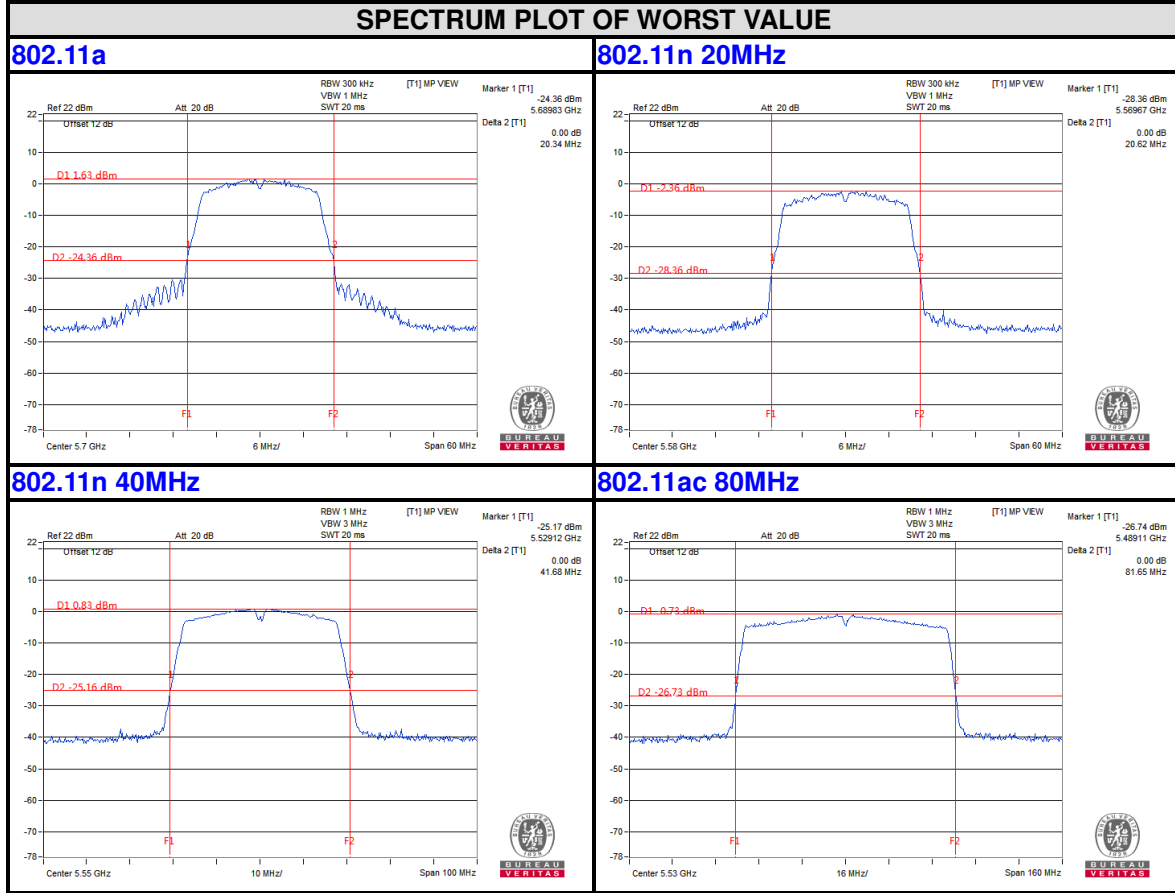


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Test Report No.: RF2104WDG0365-4

For 5470-5725MHz

Chain 0



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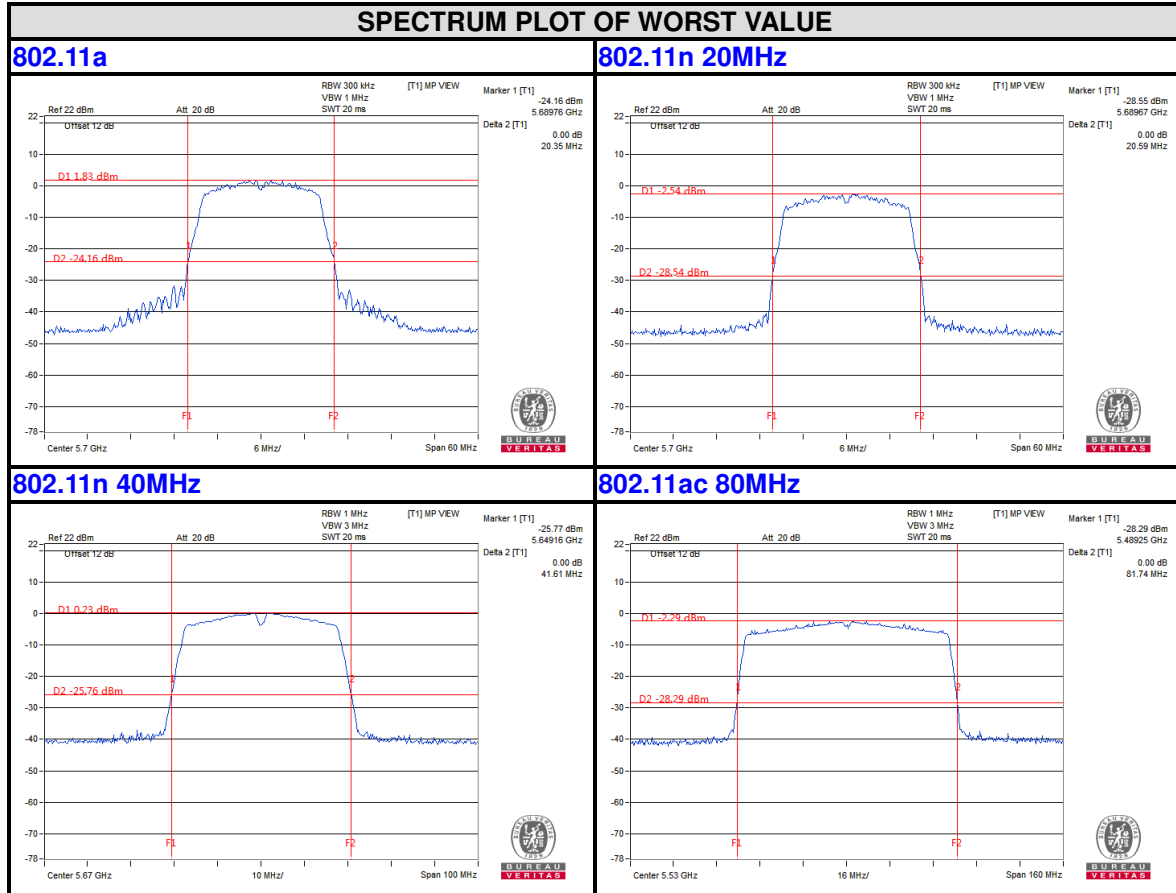
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Chain 1



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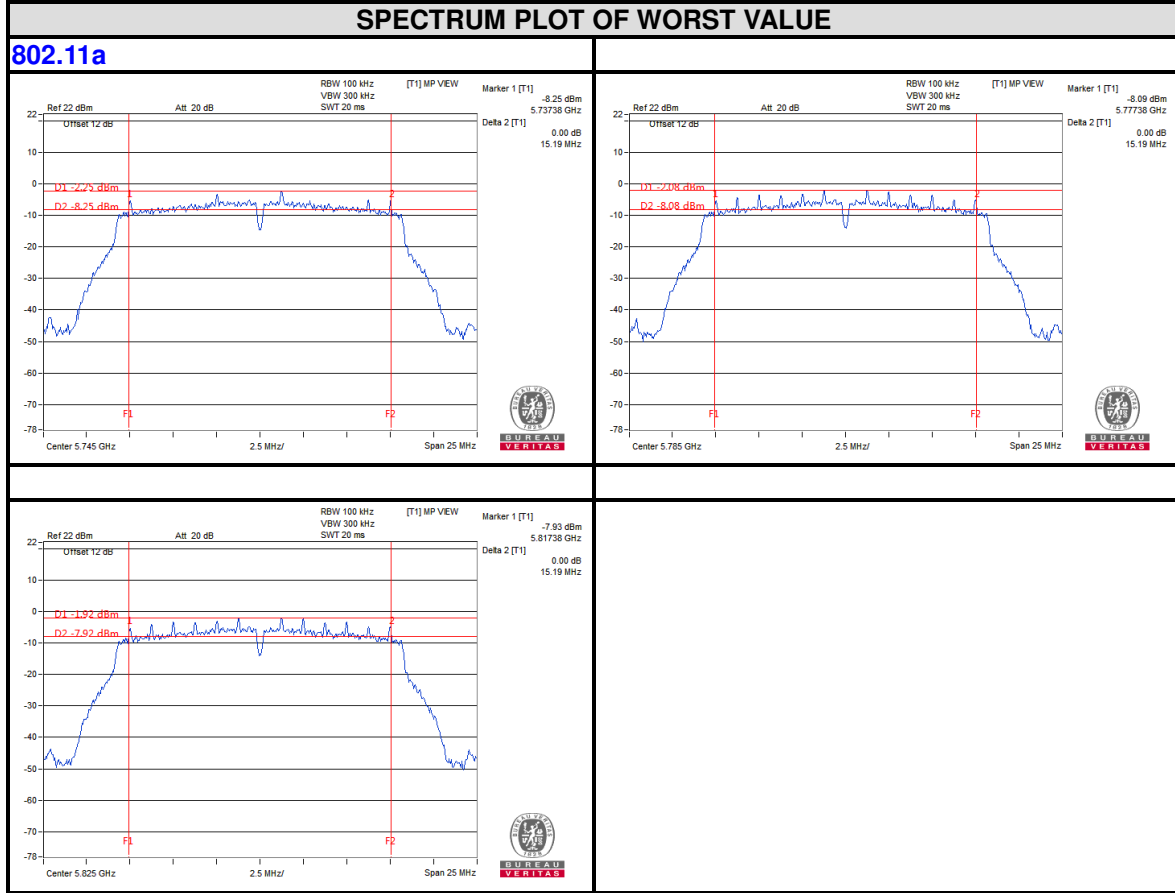
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BUREAU VERITAS

Test Report No.: RF2104WDG0365-4

6dB BANDWIDTH For 5725-5850MHz  
Chain 0



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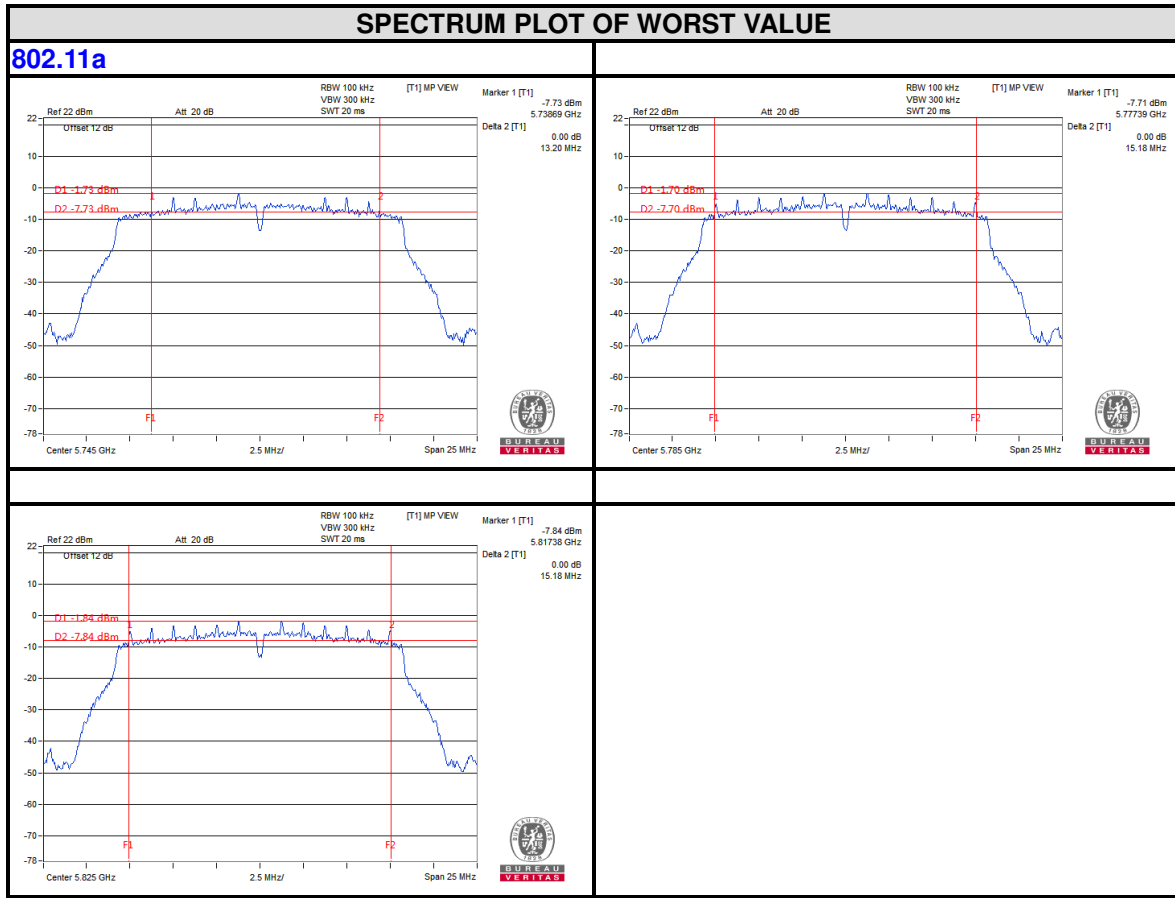




BUREAU VERITAS

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Chain 1



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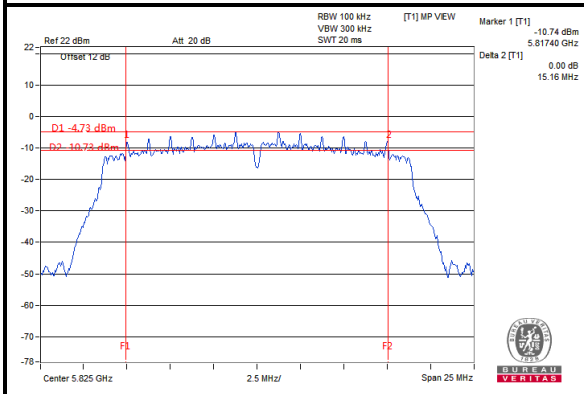
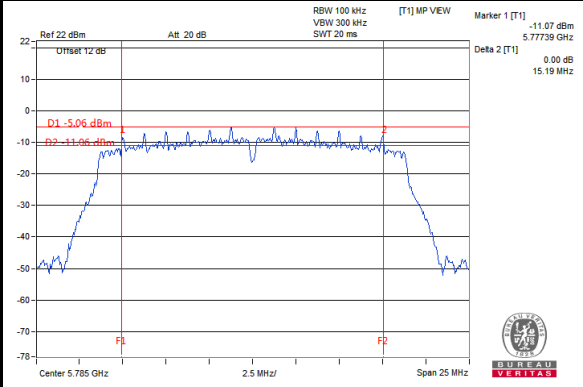
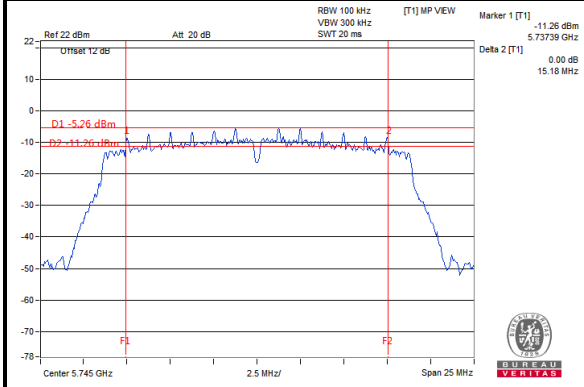
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Test Report No.: RF2104WDG0365-4

Chain 0

**SPECTRUM PLOT OF WORST VALUE**

**802.11n 20MHz**



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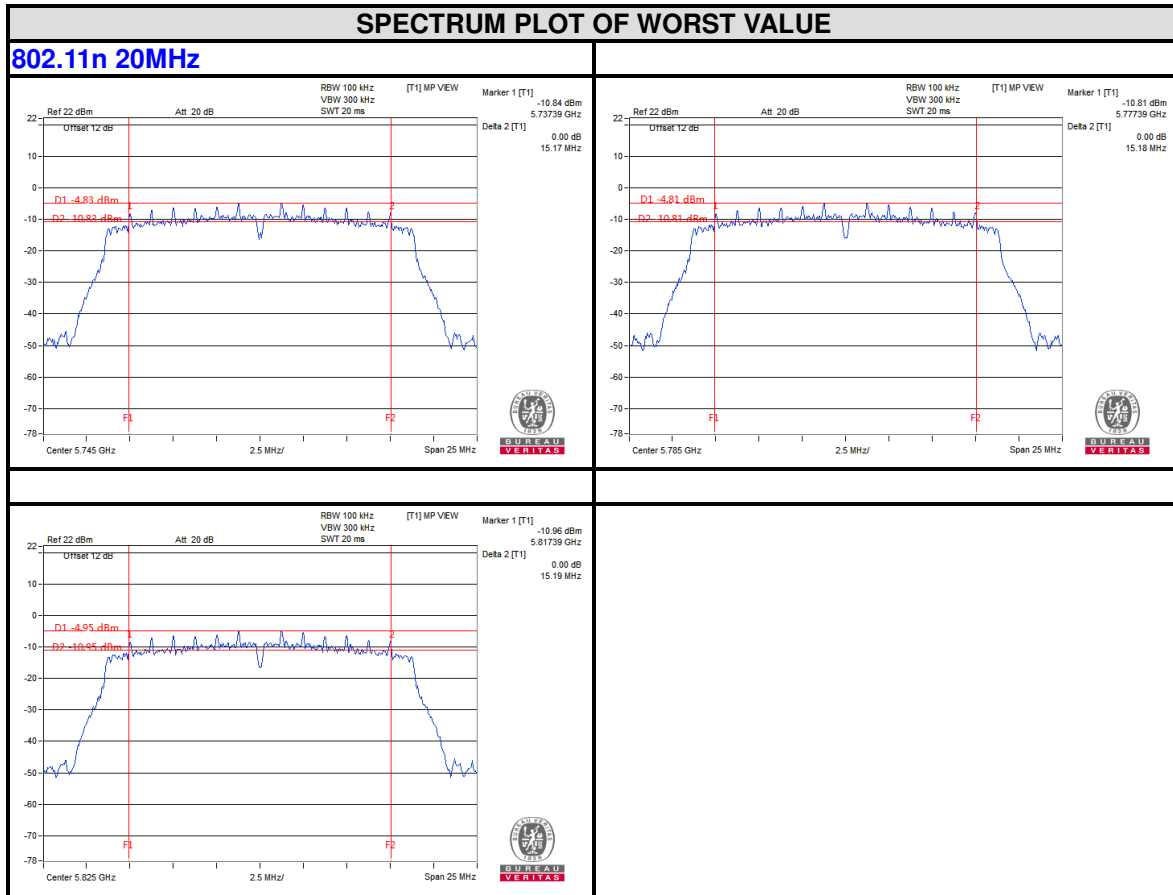
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Chain 1



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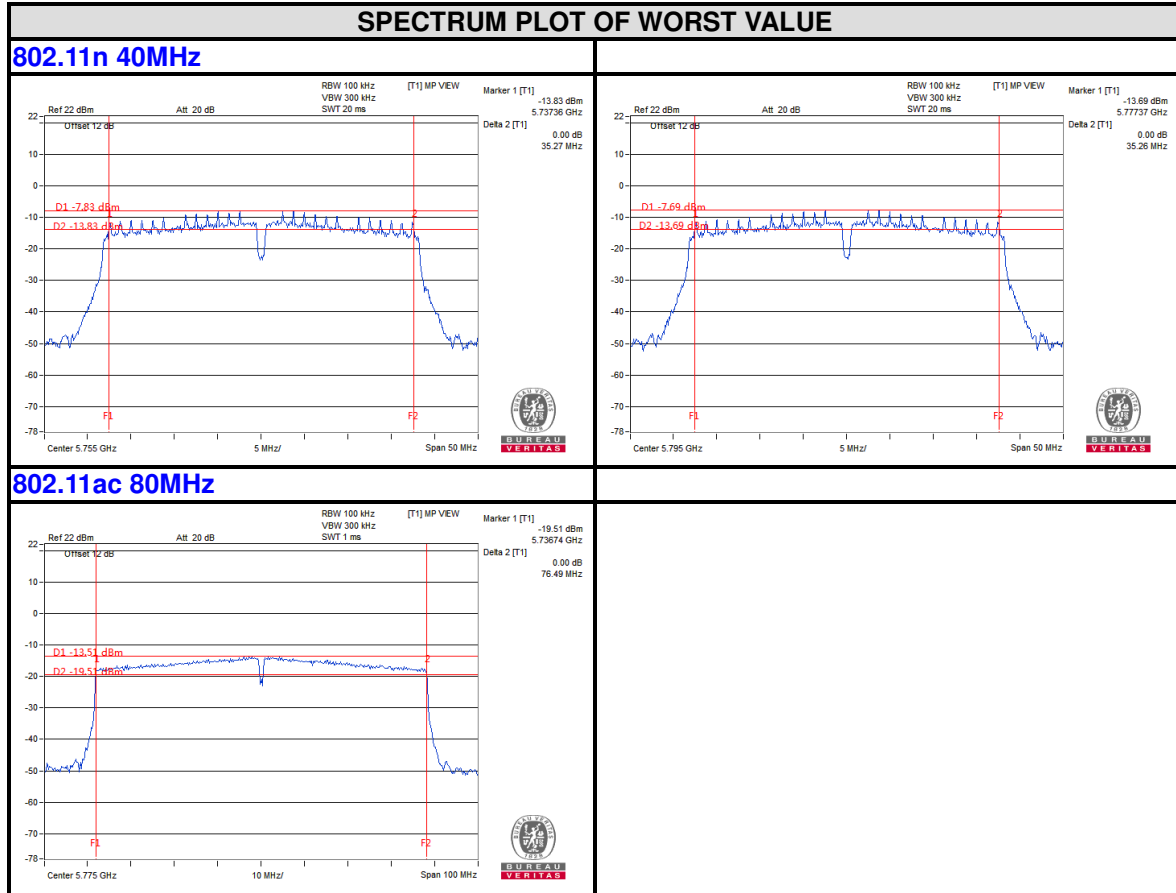
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Chain 0



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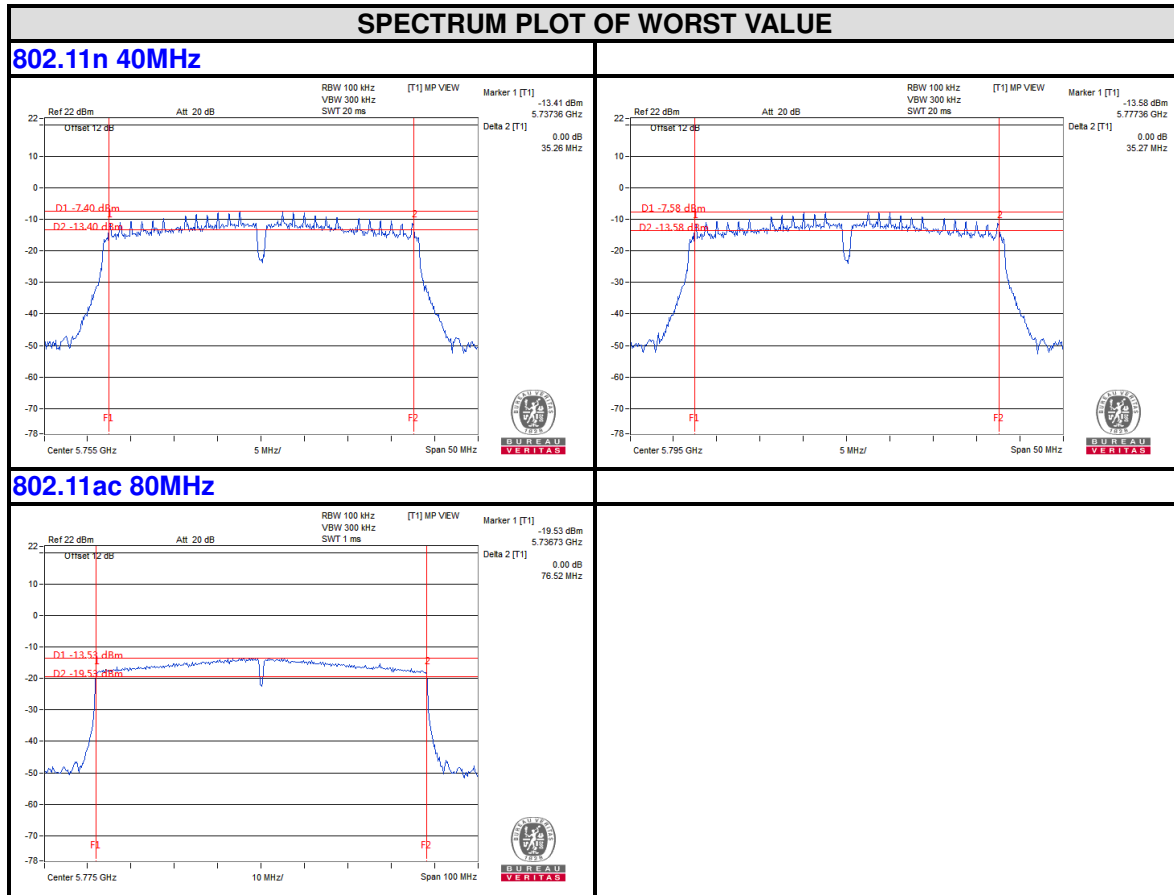
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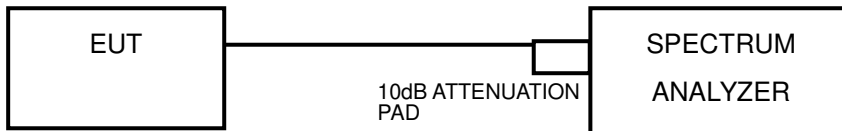


### 3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

#### 3.4.1 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

#### 3.4.2 TEST SETUP



#### 3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

#### 3.4.4 TEST PROCEDURES

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

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW =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 and add 10 log (1/duty cycle)



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

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW = 1 MHz, Detector = RMS
- 3) 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 and add 10 log (1/duty cycle)

**3.4.5 DEVIATION FROM TEST STANDARD**

No deviation.

**3.4.6 EUT OPERATING CONDITIONS**

Same as 3.3.6

**3.4.7 TEST RESULTS**For U-NII-1, U-NII-2A & U-NII-2C, For U-NII-3:  
802.11a

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	-2.13	-2.00	0.6124	0.6310	/	/	11.00	PASS
40	5200	-2.21	-2.03	0.6012	0.6266	/	/	11.00	PASS
48	5240	-2.13	-1.80	0.6124	0.6607	/	/	11.00	PASS
52	5260	-2.09	-1.69	0.6180	0.6776	/	/	11.00	PASS
60	5300	-1.91	-1.56	0.6442	0.6982	/	/	11.00	PASS
64	5320	-1.79	-1.57	0.6622	0.6966	/	/	11.00	PASS
100	5500	-1.79	-2.78	0.6622	0.5272	/	/	11.00	PASS
120	5600	-2.14	-2.87	0.6109	0.5164	/	/	11.00	PASS
140	5700	-2.16	-1.94	0.6081	0.6397	/	/	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)	MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1			
149	5745	-12.05	-11.64	-9.83	-9.42	/	30.00	PASS
157	5785	-11.96	-11.56	-9.74	-9.34	/	30.00	PASS
165	5825	-11.74	-11.80	-9.52	-9.58	/	30.00	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.





802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	-6.26	-6.46	0.2366	0.2259	0.4625	-3.35	10.38	PASS
40	5200	-6.23	-6.65	0.2382	0.2163	0.4545	-3.42	10.38	PASS
48	5240	-6.30	-6.25	0.2344	0.2371	0.4716	-3.26	10.38	PASS
52	5260	-6.11	-6.16	0.2449	0.2421	0.4870	-3.12	10.38	PASS
60	5300	-5.99	-6.13	0.2518	0.2438	0.4955	-3.05	10.38	PASS
64	5320	-5.86	-6.09	0.2594	0.2460	0.5055	-2.96	10.38	PASS
100	5500	-5.90	-7.35	0.2570	0.1841	0.4411	-3.55	10.38	PASS
120	5600	-6.23	-7.49	0.2382	0.1782	0.4165	-3.80	10.38	PASS
140	5700	-6.31	-6.45	0.2339	0.2265	0.4603	-3.37	10.38	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1

1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

For U-NII-2A

2. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

For U-NII-2C

3. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
149	5745	-15.42	-15.07	-13.20	-12.85	0.0997	-10.01	29.38	PASS
157	5785	-15.21	-15.04	-12.99	-12.82	0.1024	-9.90	29.38	PASS
165	5825	-15.05	-15.24	-12.83	-13.02	0.1020	-9.92	29.38	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-3

1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.



**802.11n (40MHz)**

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	-9.24	-9.86	0.1191	0.1033	0.2224	-6.53	10.38	PASS
46	5230	-9.22	-9.46	0.1197	0.1132	0.2329	-6.33	10.38	PASS
54	5270	-9.18	-9.33	0.1208	0.1167	0.2375	-6.24	10.38	PASS
62	5310	-9.09	-9.30	0.1233	0.1175	0.2408	-6.18	10.38	PASS
102	5510	-9.02	-10.61	0.1253	0.0869	0.2122	-6.73	10.38	PASS
118	5590	-9.18	-10.68	0.1208	0.0855	0.2063	-6.86	10.38	PASS
134	5670	-9.41	-9.87	0.1146	0.1030	0.2176	-6.62	10.38	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

**For U-NII-1**

1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2A**

2. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2C**

3. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
151	5755	-18.88	-18.64	-16.66	-16.42	0.0444	-13.53	29.38	PASS
159	5795	-18.85	-18.72	-16.63	-16.50	0.0441	-13.55	29.38	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

**For U-NII-3**

1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.



**802.11ac (80MHz)**

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	-11.26	-11.61	0.0748	0.0690	0.1438	-8.42	10.38	PASS
58	5290	-10.94	-11.06	0.0805	0.0783	0.1588	-7.99	10.38	PASS
106	5530	-11.07	-12.37	0.0782	0.0579	0.1361	-8.66	10.38	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

**For U-NII-1**

1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2A**

2. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

**For U-NII-2C**

3. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
155	5775	-22.03	-21.58	-19.81	-19.36	0.0220	-16.57	29.38	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

**For U-NII-3**

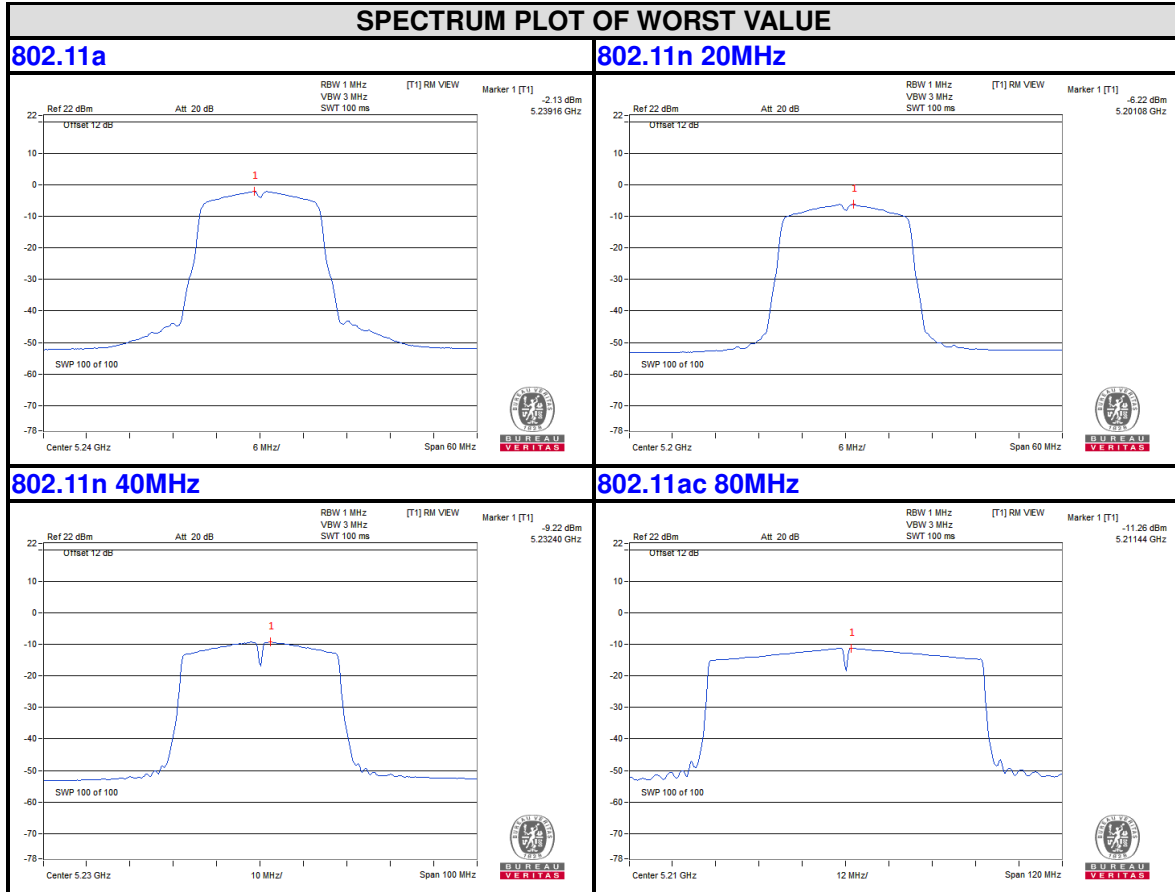
1. Directional gain=  $3.61 + 10 \cdot \log(2) = 6.62\text{dBi}$ , more than 6dBi, so the power density limit need to reduce 0.62dBi.



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PSD Test Plot  
BAND 1  
5150-5250MHz  
Chain 0



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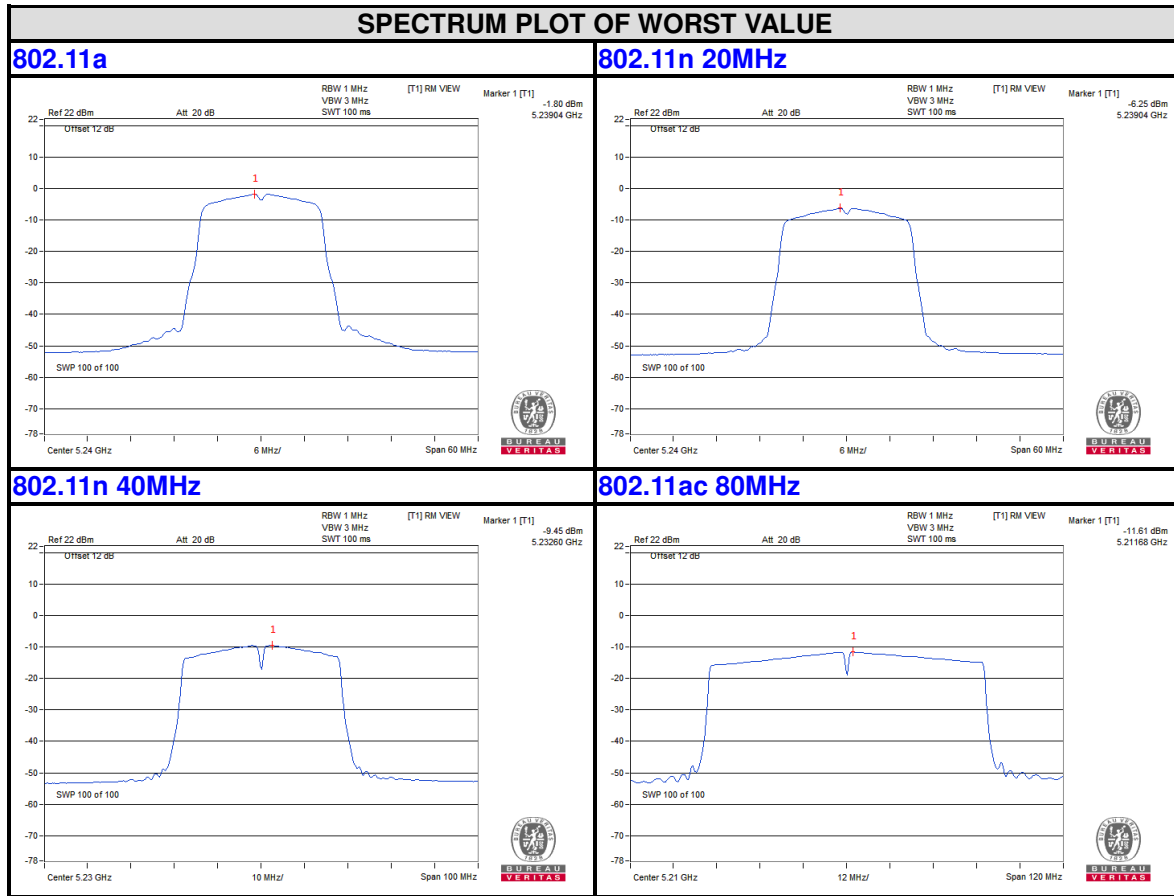
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Chain 1



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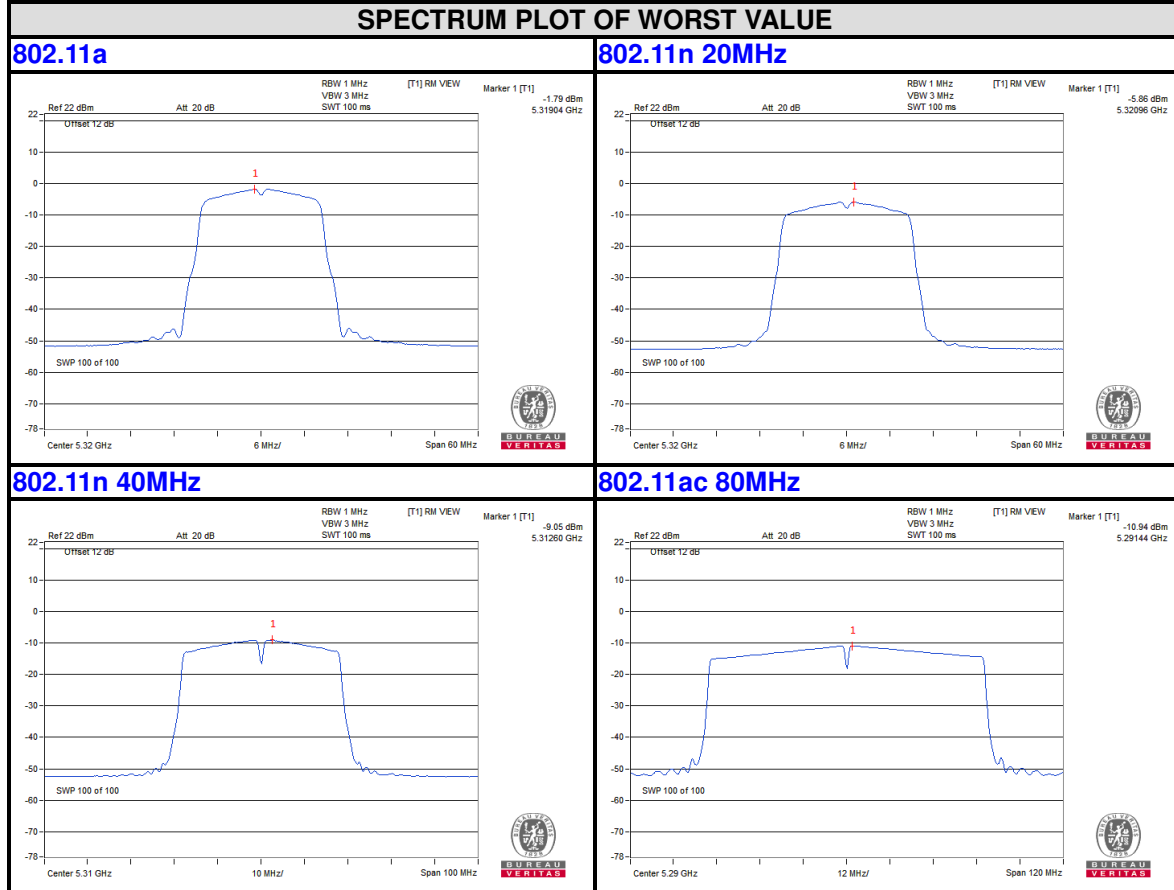
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**BAND 2**  
5250-5350MHz  
**Chain 0**



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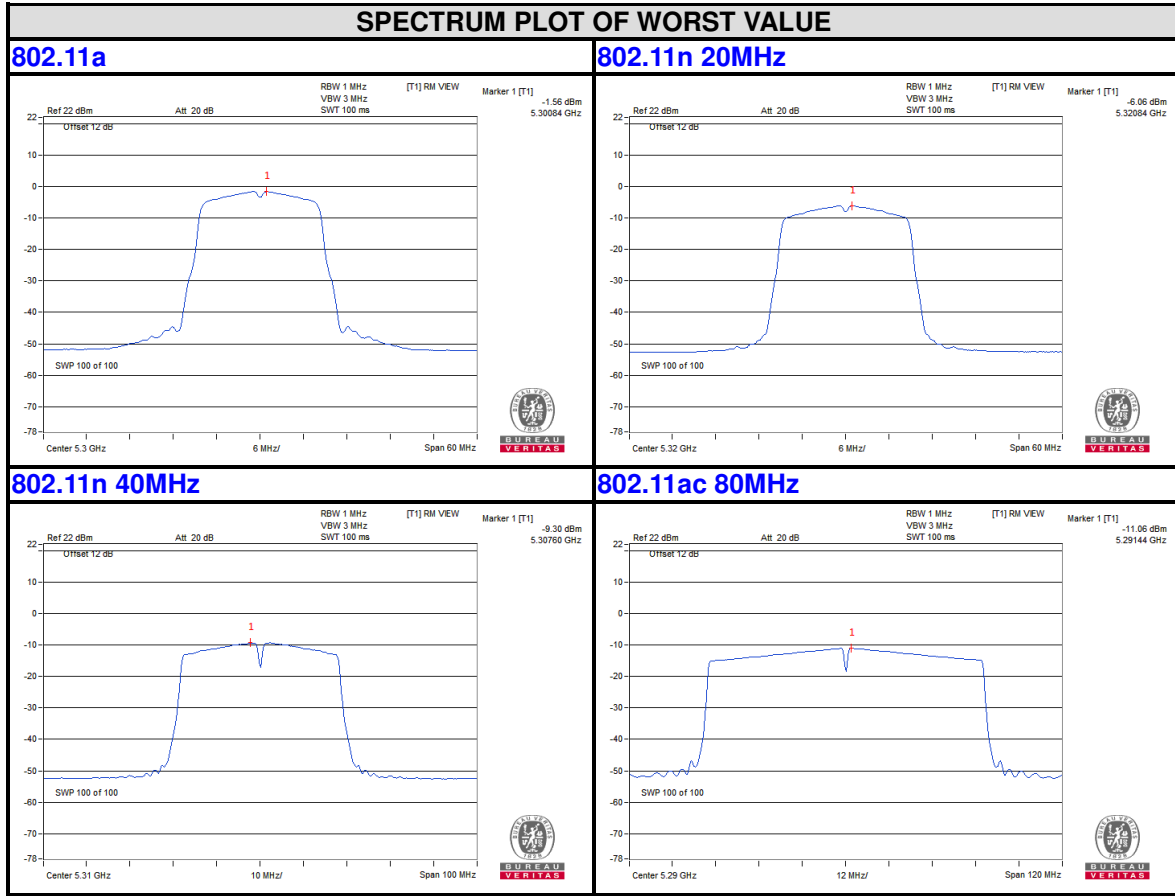
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**BUREAU VERITAS**

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Chain 1



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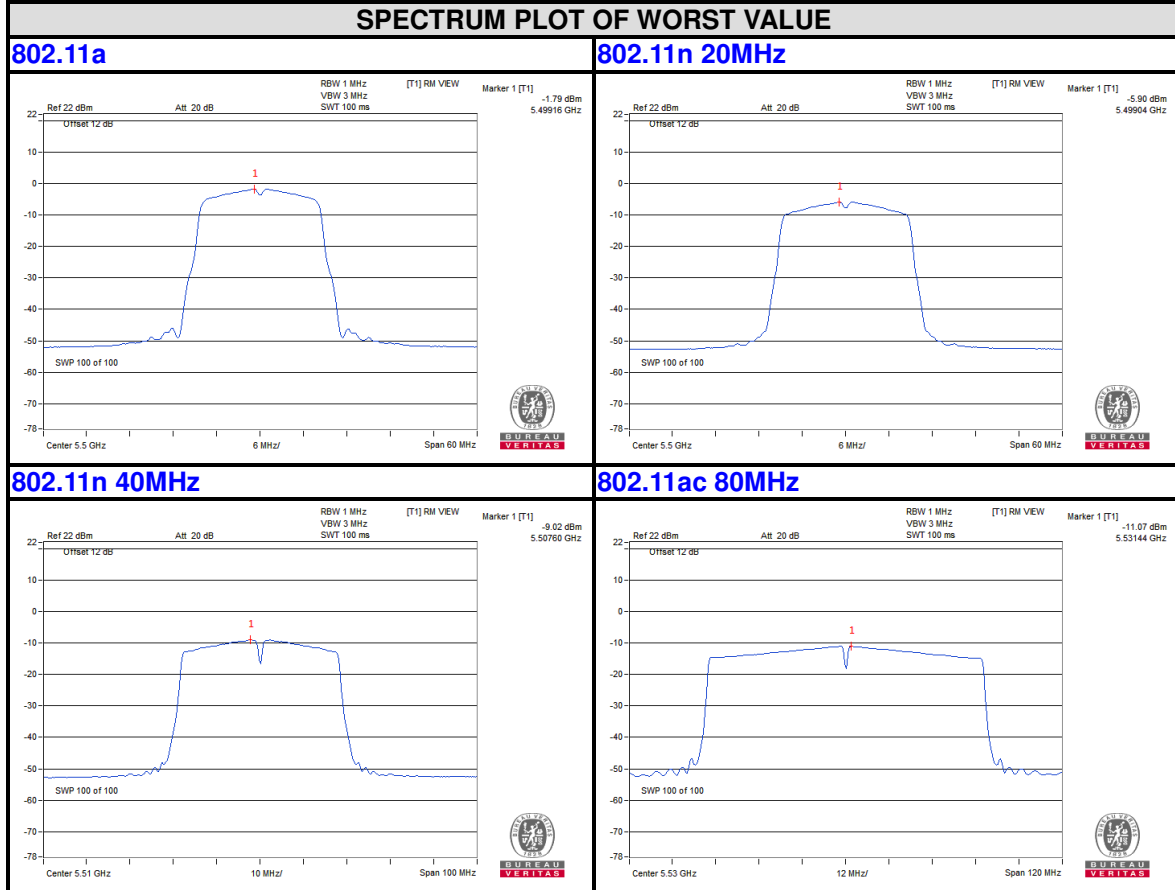
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**BAND 3**  
5470-5725MHz  
**Chain 0**



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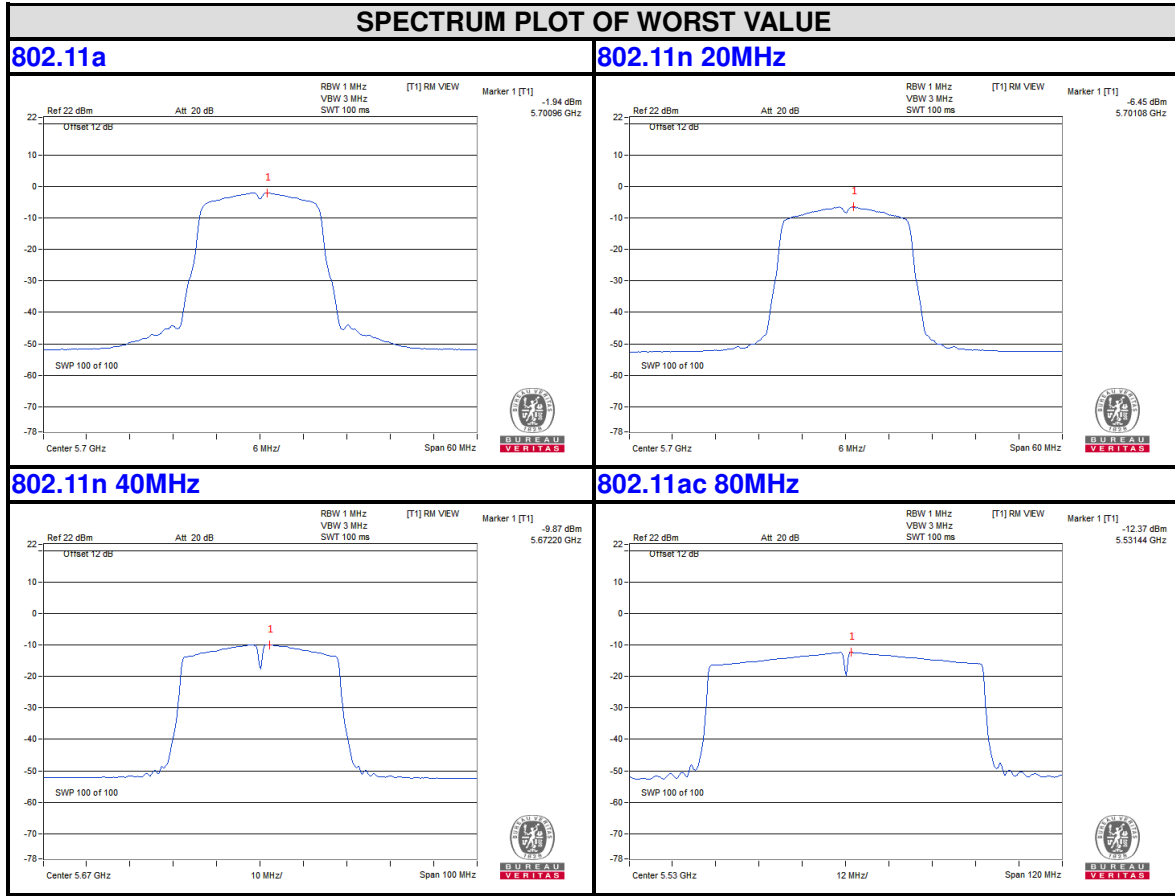




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Test Report No.: RF2104WDG0365-4

Chain 1

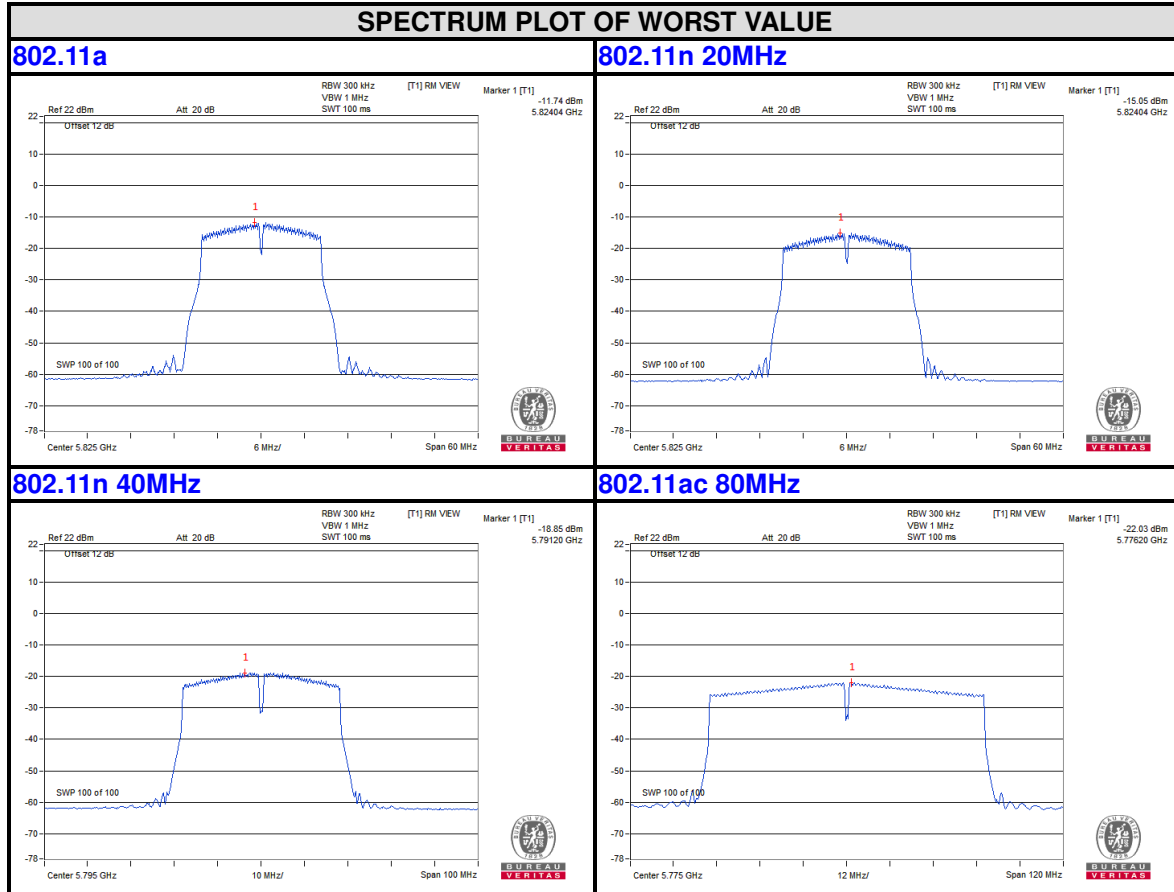




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**BAND4**  
5725-5850MHz  
**Chain 0**



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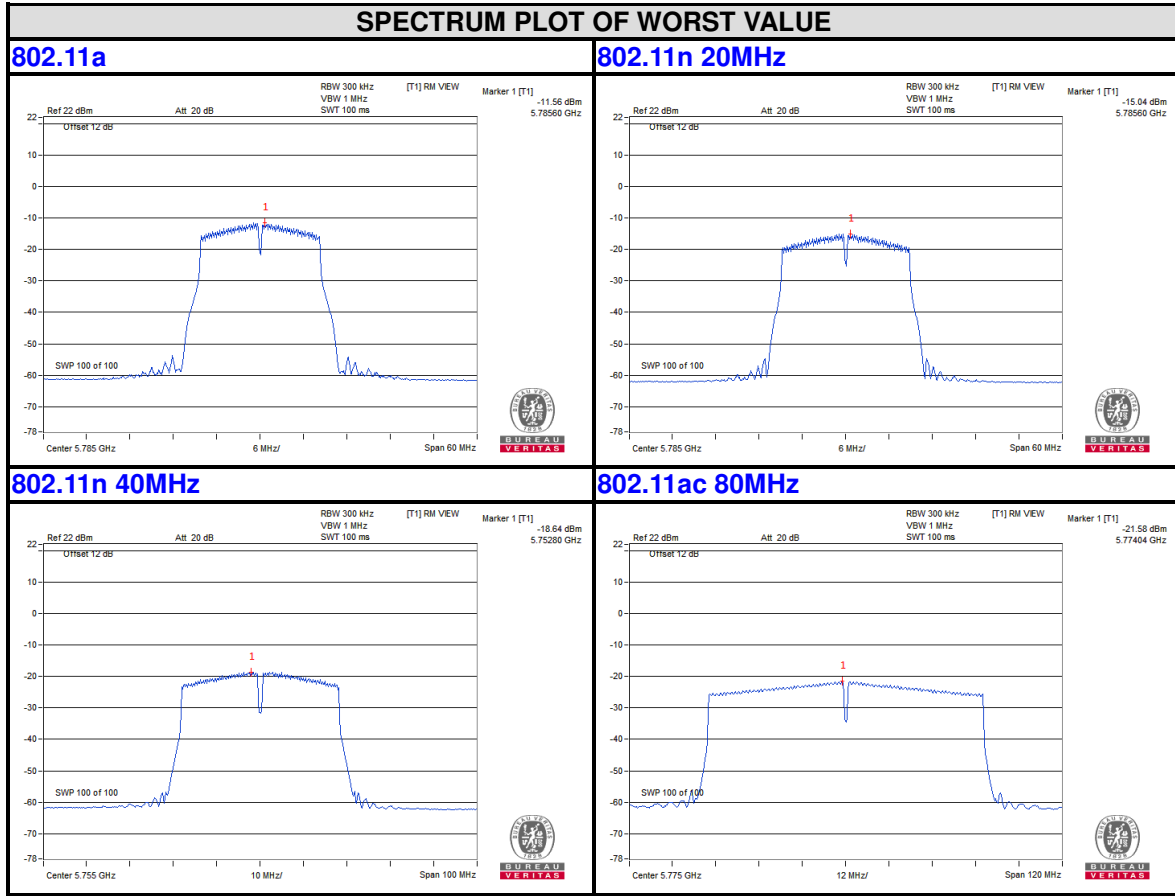
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Chain 1



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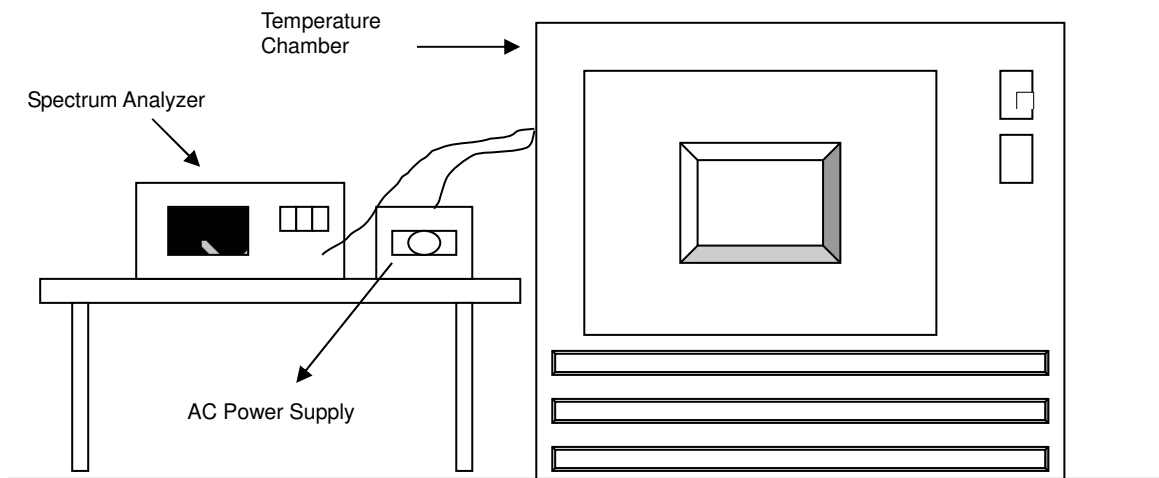


### 3.5 FREQUENCY STABILITY

#### 3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

#### 3.5.2 TEST SETUP



#### 3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.



### 3.5.4 TEST PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

### 3.5.6 EUT OPERATING CONDITION

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



**3.5.7 TEST RESULTS**

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.9873	-0.00025	5179.9865	-0.00026	5179.9847	-0.00030	5179.9852	-0.00029
40	120	5180.0229	0.00044	5180.0197	0.00038	5180.0198	0.00038	5180.0218	0.00042
30	120	5179.9901	-0.00019	5179.9908	-0.00018	5179.987	-0.00025	5179.9894	-0.00020
20	120	5180.0198	0.00038	5180.0215	0.00042	5180.018	0.00035	5180.0205	0.00040
10	120	5179.9976	-0.00005	5179.9968	-0.00006	5179.9979	-0.00004	5180.0018	0.00003
0	120	5180.0013	0.00003	5180.0013	0.00003	5179.9992	-0.00002	5180.0014	0.00003
-10	120	5180.0168	0.00032	5180.0177	0.00034	5180.0152	0.00029	5180.0176	0.00034
-20	120	5180.0025	0.00005	5180.0002	0.00000	5180.0019	0.00004	5179.9992	-0.00002
-30	120	5180.0221	0.00043	5180.0239	0.00046	5180.0223	0.00043	5180.0242	0.00047

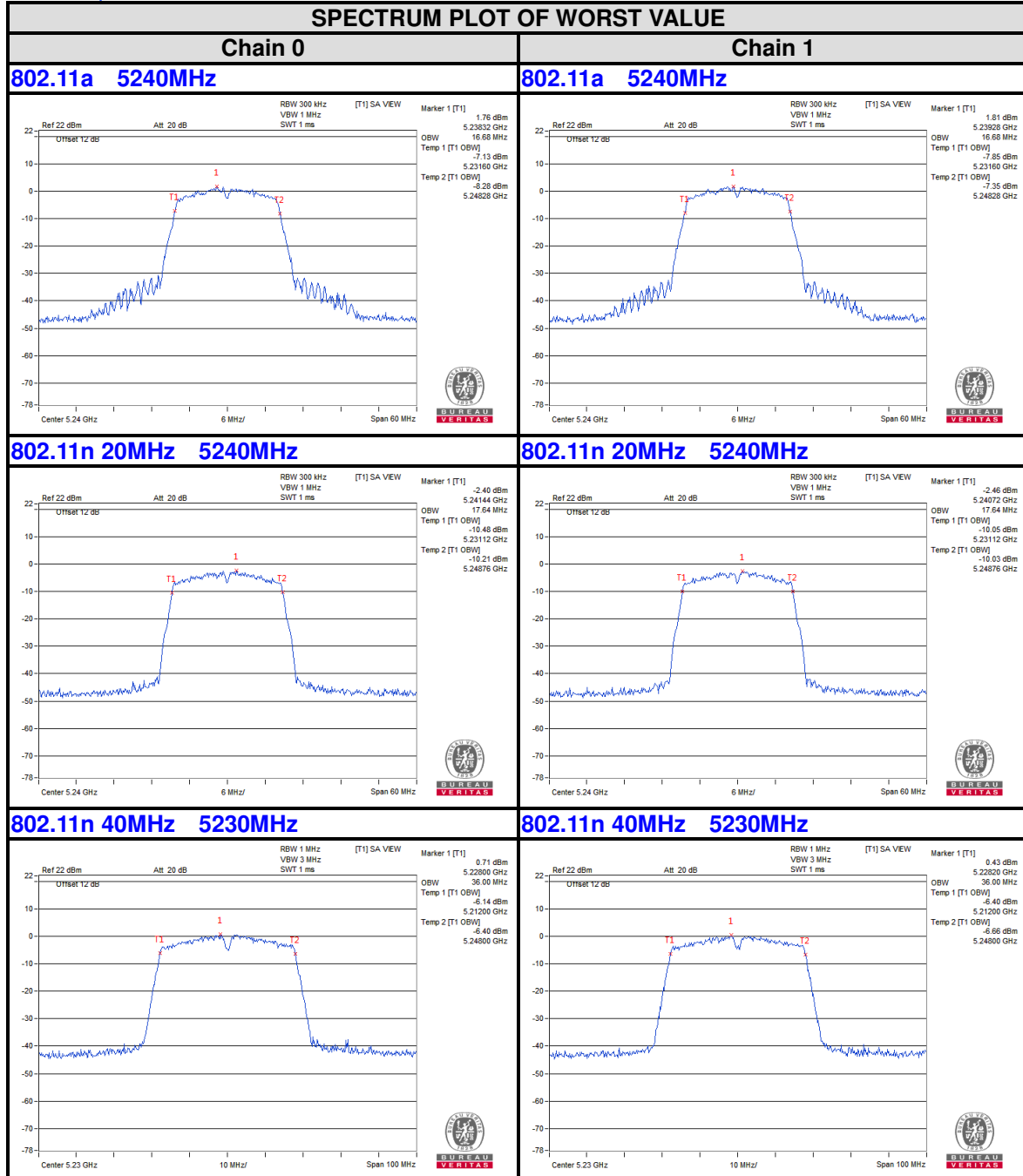
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.0191	0.00037	5180.0215	0.00042	5180.0189	0.00036	5180.0201	0.00039
	120	5180.0198	0.00038	5180.0215	0.00042	5180.018	0.00035	5180.0205	0.00040
	102	5180.0189	0.00036	5180.0217	0.00042	5180.0177	0.00034	5180.0204	0.00039



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**Test Report No.: RF2104WDG0365-4**

Band 1  
5150-5250MHz  
99% Occupied Bandwidth Without over Band 2



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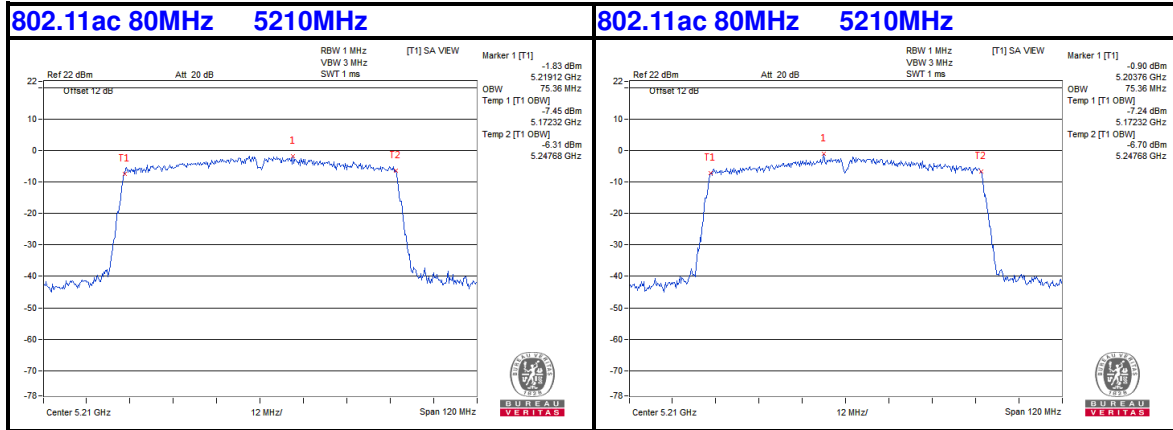
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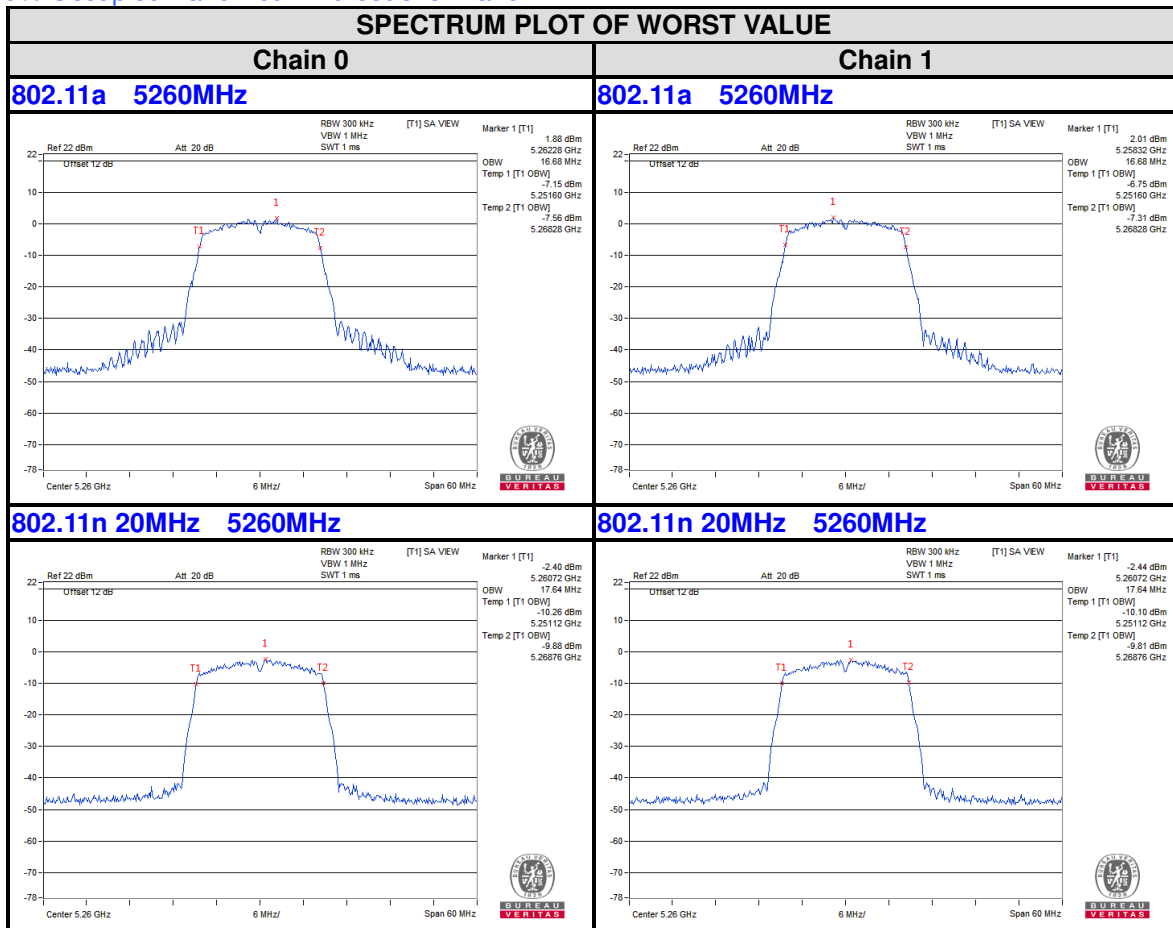


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Test Report No.: RF2104WDG0365-4



Band 2  
5250-5350MHz  
99% Occupied Bandwidth Without over Band 1



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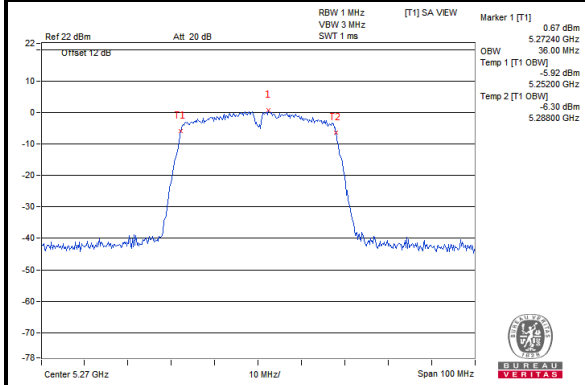




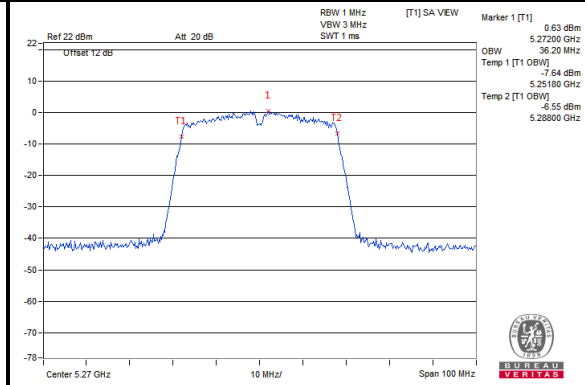
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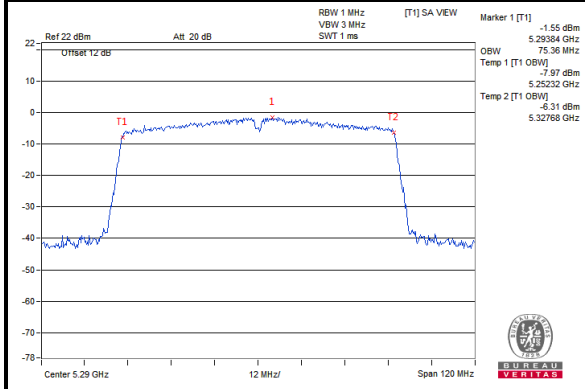
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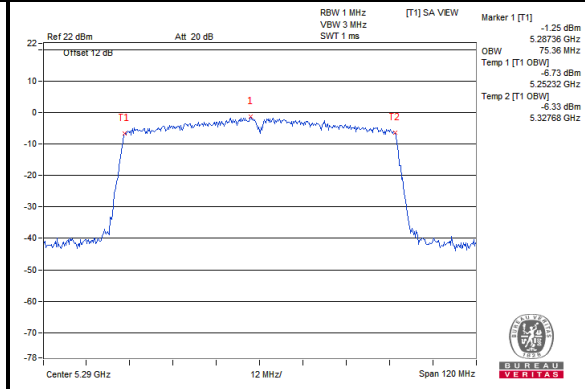
### 802.11n 40MHz 5270MHz



### 802.11ac 80MHz 5290MHz



### 802.11ac 80MHz 5290MHz



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## 4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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Test Report No.: RF2104WDG0365-4

## **5. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No modifications were made to the EUT by the lab during the test.

**---END---**