



Test Report No.: RF2010WDG0259-2



# TEST REPORT

Applicant	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA

Manufacturer or Supplier	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA
Product Name	SOUNDFORM™ CONNECT Audio Adapter with AirPlay 2
Brand Name	belkin
Model	AUZ002
Additional Model & Model Difference	N/A
Date of tests	Nov. 25, 2020 ~ Dec. 07, 2020

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**

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Approved by Glyn He  
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Date: Jan. 28, 2021

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2010WDG0259-2	Original release.	Jan. 28, 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	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	3.60dB
	1GHz ~ 18GHz	4.82dB
	18GHz ~ 40GHz	5.00dB

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</b>	SOUNDFORM™ CONNECT Audio Adapter with AirPlay 2
<b>BRAND</b>	belkin
<b>MODEL NO.</b>	AUZ002
<b>FCC ID</b>	K7SAUZ002
<b>POWER SUPPLY</b>	DC 5V 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 150Mbps 802.11ac: up to 433.3Mbps
<b>OPERATING FREQUENCY</b>	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
<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: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 2 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>	21.429mW for 5180 ~ 5240MHz (Maximum AVG Power) 15.959mW for 5260 ~ 5320MHz (Maximum AVG Power) 17.579mW for 5500 ~ 5700MHz (Maximum AVG Power) 26.546mW for 5745 ~ 5825MHz (Maximum AVG Power)
<b>ANTENNA TYPE</b>	5180 ~ 5240MHz: FPC antenna with 1.81dBi gain 5260 ~ 5320MHz: FPC antenna with 1.32dBi gain 5500 ~ 5700MHz: FPC antenna with 3.53dBi gain 5745 ~ 5825MHz: FPC antenna with 3.53dBi gain
<b>I/O PORTS</b>	Refer to user's manual
<b>CABLE SUPPLIED</b>	USB-A to USB-C cable: Shielded, detachable 1.2m

#### NOTES:

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



- Please refer to the EUT photo document (Reference No.: 2010WDG0259) for detailed product photo.
- The EUT incorporates a SISO function. Physically, the EUT provides 1 completed transmitter and 1 receiver.

MODULATION MODE	FUNCTION
802.11a	1TX/1RX
802.11n (HT20), 802.11ac (VHT20)	1TX/1RX
802.11n (HT40), 802.11ac (VHT40)	1TX/1RX
802.11ac (VHT80)	1TX/1RX

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.

- The EUT can be powered by adapter as list as attach:

ADAPTER	
BRAND:	N/A
MODEL:	S005CAU0500100
INPUT:	AC 100-240V, 50/60Hz, 200mA
OUTPUT:	5.0V=1000mA
DC LINE:	N/A



## 2.2 DESCRIPTION OF TEST MODES

### FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

### FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--





**FOR 5470 ~ 5725MHz**

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

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 802.11n (HT40), 802.11ac (VHT40):

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

2 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

**FOR 5725 ~ 5850MHz**

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

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	
A	√	√	√	√	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:**

- 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)
A	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, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	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)
A	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)
A	802.11a	5150-5250 5470-5725 5725-5850	36 to 48 100 to 140 149 to 165	36	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)
A	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, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	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(ADAPTER)	TESTED BY
RE<1G	24deg. C, 55%RH	DC 5V from Adapter	Jelly
RE≥1G	24deg. C, 55%RH	DC 5V from Adapter	Jelly
PLC	20deg. C, 56%RH	DC 5V from Adapter	Ming Bai
APCM	20deg. C, 55%RH	DC 5V from Adapter	Daniel



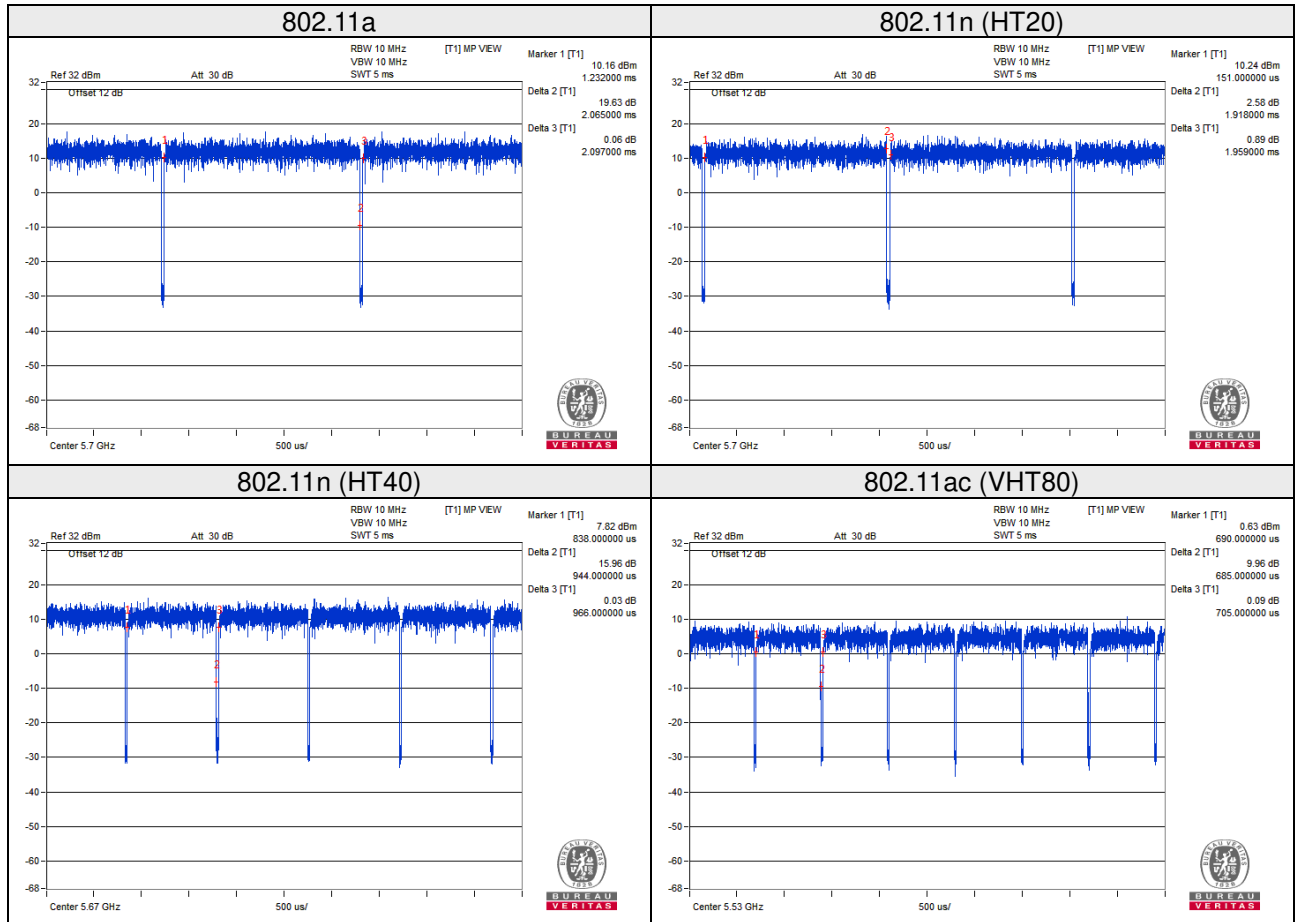
### 2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 2.065/2.097 = 0.985, Duty factor =  $10 \cdot \log(1/0.985) = 0.066$

802.11n (HT20): Duty cycle = 1.918/1.959 = 0.979, Duty factor =  $10 \cdot \log(1/0.979) = 0.09$

802.11n (HT40): Duty cycle = 0.944/0.966 = 0.977, Duty factor =  $10 \cdot \log(1/0.977) = 0.101$

802.11ac (VHT80): Duty cycle = 0.685/0.705 = 0.972, Duty factor =  $10 \cdot \log(1/0.972) = 0.123$





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## 2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together without other necessary accessories or support units.

## 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)**

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

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



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### 3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 17,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 13, 21
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 29,21
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 14,21
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	May 29,21
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 29,21
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	May 09, 21
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22,21
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	May 08,21
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Mar. 03,21
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.

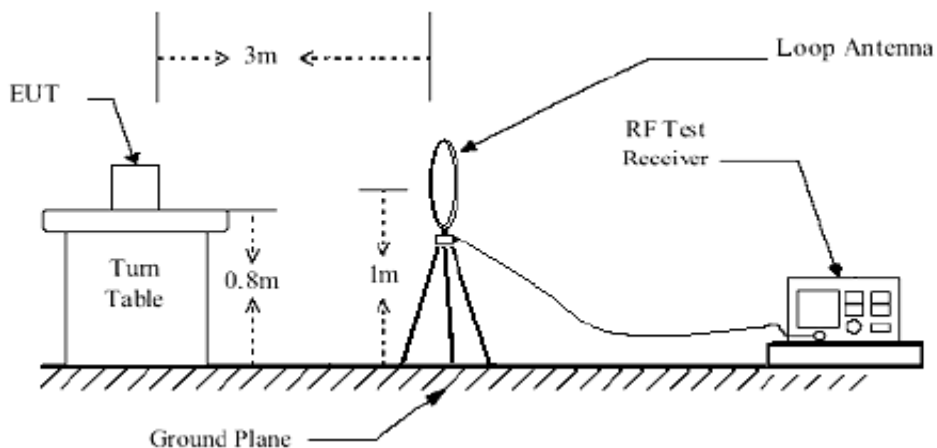
### 3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

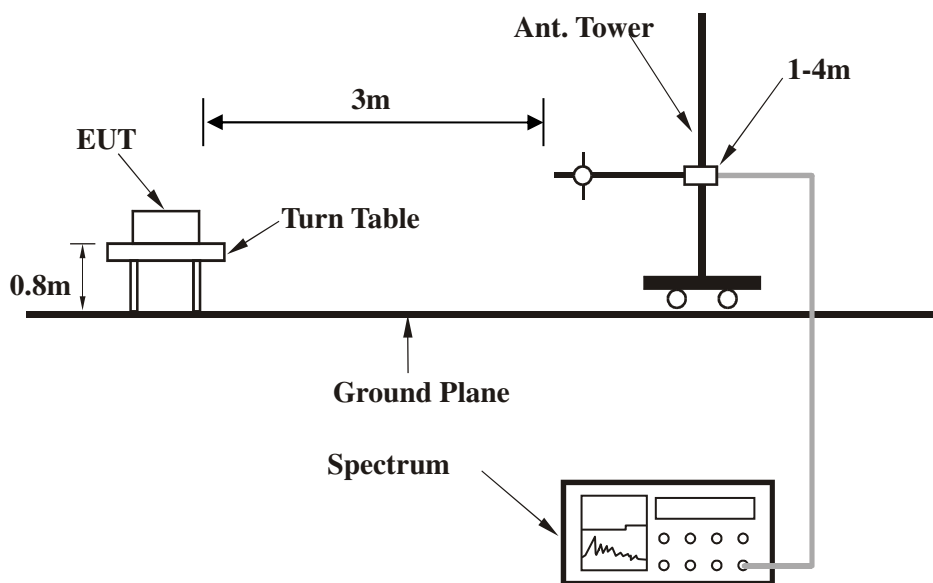


### 3.1.6 TEST SETUP

#### Below 30MHz



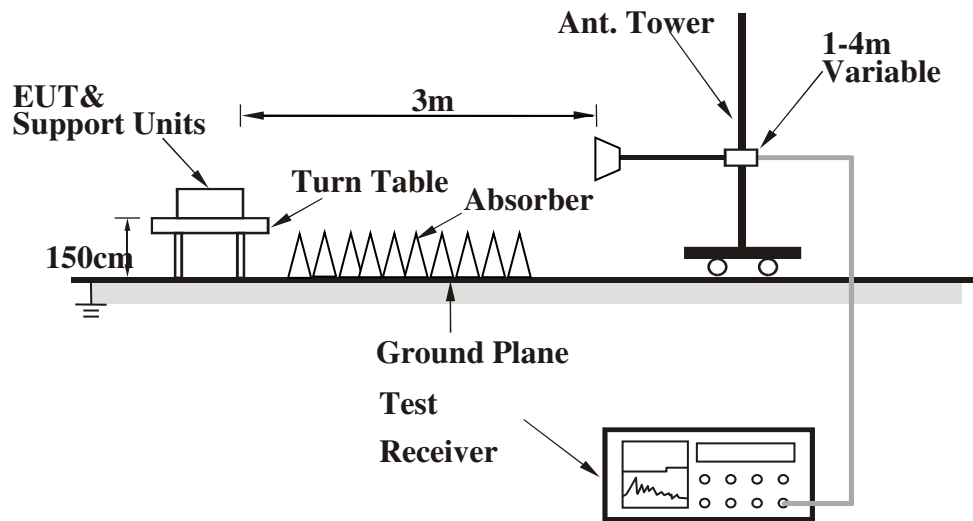
#### Below 1GHz test setup



**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).

### 3.1.7 EUT OPERATING CONDITION

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



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**Test Report No.: RF2010WDG0259-2**

### 3.1.8 TEST RESULTS

#### BELOW 1GHz WORST-CASE DATA

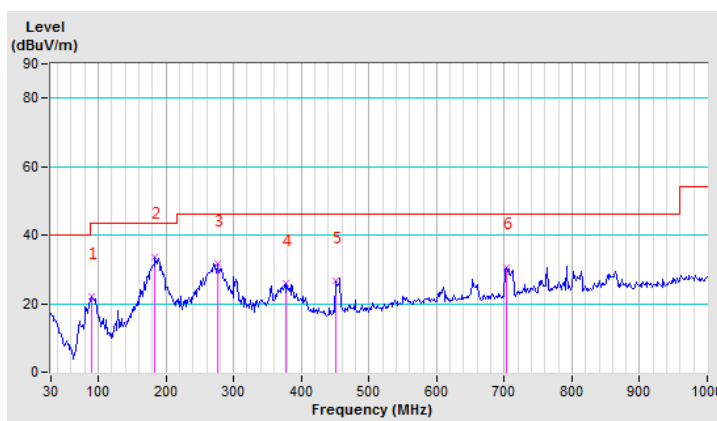
##### 802.11a

<b>CHANNEL</b>	TX Channel 36	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	90.62	22.06 QP	43.50	-21.44	1.00 H	306	42.91	-20.85
2	<b>183.89</b>	<b>33.73 QP</b>	<b>43.50</b>	<b>-9.77</b>	<b>1.00 H</b>	<b>195</b>	<b>52.83</b>	<b>-19.10</b>
3	275.61	31.48 QP	46.00	-14.52	1.00 H	207	46.96	-15.48
4	376.65	25.84 QP	46.00	-20.16	1.00 H	218	37.86	-12.02
5	451.27	26.75 QP	46.00	-19.25	1.00 H	229	37.29	-10.54
6	703.09	30.68 QP	46.00	-15.32	1.00 H	249	36.10	-5.42

#### 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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





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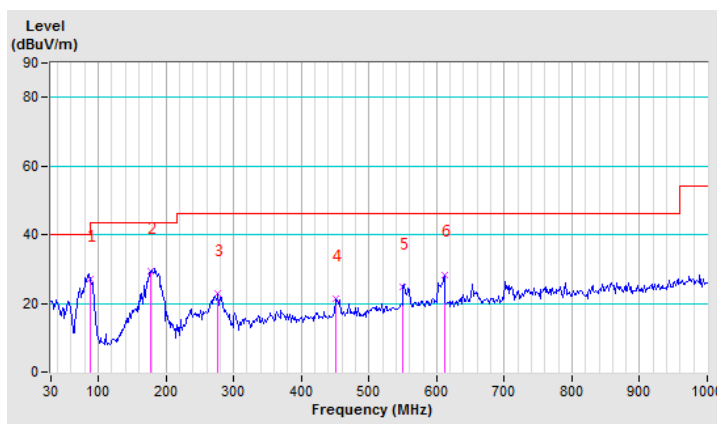
**Test Report No.: RF2010WDG0259-2**

<b>CHANNEL</b>	TX Channel 36	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	9KHz ~ 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	88.00	27.00 QP	40.00	-13.00	1.00 V	61	48.07	-21.07
2	177.68	29.26 QP	43.50	-14.24	1.00 V	46	48.07	-18.81
3	277.16	22.98 QP	46.00	-23.02	1.00 V	34	38.42	-15.44
4	451.27	21.40 QP	46.00	-24.60	1.00 V	23	31.94	-10.54
5	550.75	24.62 QP	46.00	-21.38	1.00 V	12	32.41	-7.79
6	611.38	28.37 QP	46.00	-17.63	1.00 V	2	35.11	-6.74

**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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





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Test Report No.: RF2010WDG0259-2

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	5142.34	68.52 PK	74.00	-5.48	1.00 H	252	59.73	8.79
2	5142.34	47.08 AV	54.00	-6.92	1.00 H	252	38.29	8.79
3	5150.00	71.84 PK	74.00	-2.16	1.00 H	252	63.04	8.80
4	5150.00	49.25 AV	54.00	-4.75	1.00 H	252	40.45	8.80
5	*5180.00	109.74 PK			1.00 H	252	100.92	8.82
6	*5180.00	98.26 AV			1.00 H	252	89.44	8.82
7	#10360.00	52.64 PK	68.20	-15.56	1.00 H	0	42.94	9.70
8	15540.00	56.34 PK	74.00	-17.66	1.00 H	0	42.85	13.49
9	15540.00	41.24 AV	54.00	-12.76	1.00 H	0	27.75	13.49

**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	5139.42	60.14 PK	74.00	-13.86	1.04 V	185	51.35	8.79
2	5139.42	41.05 AV	54.00	-12.95	1.04 V	185	32.26	8.79
3	5150.00	62.78 PK	74.00	-11.22	1.04 V	185	53.98	8.80
4	5150.00	42.62 AV	54.00	-11.38	1.04 V	185	33.82	8.80
5	*5180.00	103.93 PK			1.04 V	185	95.11	8.82
6	*5180.00	93.21 AV			1.04 V	185	84.39	8.82
7	#10360.00	52.64 PK	68.20	-15.56	4.00 V	N/A	42.94	9.70
8	15540.00	56.34 PK	74.00	-17.66	1.00 V	0	42.85	13.49
9	15540.00	41.58 AV	54.00	-12.42	1.00 V	0	28.09	13.49

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

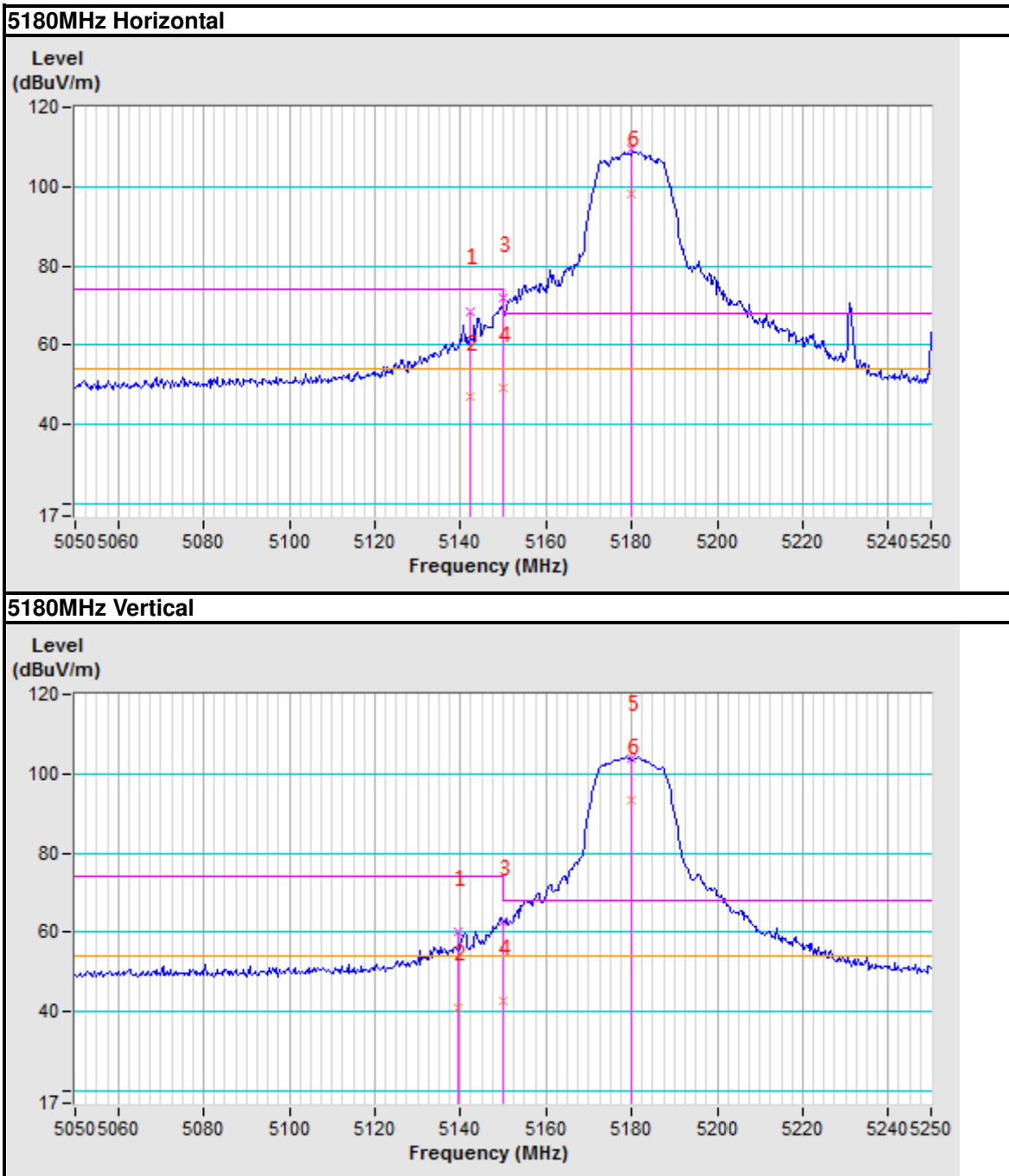
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### Band edge Plot





<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	51.12 PK	74.00	-22.88	1.00 H	152	42.33	8.79
2	5145.00	39.67 AV	54.00	-14.33	1.00 H	152	30.88	8.79
3	5150.00	49.87 PK	74.00	-24.13	1.00 H	152	41.07	8.80
4	5150.00	39.25 AV	54.00	-14.75	1.00 H	152	30.45	8.80
5	*5200.00	106.73 PK			1.00 H	152	97.88	8.85
6	*5200.00	96.22 AV			1.00 H	152	87.37	8.85
7	#10400.00	39.50 PK	68.20	-28.70	1.00 H	0	21.50	18.00
8	15600.00	48.60 PK	74.00	-25.40	1.00 H	0	24.39	24.21
9	15600.00	32.10 AV	54.00	-21.90	1.00 H	0	7.89	24.21

**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	51.35 PK	74.00	-22.65	1.00 V	0	42.56	8.79
2	5145.00	39.21 AV	54.00	-14.79	1.00 V	0	30.42	8.79
3	5150.00	49.32 PK	74.00	-24.68	1.00 V	62	40.52	8.80
4	5150.00	39.60 AV	54.00	-14.40	1.00 V	62	30.80	8.80
5	*5200.00	105.62 PK			1.00 V	62	96.77	8.85
6	*5200.00	95.84 AV			1.00 V	62	86.99	8.85
7	#10400.00	44.36 PK	68.20	-23.84	1.00 V	0	26.36	18.00
8	15600.00	46.30 PK	74.00	-27.70	1.00 V	0	22.09	24.21
9	15600.00	32.80 AV	54.00	-21.20	1.00 V	0	8.59	24.21

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.





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Test Report No.: RF2010WDG0259-2

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	5146.00	50.21 PK	74.00	-23.79	1.00 H	227	41.42	8.79
2	5146.00	38.12 AV	54.00	-15.88	1.00 H	227	29.33	8.79
3	5150.00	48.67 PK	74.00	-25.33	1.00 H	227	39.87	8.80
4	5150.00	37.12 AV	54.00	-16.88	1.00 H	227	28.32	8.80
5	*5240.00	100.31 PK			1.00 H	227	91.43	8.88
6	*5240.00	89.75 AV			1.00 H	227	80.87	8.88
7	5350.00	50.21 PK	74.00	-23.79	1.00 H	227	41.23	8.98
8	5350.00	37.60 AV	54.00	-16.40	1.00 H	227	28.62	8.98
9	5455.00	52.14 PK	74.00	-21.86	1.00 H	227	43.07	9.07
10	5455.00	39.27 AV	54.00	-14.73	1.00 H	227	30.20	9.07
11	#10480.00	49.53 PK	68.20	-18.67	1.00 H	0	31.16	18.37
12	15720.00	51.63 PK	74.00	-22.37	1.00 H	0	27.20	24.43
13	15720.00	34.14 AV	54.00	-19.86	1.00 H	0	9.71	24.43

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	5146.00	48.64 PK	74.00	-25.36	1.00 V	109	39.85	8.79
2	5146.00	37.86 AV	54.00	-16.14	1.00 V	109	29.07	8.79
3	5150.00	49.53 PK	74.00	-24.47	1.00 V	109	40.73	8.80
4	5150.00	37.43 AV	54.00	-16.57	1.00 V	109	28.63	8.80
5	*5240.00	101.83 PK			1.00 V	109	92.95	8.88
6	*5240.00	90.07 AV			1.00 V	109	81.19	8.88
7	5350.00	51.15 PK	74.00	-22.85	1.00 V	109	42.17	8.98
8	5350.00	38.80 AV	54.00	-15.20	1.00 V	109	29.82	8.98
9	5357.00	51.14 PK	74.00	-22.86	1.00 V	109	42.15	8.99
10	5357.00	37.60 AV	54.00	-16.40	1.00 V	109	28.61	8.99
11	#10480.00	50.34 PK	68.20	-17.86	1.00 V	0	31.97	18.37
12	15720.00	51.23 PK	74.00	-22.77	1.00 V	0	26.80	24.43
13	15720.00	34.95 AV	54.00	-19.05	1.00 V	0	10.52	24.43

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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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	5139.74	62.96 PK	74.00	-11.04	1.14 H	258	54.17	8.79
2	5139.74	45.88 AV	54.00	-8.12	1.14 H	258	37.09	8.79
3	5150.00	62.96 PK	74.00	-11.04	1.14 H	258	54.16	8.80
4	5150.00	48.37 AV	54.00	-5.63	1.14 H	258	39.57	8.80
5	*5180.00	109.52 PK			1.14 H	258	100.70	8.82
6	*5180.00	98.46 AV			1.14 H	258	89.64	8.82
7	#10360.00	51.36 PK	68.20	-16.84	1.00 H	0	33.55	17.81
8	15540.00	50.39 PK	74.00	-23.61	1.00 H	0	26.30	24.09
9	15540.00	34.18 AV	54.00	-19.82	1.00 H	0	10.09	24.09

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	5148.71	57.41 PK	74.00	-16.59	1.00 V	206	48.61	8.80
2	5148.71	41.42 AV	54.00	-12.58	1.00 V	206	32.62	8.80
3	5150.00	56.71 PK	74.00	-17.29	1.00 V	206	47.91	8.80
4	5150.00	41.68 AV	54.00	-12.32	1.00 V	206	32.88	8.80
5	*5180.00	103.04 PK			1.00 V	206	94.22	8.82
6	*5180.00	92.01 AV			1.00 V	206	83.19	8.82
7	#10360.00	49.68 PK	68.20	-18.52	1.00 V	0	31.87	17.81
8	15540.00	51.36 PK	74.00	-22.64	1.00 V	0	27.27	24.09
9	15540.00	35.89 AV	54.00	-18.11	1.00 V	0	11.80	24.09

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

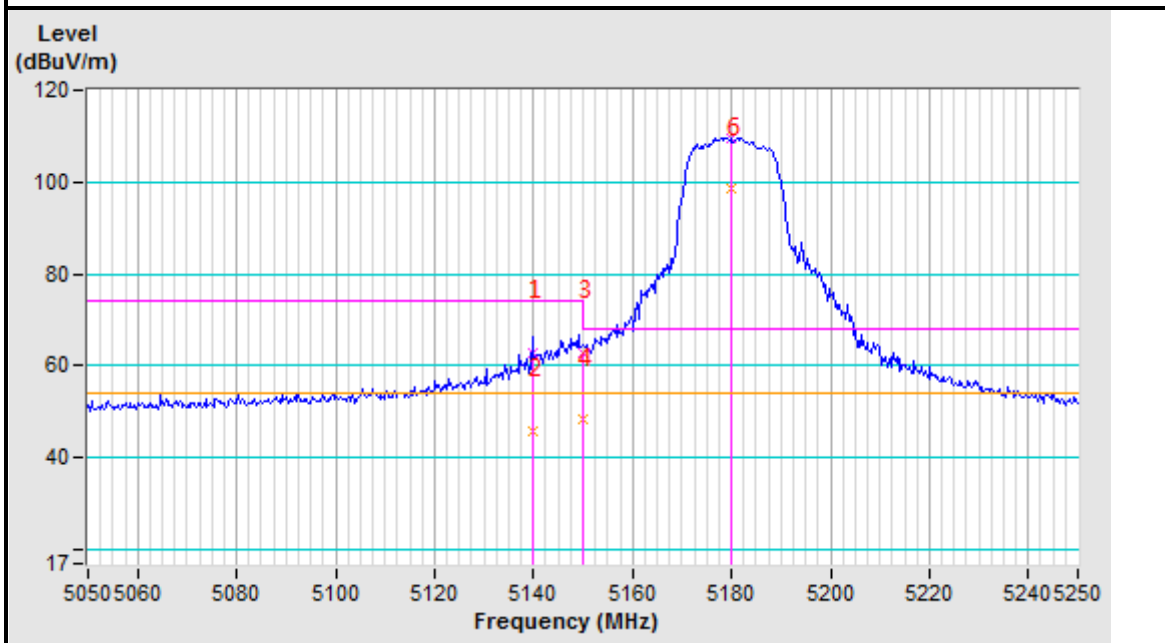


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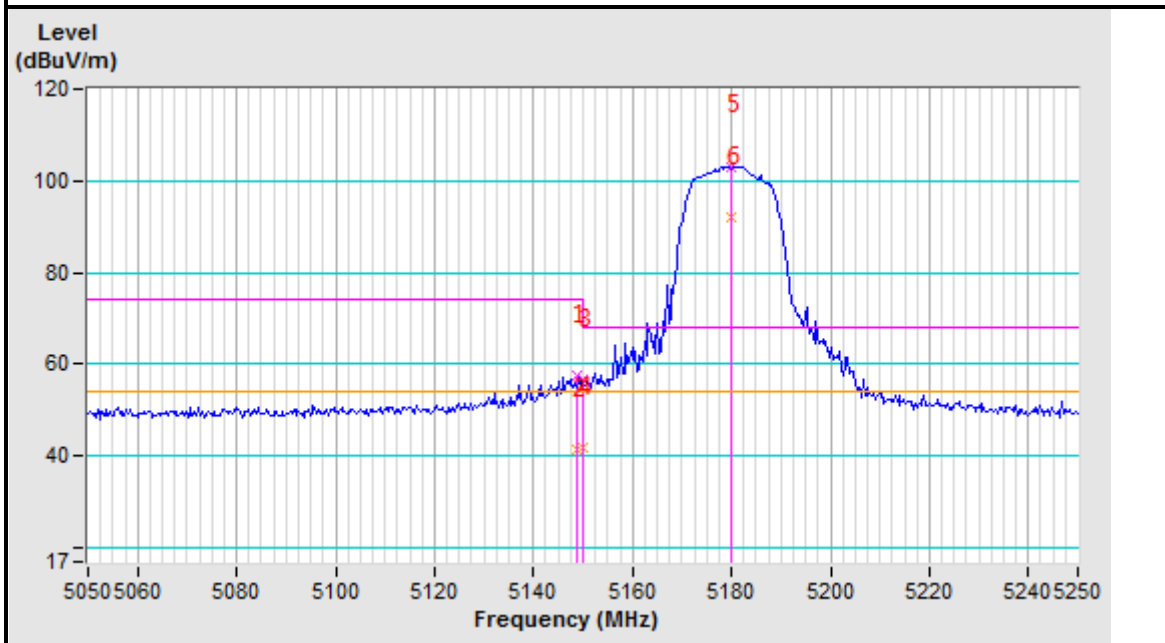
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5180MHz Horizontal



#### 5180MHz Vertical





<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	5144.00	50.12 PK	74.00	-23.88	1.00 H	169	41.32	8.80
2	5144.00	37.42 AV	54.00	-16.58	1.00 H	169	28.62	8.80
3	5150.00	49.22 PK	74.00	-24.78	1.00 H	169	40.42	8.80
4	5150.00	37.62 AV	54.00	-16.38	1.00 H	169	28.82	8.80
5	*5200.00	105.31 PK			1.00 H	169	96.46	8.85
6	*5200.00	92.41 AV			1.00 H	169	83.56	8.85
7	#10400.00	47.62 PK	68.20	-20.58	1.00 H	0	29.62	18.00
8	15600.00	48.36 PK	74.00	-25.64	1.00 H	0	24.15	24.21
9	15600.00	37.12 AV	54.00	-16.88	1.00 H	0	12.91	24.21

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	5140.00	50.83 PK	74.00	-23.17	1.00 V	227	42.04	8.79
2	5140.00	38.31 AV	54.00	-15.69	1.00 V	227	29.52	8.79
3	5150.00	50.34 PK	74.00	-23.66	1.00 V	227	41.54	8.80
4	5150.00	38.80 AV	54.00	-15.20	1.00 V	227	30.00	8.80
5	*5200.00	106.39 PK			1.00 V	227	97.54	8.85
6	*5200.00	93.24 AV			1.00 V	227	84.39	8.85
7	#10400.00	49.60 PK	68.20	-18.60	1.00 V	0	31.60	18.00
8	15600.00	53.20 PK	74.00	-20.80	1.00 V	0	28.99	24.21
9	15600.00	35.60 AV	54.00	-18.40	1.00 V	0	11.39	24.21

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 greater than 20dB margin.
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	5148.00	50.88 PK	74.00	-23.12	1.00 H	148	42.08	8.80
2	5148.00	38.81 AV	54.00	-15.19	1.00 H	148	30.01	8.80
3	5150.00	49.66 PK	74.00	-24.34	1.00 H	145	40.86	8.80
4	5150.00	38.86 AV	54.00	-15.14	1.00 H	145	30.06	8.80
5	*5240.00	107.67 PK			1.00 H	145	98.79	8.88
6	*5240.00	95.47 AV			1.00 H	145	86.59	8.88
7	5350.00	50.36 PK	74.00	-23.64	1.00 H	145	41.38	8.98
8	5350.00	39.43 AV	54.00	-14.57	1.00 H	145	30.45	8.98
9	5366.00	51.54 PK	74.00	-22.46	1.00 H	145	42.54	9.00
10	5366.00	39.00 AV	54.00	-15.00	1.00 H	145	30.00	9.00
11	#10480.00	46.78 PK	68.20	-21.42	1.00 H	0	28.41	18.37
12	15720.00	47.15 PK	74.00	-26.85	1.00 H	0	22.72	24.43
13	15720.00	38.12 AV	54.00	-15.88	1.00 H	0	13.69	24.43

**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	5146.00	49.75 PK	74.00	-24.25	1.00 V	267	40.96	8.79
2	5146.00	37.85 AV	54.00	-16.15	1.00 V	267	29.06	8.79
3	5150.00	50.08 PK	74.00	-23.92	1.00 V	267	41.28	8.80
4	5150.00	38.12 AV	54.00	-15.88	1.00 V	267	29.32	8.80
5	*5240.00	104.80 PK			1.00 V	267	95.92	8.88
6	*5240.00	93.34 AV			1.00 V	267	84.46	8.88
7	5350.00	49.52 PK	74.00	-24.48	1.00 V	267	40.54	8.98
8	5350.00	38.67 AV	54.00	-15.33	1.00 V	267	29.69	8.98
9	5378.00	51.42 PK	74.00	-22.58	1.00 V	267	42.42	9.00
10	5378.00	38.52 AV	54.00	-15.48	1.00 V	267	29.52	9.00
11	#10480.00	44.12 PK	68.20	-24.08	1.00 V	0	25.75	18.37
12	15720.00	47.36 PK	74.00	-26.64	1.00 V	0	22.93	24.43
13	15720.00	35.89 AV	54.00	-18.11	1.00 V	0	11.46	24.43

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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Test Report No.: RF2010WDG0259-2

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	5147.11	67.94 PK	74.00	-6.06	1.21 H	258	59.15	8.79
2	5147.11	48.94 AV	54.00	-5.06	1.21 H	258	40.15	8.79
3	5150.00	65.29 PK	74.00	-8.71	1.21 H	258	56.49	8.80
4	5150.00	50.29 AV	54.00	-3.71	1.21 H	258	41.49	8.80
5	*5190.00	106.41 PK			1.21 H	258	97.58	8.83
6	*5190.00	94.38 AV			1.21 H	258	85.55	8.83
7	#10380.00	42.36 PK	68.20	-25.84	1.00 H	0	24.45	17.91
8	15570.00	51.63 PK	74.00	-22.37	1.00 H	0	27.48	24.15
9	15570.00	35.47 AV	54.00	-18.53	1.00 H	0	11.32	24.15

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	5144.23	57.56 PK	74.00	-16.44	1.00 V	206	48.76	8.80
2	5144.23	41.07 AV	54.00	-12.93	1.00 V	206	32.27	8.80
3	5150.00	58.76 PK	74.00	-15.24	1.00 V	206	49.96	8.80
4	5150.00	43.14 AV	54.00	-10.86	1.00 V	206	34.34	8.80
5	*5190.00	97.82 PK			1.00 V	206	88.99	8.83
6	*5190.00	86.24 AV			1.00 V	206	77.41	8.83
7	#10380.00	43.85 PK	68.20	-24.35	1.00 V	0	25.94	17.91
8	15570.00	50.63 PK	74.00	-23.37	1.00 V	0	26.48	24.15
9	15570.00	34.29 AV	54.00	-19.71	1.00 V	0	10.14	24.15

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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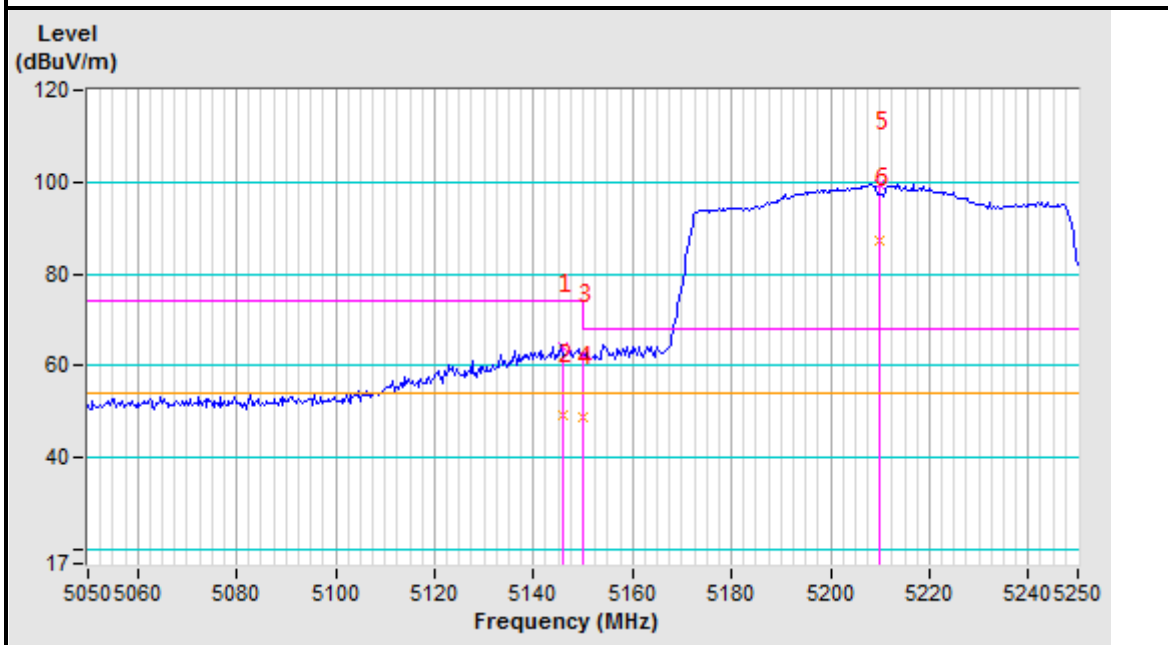


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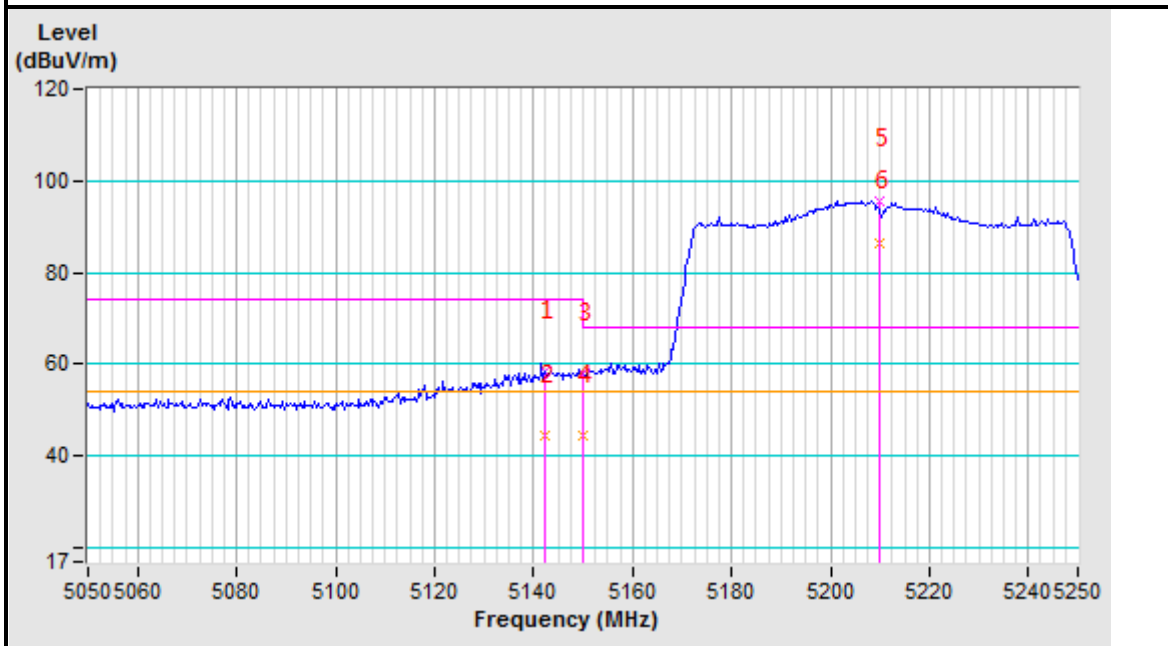
Test Report No.: RF2010WDG0259-2

### 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	5147.24	51.86 PK	74.00	-22.14	1.00 H	223	43.07	8.79
2	5147.24	39.14 AV	54.00	-14.86	1.00 H	223	30.35	8.79
3	5150.00	51.75 PK	74.00	-22.25	1.00 H	223	42.95	8.80
4	5150.00	40.68 AV	54.00	-13.32	1.00 H	223	31.88	8.80
5	#5230.00	100.95 PK			1.00 H	223	92.08	8.87
6	#5230.00	88.67 AV			1.00 H	223	79.80	8.87
7	#10460.00	54.22 PK	68.20	-13.98	1.00 H	0	35.94	18.28
8	15690.00	55.85 PK	74.00	-18.15	1.00 H	0	31.48	24.37
9	15690.00	39.12 AV	54.00	-14.88	1.00 H	0	14.75	24.37

**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	5133.68	49.68 PK	74.00	-24.32	1.00 V	297	40.90	8.78
2	5133.68	38.11 AV	54.00	-15.89	1.00 V	297	29.33	8.78
3	5150.00	51.62 PK	74.00	-22.38	1.00 V	297	42.82	8.80
4	5150.00	38.55 AV	54.00	-15.45	1.00 V	297	29.75	8.80
5	#5230.00	97.12 PK			1.00 V	297	88.25	8.87
6	#5230.00	84.22 AV			1.00 V	297	75.35	8.87
7	#10460.00	52.65 PK	68.20	-15.55	1.00 V	0	34.37	18.28
8	15690.00	57.52 PK	74.00	-16.48	1.00 V	0	33.15	24.37
9	15690.00	42.57 AV	54.00	-11.43	1.00 V	0	18.20	24.37

**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 greater than 20dB margin.
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)

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	5146.15	64.29 PK	74.00	-9.71	1.20 H	255	55.50	8.79
2	5146.15	49.19 AV	54.00	-4.81	1.20 H	255	40.40	8.79
3	5150.00	62.20 PK	74.00	-11.80	1.20 H	255	53.40	8.80
4	5150.00	48.87 AV	54.00	-5.13	1.20 H	255	40.07	8.80
5	*5210.00	99.60 PK			1.20 H	255	90.75	8.85
6	*5210.00	87.33 AV			1.20 H	255	78.48	8.85
7	#10420.00	54.14 PK	68.20	-14.06	1.00 H	0	36.05	18.09
8	15630.00	55.68 PK	74.00	-18.32	1.00 H	0	31.42	24.26
9	15630.00	44.31 AV	54.00	-9.69	1.00 H	0	20.05	24.26

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	5142.30	58.30 PK	74.00	-15.70	1.21 V	265	49.51	8.79
2	5142.30	44.48 AV	54.00	-9.52	1.21 V	265	35.69	8.79
3	5150.00	57.97 PK	74.00	-16.03	1.21 V	265	49.17	8.80
4	5150.00	44.31 AV	54.00	-9.69	1.21 V	265	35.51	8.80
5	*5210.00	95.76 PK			1.21 V	265	86.91	8.85
6	*5210.00	86.54 AV			1.21 V	265	77.69	8.85
7	#10420.00	54.96 PK	68.20	-13.24	1.00 V	0	36.87	18.09
8	15630.00	54.67 PK	74.00	-19.33	1.00 V	0	30.41	24.26
9	15630.00	43.62 AV	54.00	-10.38	1.00 V	0	19.36	24.26

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

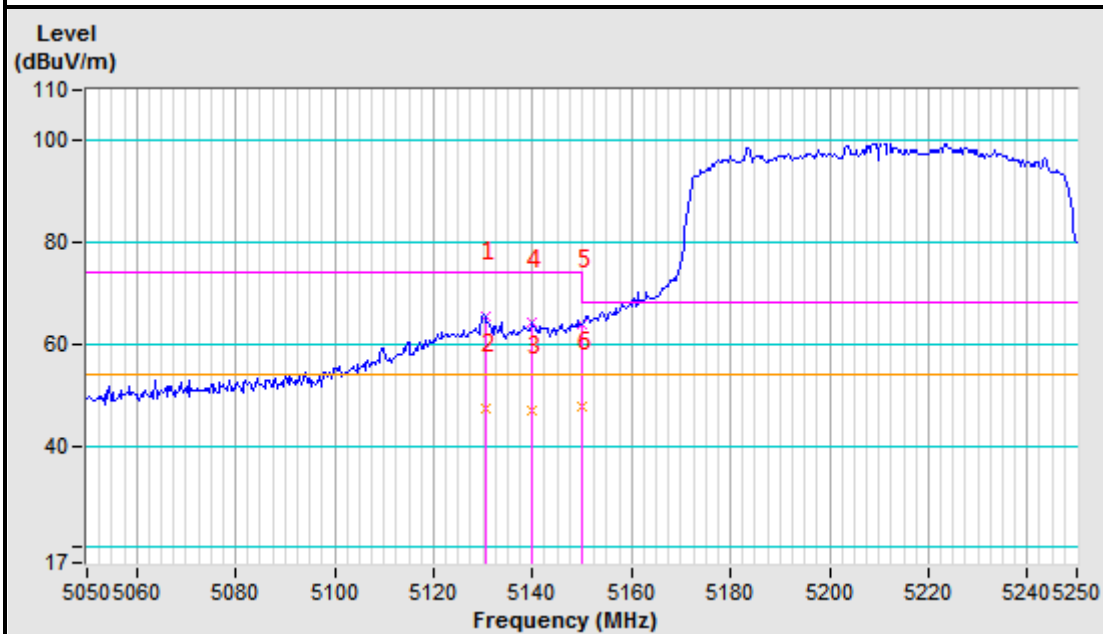


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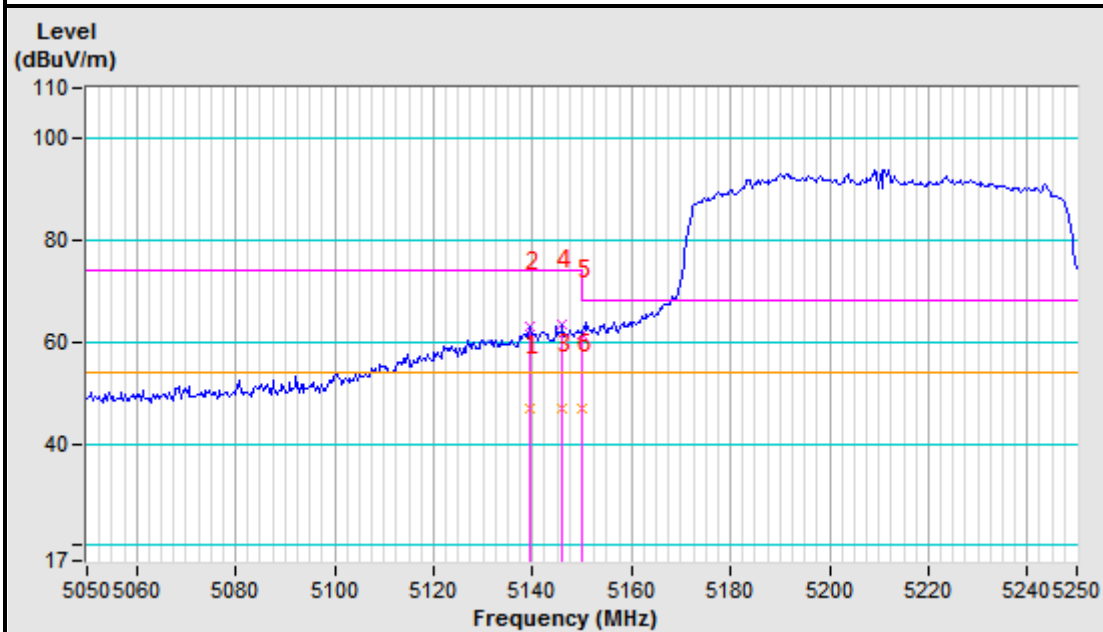
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5210MHz Horizontal



#### 5210MHz Vertical





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Test Report No.: RF2010WDG0259-2

Band 2 (5250-5350MHz): ABOVE 1GHz DATA 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	5140.00	51.32 PK	74.00	-22.68	1.00 H	242	42.53	8.79
2	5140.00	39.50 AV	54.00	-14.50	1.00 H	242	30.71	8.79
3	5150.00	49.97 PK	74.00	-24.03	1.00 H	242	41.17	8.80
4	5150.00	38.25 AV	54.00	-15.75	1.00 H	242	29.45	8.80
5	*5260.00	109.29 PK			1.00 H	242	100.39	8.90
6	*5260.00	98.16 AV			1.00 H	242	89.26	8.90
7	5350.00	52.12 PK	74.00	-21.88	1.00 H	242	43.14	8.98
8	5350.00	39.42 AV	54.00	-14.58	1.00 H	242	30.44	8.98
9	5355.00	51.86 PK	74.00	-22.14	1.00 H	242	42.87	8.99
10	5355.00	39.44 AV	54.00	-14.56	1.00 H	242	30.45	8.99
11	#10520.00	53.21 PK	68.20	-14.99	1.00 H	0	34.69	18.52
12	15780.00	54.26 PK	74.00	-19.74	1.00 H	0	29.73	24.53
13	15780.00	43.62 AV	54.00	-10.38	1.00 H	0	19.09	24.53

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	5139.00	50.02 PK	74.00	-23.98	1.00 V	258	41.23	8.79
2	5139.00	38.40 AV	54.00	-15.60	1.00 V	258	29.61	8.79
3	5150.00	49.35 PK	74.00	-24.65	1.00 V	258	40.55	8.80
4	5150.00	37.48 AV	54.00	-16.52	1.00 V	258	28.68	8.80
5	*5260.00	103.70 PK			1.00 V	258	94.80	8.90
6	*5260.00	92.71 AV			1.00 V	258	83.81	8.90
7	5350.00	51.45 PK	74.00	-22.55	1.00 V	258	42.47	8.98
8	5350.00	38.80 AV	54.00	-15.20	1.00 V	258	29.82	8.98
9	5357.00	51.34 PK	74.00	-22.66	1.00 V	258	42.35	8.99
10	5357.00	38.39 AV	54.00	-15.61	1.00 V	258	29.40	8.99
11	#10520.00	52.36 PK	68.20	-15.84	1.00 V	0	33.84	18.52
12	15780.00	55.31 PK	74.00	-18.69	1.00 V	0	30.78	24.53
13	15780.00	41.63 AV	54.00	-12.37	1.00 V	0	17.10	24.53

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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Test Report No.: RF2010WDG0259-2

<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	109.94 PK			1.00 H	96	101.01	8.93
2	*5300.00	98.89 AV			1.00 H	96	89.96	8.93
3	5350.00	55.98 PK	74.00	-18.02	1.00 H	96	47.00	8.98
4	5350.00	42.66 AV	54.00	-11.34	1.00 H	96	33.68	8.98
5	5372.00	51.50 PK	74.00	-22.50	1.00 H	96	42.50	9.00
6	5372.00	40.58 AV	54.00	-13.42	1.00 H	96	31.58	9.00
7	10600.00	56.30 PK	74.00	-17.70	1.00 H	96	37.59	18.71
8	15900.00	56.63 PK	74.00	-17.37	1.00 H	0	31.88	24.75
9	15900.00	43.52 AV	54.00	-10.48	1.00 H	0	18.77	24.75

**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	108.23 PK			1.00 V	187	99.30	8.93
2	*5300.00	96.34 AV			1.00 V	187	87.41	8.93
3	5350.00	54.12 PK	74.00	-19.88	1.00 V	187	45.14	8.98
4	5350.00	41.65 AV	54.00	-12.35	1.00 V	187	32.67	8.98
5	5359.00	49.85 PK	74.00	-24.15	1.00 V	187	40.86	8.99
6	5359.00	39.65 AV	54.00	-14.35	1.00 V	187	30.66	8.99
7	10600.00	55.75 PK	74.00	-18.25	1.00 V	0	37.04	18.71
8	15900.00	56.63 PK	74.00	-17.37	1.00 V	0	31.88	24.75
9	15900.00	41.26 AV	54.00	-12.74	1.00 V	0	16.51	24.75

**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 greater than 20dB margin.
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	110.67 PK			1.15 H	257	101.71	8.96
2	*5320.00	99.65 AV			1.15 H	257	90.69	8.96
3	5350.00	63.67 PK	74.00	-10.33	1.15 H	257	54.69	8.98
4	5350.00	46.61 AV	54.00	-7.39	1.15 H	257	37.63	8.98
5	5359.93	61.26 PK	74.00	-12.74	1.15 H	257	52.27	8.99
6	5359.93	44.19 AV	54.00	-9.81	1.15 H	257	35.20	8.99
7	10640.00	48.62 PK	74.00	-25.38	1.00 H	211	29.81	18.81
8	10640.00	36.52 AV	54.00	-17.48	1.00 H	211	17.71	18.81
9	15960.00	48.62 PK	74.00	-25.38	1.00 H	211	23.75	24.87
10	15960.00	35.23 AV	54.00	-18.77	1.00 H	211	10.36	24.87

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.73 PK			1.01 V	205	94.77	8.96
2	*5320.00	92.82 AV			1.01 V	205	83.86	8.96
3	5350.00	57.29 PK	74.00	-16.71	1.01 V	205	48.31	8.98
4	5350.00	42.03 AV	54.00	-11.97	1.01 V	205	33.05	8.98
5	5360.25	58.43 PK	74.00	-15.57	1.01 V	205	49.44	8.99
6	5360.25	41.59 AV	54.00	-12.41	1.01 V	205	32.60	8.99
7	10640.00	50.31 PK	74.00	-23.69	1.00 V	211	31.50	18.81
8	10640.00	38.62 AV	54.00	-15.38	1.00 V	211	19.81	18.81
9	15960.00	52.69 PK	74.00	-21.31	1.00 V	211	27.82	24.87
10	15960.00	36.52 AV	54.00	-17.48	1.00 V	211	11.65	24.87

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.

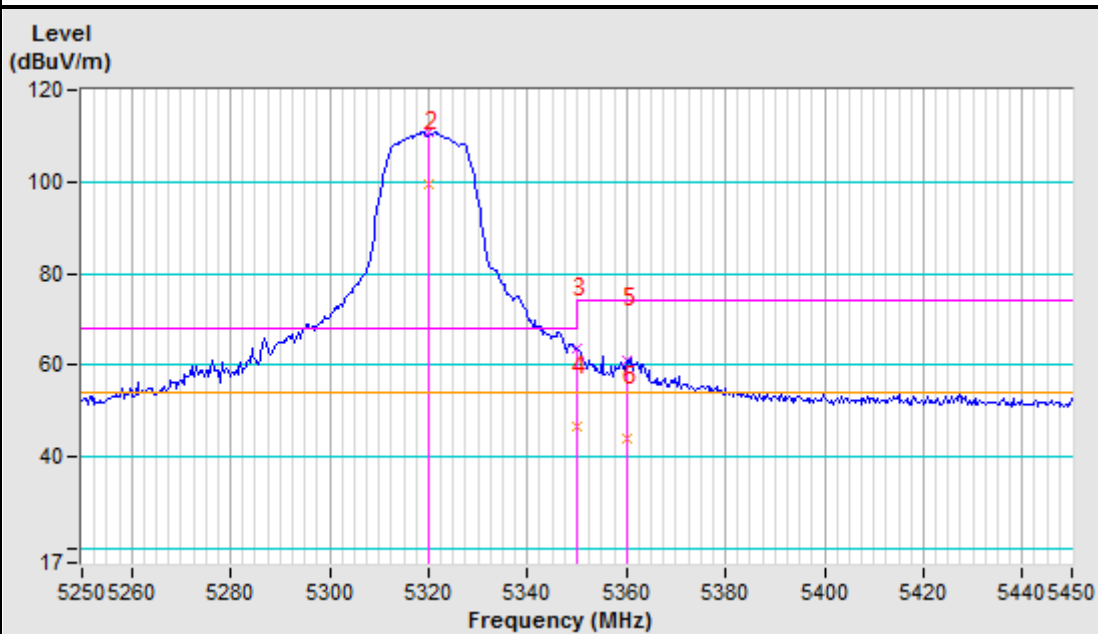


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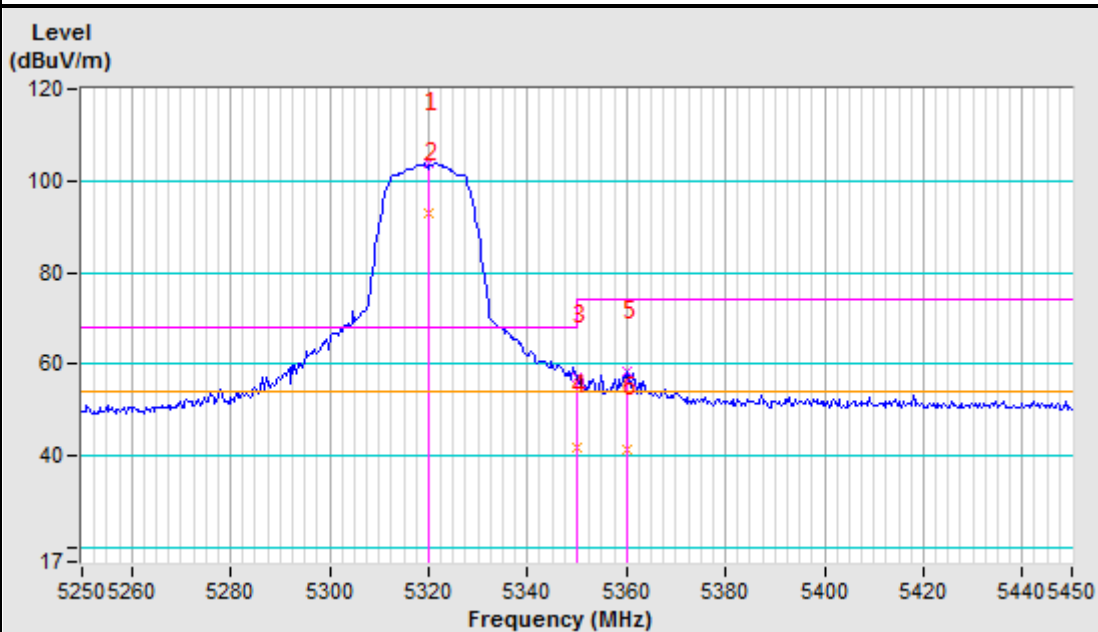
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5320MHz Horizontal



#### 5320MHz Vertical





802.11n (20MHz)

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	5140.00	50.96 PK	74.00	-23.04	1.00 H	79	42.17	8.79
2	5140.00	37.95 AV	54.00	-16.05	1.00 H	79	29.16	8.79
3	5150.00	48.55 PK	74.00	-25.45	1.00 H	79	39.75	8.80
4	5150.00	37.10 AV	54.00	-16.90	1.00 H	79	28.30	8.80
5	*5260.00	105.92 PK			1.00 H	79	97.02	8.90
6	*5260.00	94.97 AV			1.00 H	79	86.07	8.90
7	5350.00	50.24 PK	74.00	-23.76	1.00 H	79	41.26	8.98
8	5350.00	38.42 AV	54.00	-15.58	1.00 H	79	29.44	8.98
9	5358.00	53.44 PK	74.00	-20.56	1.00 H	79	44.45	8.99
10	5358.00	39.21 AV	54.00	-14.79	1.00 H	79	30.22	8.99
11	#10520.00	53.95 PK	68.20	-14.25	1.00 H	0	35.43	18.52
12	15780.00	47.62 PK	74.00	-26.38	1.00 H	0	23.09	24.53
13	15780.00	34.96 AV	54.00	-19.04	1.00 H	0	10.43	24.53

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	5144.00	49.48 PK	74.00	-24.52	1.00 V	248	40.68	8.80
2	5144.00	36.35 AV	54.00	-17.65	1.00 V	248	27.55	8.80
3	5150.00	48.71 PK	74.00	-25.29	1.00 V	248	39.91	8.80
4	5150.00	36.30 AV	54.00	-17.70	1.00 V	248	27.50	8.80
5	*5260.00	101.26 PK			1.00 V	248	92.36	8.90
6	*5260.00	89.91 AV			1.00 V	248	81.01	8.90
7	5350.00	49.90 PK	74.00	-24.10	1.00 V	248	40.92	8.98
8	5350.00	37.61 AV	54.00	-16.39	1.00 V	248	28.63	8.98
9	5352.00	52.22 PK	74.00	-21.78	1.00 V	248	43.24	8.98
10	5352.00	37.60 AV	54.00	-16.40	1.00 V	248	28.62	8.98
11	#10520.00	48.62 PK	68.20	-19.58	1.00 V	0	30.10	18.52
12	15780.00	46.62 PK	74.00	-27.38	1.00 V	0	22.09	24.53
13	15780.00	35.96 AV	54.00	-18.04	1.00 V	0	11.43	24.53

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 greater than 20dB margin.
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 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	106.52 PK			1.29 H	143	97.59	8.93
2	*5300.00	94.28 AV			1.29 H	143	85.35	8.93
3	5350.00	47.62 PK	74.00	-26.38	1.29 H	143	38.64	8.98
4	5350.00	38.65 AV	54.00	-15.35	1.29 H	143	29.67	8.98
5	5455.36	47.30 PK	74.00	-26.70	1.29 H	143	38.22	9.08
6	5455.36	36.20 AV	54.00	-17.80	1.29 H	143	27.12	9.08
7	10600.00	54.63 PK	74.00	-19.37	1.00 H	0	35.92	18.71
8	10600.00	44.62 AV	54.00	-9.38	1.00 H	0	25.91	18.71
9	15900.00	55.61 PK	74.00	-18.39	1.00 H	0	30.86	24.75
10	15900.00	44.99 AV	54.00	-9.01	1.00 H	0	20.24	24.75

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	100.95 PK			1.00 V	55	92.02	8.93
2	*5300.00	88.12 AV			1.00 V	55	79.19	8.93
3	5350.00	49.26 PK	74.00	-24.74	1.00 V	55	40.28	8.98
4	5350.00	36.25 AV	54.00	-17.75	1.00 V	55	27.27	8.98
5	5359.15	55.32 PK	74.00	-18.68	1.00 V	55	46.33	8.99
6	5359.15	42.62 AV	54.00	-11.38	1.00 V	55	33.63	8.99
7	10600.00	52.13 PK	74.00	-21.87	1.00 V	0	33.42	18.71
8	10600.00	42.11 AV	54.00	-11.89	1.00 V	0	23.40	18.71
9	15900.00	57.62 PK	74.00	-16.38	1.00 V	0	32.87	24.75
10	15900.00	47.52 AV	54.00	-6.48	1.00 V	0	22.77	24.75

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.





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<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	109.17 PK			1.15 H	259	100.21	8.96
2	*5320.00	97.99 AV			1.15 H	259	89.03	8.96
3	5350.00	60.82 PK	74.00	-13.18	1.15 H	259	51.84	8.98
4	5350.00	46.51 AV	54.00	-7.49	1.15 H	259	37.53	8.98
5	5367.62	55.59 PK	74.00	-18.41	1.15 H	259	46.59	9.00
6	5367.62	42.69 AV	54.00	-11.31	1.15 H	259	33.69	9.00
7	10640.00	53.62 PK	74.00	-20.38	1.00 H	0	34.81	18.81
8	10640.00	40.32 AV	54.00	-13.68	1.00 H	0	21.51	18.81
9	15960.00	56.12 PK	74.00	-17.88	1.00 H	0	31.25	24.87
10	15960.00	45.48 AV	54.00	-8.52	1.00 H	0	20.61	24.87

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.41 PK			1.00 V	204	94.45	8.96
2	*5320.00	91.88 AV			1.00 V	204	82.92	8.96
3	5350.00	57.28 PK	74.00	-16.72	1.00 V	204	48.30	8.98
4	5350.00	42.31 AV	54.00	-11.69	1.00 V	204	33.33	8.98
5	5354.16	57.94 PK	74.00	-16.06	1.00 V	204	48.95	8.99
6	5354.16	41.73 AV	54.00	-12.27	1.00 V	204	32.74	8.99
7	10640.00	55.12 PK	74.00	-18.88	1.00 V	0	36.31	18.81
8	10640.00	42.68 AV	54.00	-11.32	1.00 V	0	23.87	18.81
9	15960.00	57.62 PK	74.00	-16.38	1.00 V	0	32.75	24.87
10	15960.00	44.62 AV	54.00	-9.38	1.00 V	0	19.75	24.87

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.

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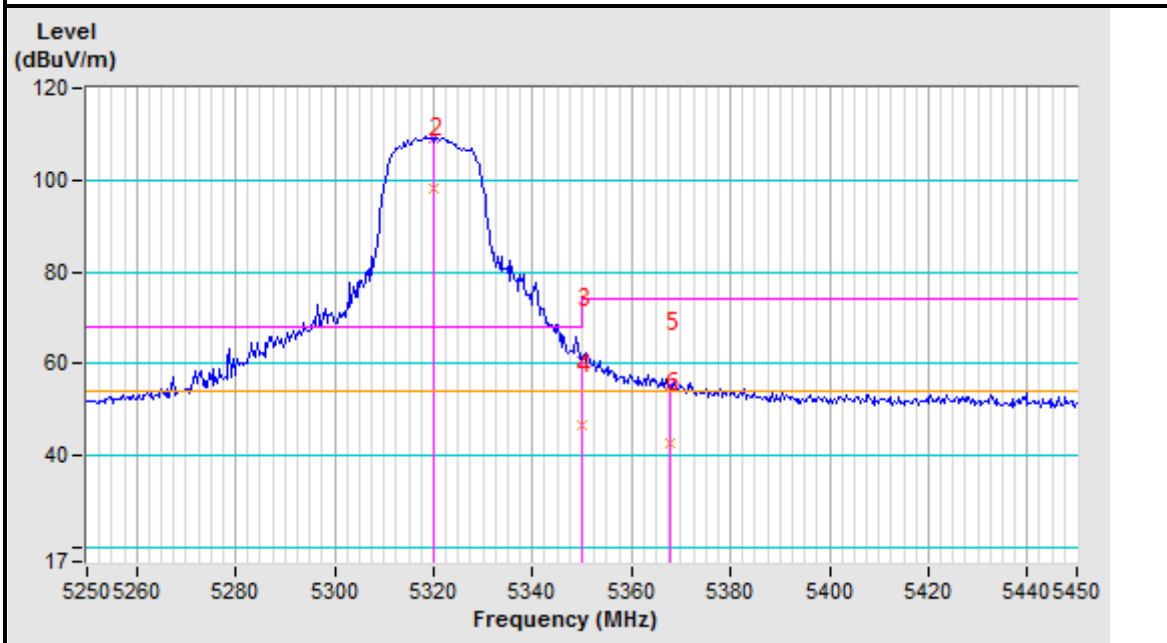


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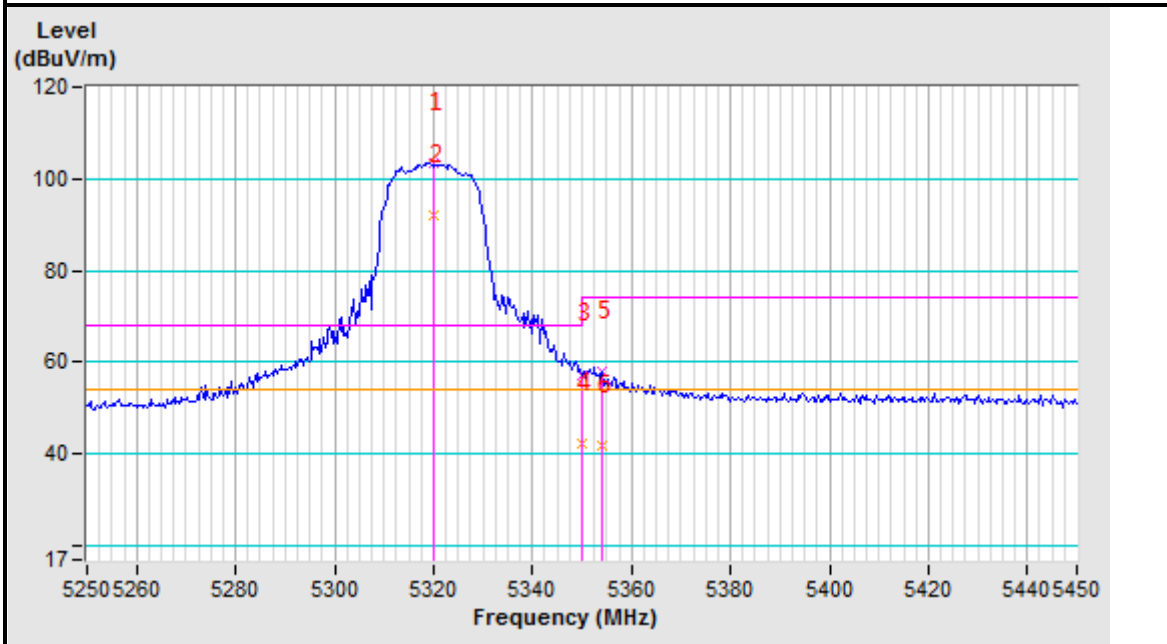
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### Band edge Plot

#### 5320MHz Horizontal



#### 5320MHz Vertical





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Test Report No.: RF2010WDG0259-2

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	104.11 PK			1.00 H	46	95.20	8.91
2	*5270.00	92.57 AV			1.00 H	46	83.66	8.91
3	5350.00	56.47 PK	74.00	-17.53	1.00 H	46	47.49	8.98
4	5350.00	43.87 AV	54.00	-10.13	1.00 H	46	34.89	8.98
5	5355.42	51.24 PK	74.00	-22.76	1.00 H	46	42.25	8.99
6	5355.42	39.51 AV	54.00	-14.49	1.00 H	46	30.52	8.99
7	#10540.00	53.68 PK	68.20	-14.52	1.00 H	0	35.11	18.57
8	15810.00	57.62 PK	74.00	-16.38	1.00 H	0	33.03	24.59
9	15810.00	43.11 AV	54.00	-10.89	1.00 H	0	18.52	24.59

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	*5270.00	98.52 PK			1.00 V	185	89.61	8.91
2	*5270.00	87.12 AV			1.00 V	185	78.21	8.91
3	5350.00	53.10 PK	74.00	-20.90	1.00 V	185	44.12	8.98
4	5350.00	39.15 AV	54.00	-14.85	1.00 V	185	30.17	8.98
5	5384.26	50.12 PK	74.00	-23.88	1.00 V	185	41.11	9.01
6	5384.26	40.11 AV	54.00	-13.89	1.00 V	185	31.10	9.01
7	#10540.00	55.62 PK	68.20	-12.58	1.00 V	0	37.05	18.57
8	15810.00	58.12 PK	74.00	-15.88	1.00 V	0	33.53	24.59
9	15810.00	43.44 AV	54.00	-10.56	1.00 V	0	18.85	24.59

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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<b>CHANNEL</b>	TX Channel 62	<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	*5310.00	106.82 PK			1.16 H	257	97.87	8.95
2	*5310.00	94.88 AV			1.16 H	257	85.93	8.95
3	5350.00	66.16 PK	74.00	-7.84	1.16 H	257	57.18	8.98
4	<b>5350.00</b>	<b>49.21 AV</b>	<b>54.00</b>	<b>-4.79</b>	<b>1.16 H</b>	<b>257</b>	<b>40.23</b>	<b>8.98</b>
5	5356.08	69.14 PK	74.00	-4.86	1.16 H	257	60.16	8.98
6	5356.08	46.33 AV	54.00	-7.67	1.16 H	257	37.35	8.98
7	10620.00	53.12 PK	74.00	-20.88	1.00 H	0	34.36	18.76
8	10620.00	42.36 AV	54.00	-11.64	1.00 H	0	23.60	18.76
9	15930.00	55.47 PK	74.00	-18.53	1.00 H	0	30.66	24.81
10	15930.00	45.28 AV	54.00	-8.72	1.00 H	0	20.47	24.81
<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	*5310.00	100.61 PK			1.01 V	205	91.66	8.95
2	*5310.00	89.01 AV			1.01 V	205	80.06	8.95
3	5350.00	61.45 PK	74.00	-12.55	1.01 V	205	52.47	8.98
4	5350.00	46.13 AV	54.00	-7.87	1.01 V	205	37.15	8.98
5	5353.52	65.28 PK	74.00	-8.72	1.01 V	205	56.29	8.99
6	5353.52	44.92 AV	54.00	-9.08	1.01 V	205	35.93	8.99
7	10620.00	55.85 PK	74.00	-18.15	1.00 V	0	37.09	18.76
8	10620.00	43.12 AV	54.00	-10.88	1.00 V	0	24.36	18.76
9	15930.00	56.85 PK	74.00	-17.15	1.00 V	0	32.04	24.81
10	15930.00	46.21 AV	54.00	-7.79	1.00 V	0	21.40	24.81

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.

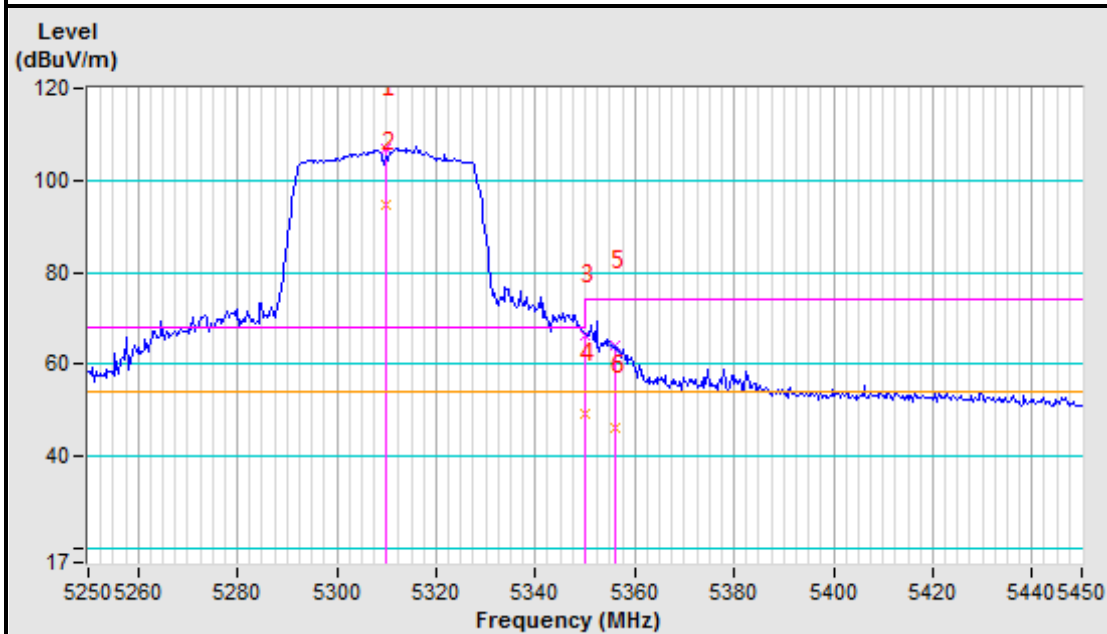


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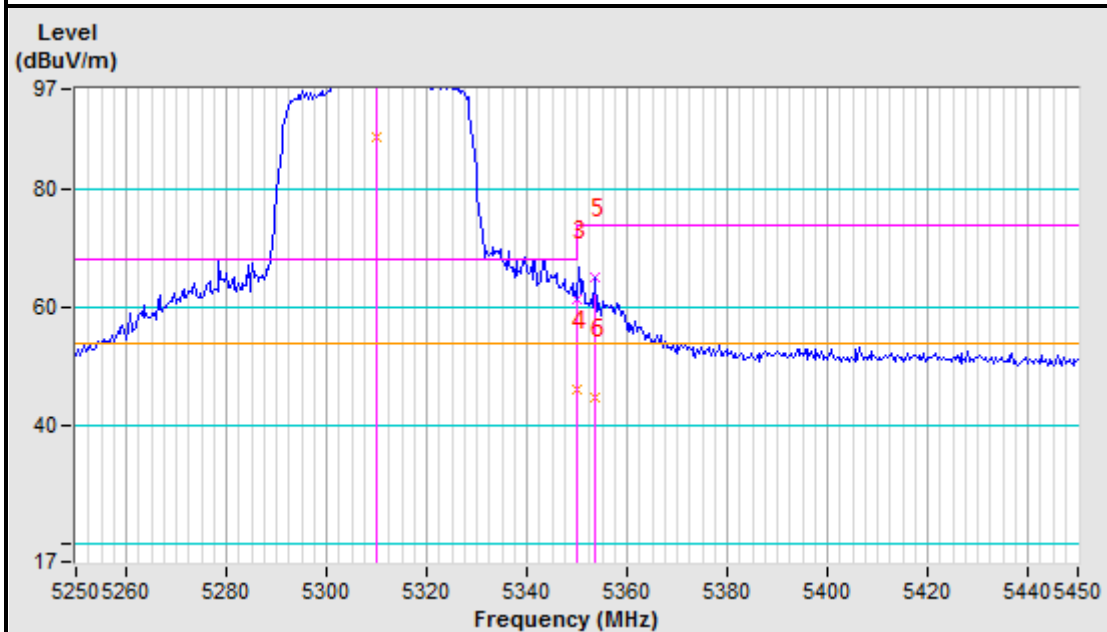
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5310MHz Horizontal



#### 5310MHz Vertical





802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	102.34 PK			1.13 H	256	93.41	8.93
2	*5290.00	90.09 AV			1.13 H	256	81.16	8.93
3	5350.00	64.46 PK	74.00	-9.54	1.13 H	256	55.48	8.98
4	5350.00	49.04 AV	54.00	-4.96	1.13 H	256	40.06	8.98
5	5352.24	65.92 PK	74.00	-8.08	1.13 H	256	56.94	8.98
6	5352.24	48.82 AV	54.00	-5.18	1.13 H	256	39.84	8.98
7	#10580.00	54.22 PK	68.20	-13.98	1.00 H	0	35.56	18.66
8	15870.00	58.61 PK	74.00	-15.39	1.00 H	0	33.91	24.70
9	15870.00	44.18 AV	54.00	-9.82	1.00 H	0	19.48	24.70

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	95.82 PK			1.02 V	204	86.89	8.93
2	*5290.00	83.37 AV			1.02 V	204	74.44	8.93
3	5350.00	56.09 PK	74.00	-17.91	1.02 V	204	47.11	8.98
4	5350.00	42.90 AV	54.00	-11.10	1.02 V	204	33.92	8.98
5	5362.17	58.80 PK	74.00	-15.20	1.02 V	204	49.80	9.00
6	5362.17	42.24 AV	54.00	-11.76	1.02 V	204	33.24	9.00
7	#10580.00	53.96 PK	68.20	-14.24	1.00 V	0	35.30	18.66
8	15870.00	57.42 PK	74.00	-16.58	1.00 V	0	32.72	24.70
9	15870.00	43.55 AV	54.00	-10.45	1.00 V	0	18.85	24.70

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

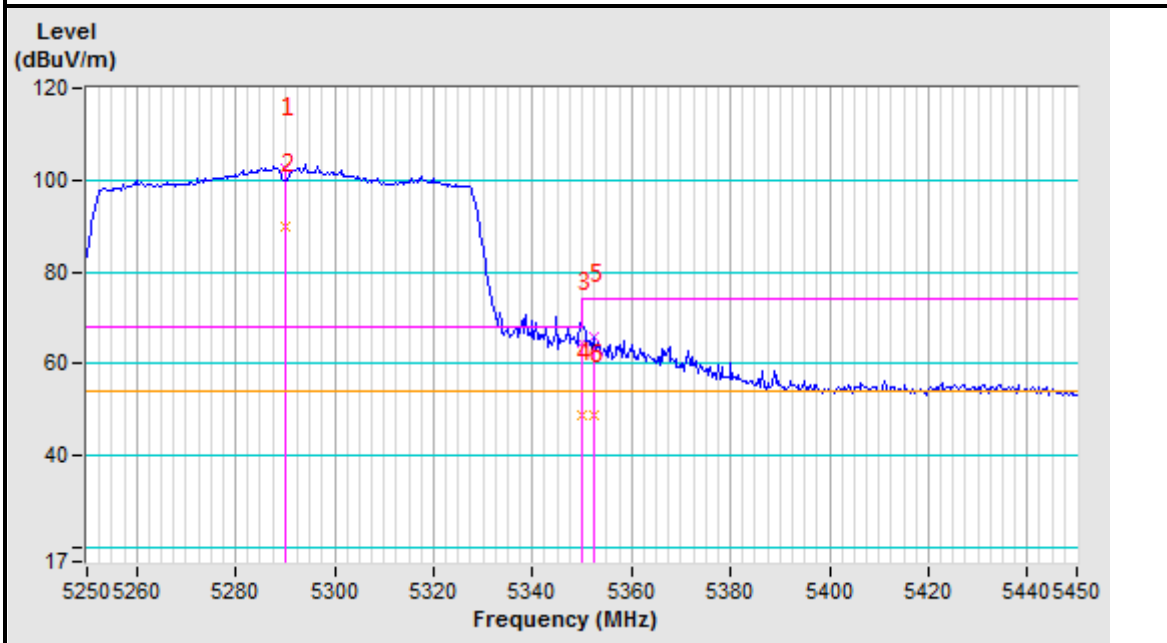


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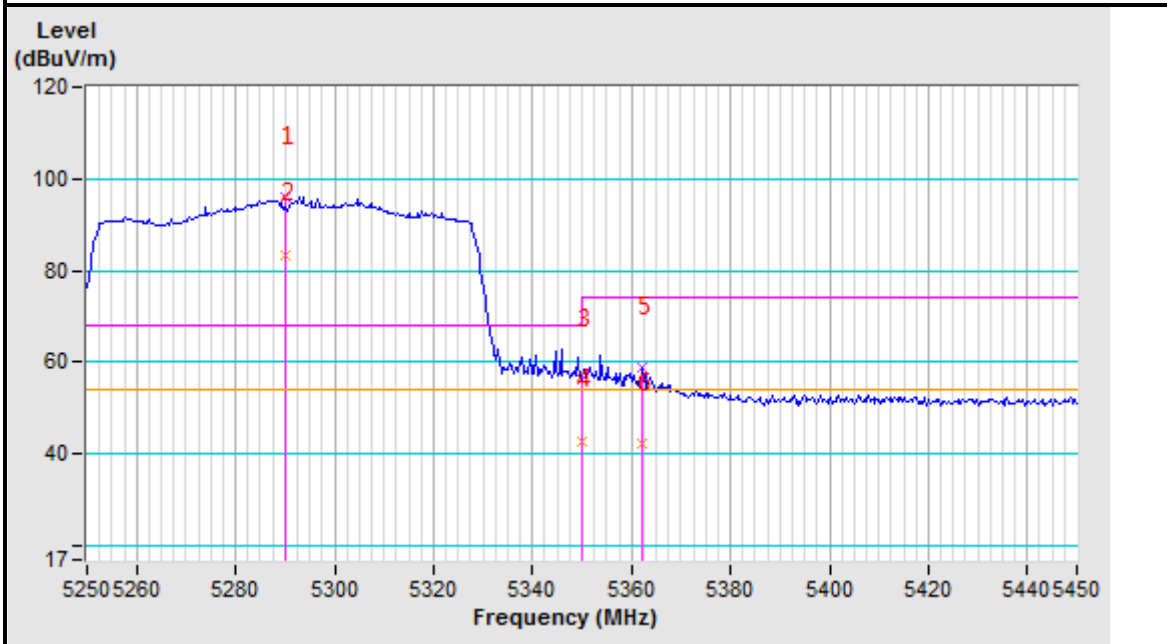
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### Band edge Plot

#### 5290MHz Horizontal



#### 5290MHz Vertical





Band 3 (5470-5725MHz): ABOVE 1GHz DATA 802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.51	63.78 PK	68.20	-4.42	1.02 H	257	54.69	9.09
2	#5470.00	62.68 PK	68.20	-5.52	1.02 H	257	53.59	9.09
3	*5500.00	108.35 PK			1.02 H	257	99.23	9.12
4	*5500.00	97.03 AV			1.02 H	257	87.91	9.12
5	11000.00	52.85 PK	74.00	-21.15	1.00 H	0	33.17	19.68
6	11000.00	40.42 AV	54.00	-13.58	1.00 H	0	20.74	19.68
7	#16500.00	52.15 PK	68.20	-16.05	1.00 H	0	26.72	25.43

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	#5465.51	61.73 PK	68.20	-6.47	1.00 V	209	52.64	9.09
2	#5470.00	59.70 PK	68.20	-8.50	1.00 V	209	50.61	9.09
3	*5500.00	102.01 PK			1.00 V	209	92.89	9.12
4	*5500.00	91.34 AV			1.00 V	209	82.22	9.12
5	11000.00	54.85 PK	74.00	-19.15	1.00 V	0	35.17	19.68
6	11000.00	42.25 AV	54.00	-11.75	1.00 V	0	22.57	19.68
7	#16500.00	55.64 PK	68.20	-12.56	1.00 V	0	30.21	25.43

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



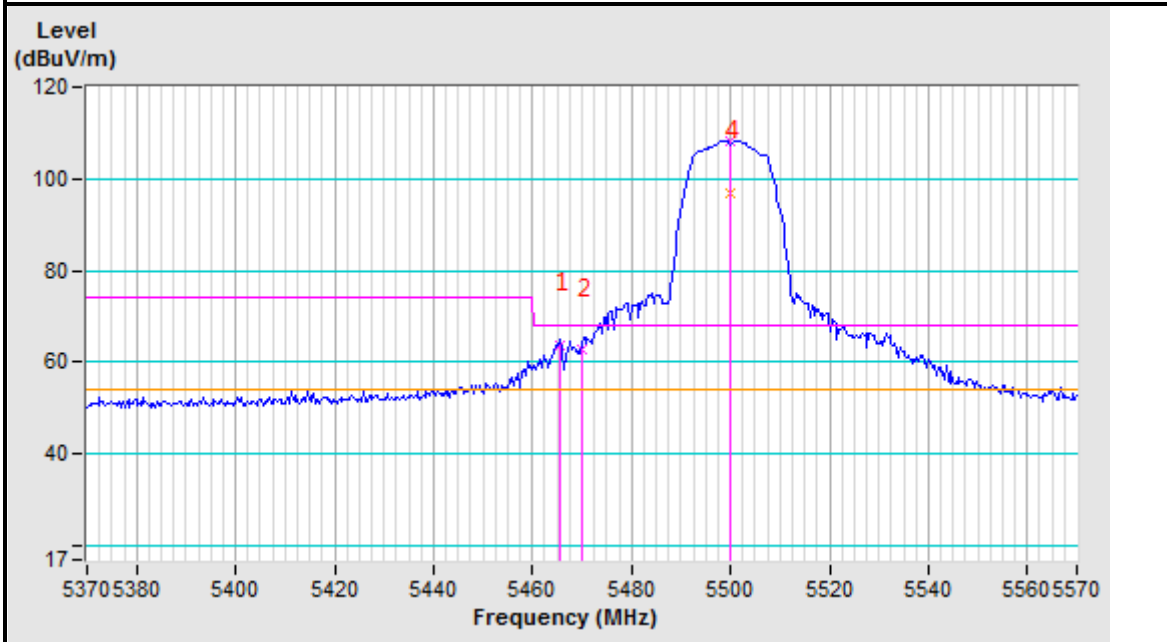


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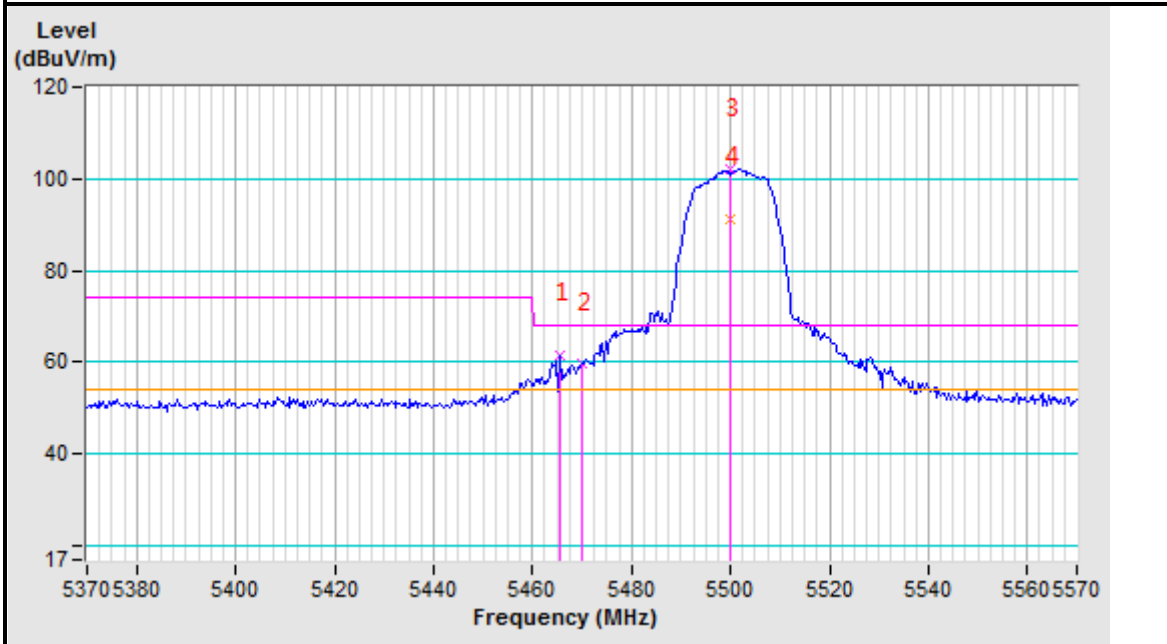
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5500MHz Horizontal



#### 5500MHz Vertical





<b>CHANNEL</b>	TX Channel 116	<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	48.68 PK	68.20	-19.52	1.00 H	88	39.59	9.09
2	*5580.00	103.85 PK			1.00 H	88	94.43	9.42
3	*5580.00	93.42 AV			1.00 H	88	84.00	9.42
4	11160.00	54.96 PK	74.00	-19.04	1.00 H	0	35.01	19.95
5	11160.00	41.36 AV	54.00	-12.64	1.00 H	0	21.41	19.95
6	#16740.00	54.63 PK	68.20	-13.57	1.00 H	0	28.43	26.20

**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	46.52 PK	68.20	-21.68	1.00 V	88	37.43	9.09
2	*5580.00	101.68 PK			1.00 V	88	92.26	9.42
3	*5580.00	90.42 AV			1.00 V	88	81.00	9.42
4	11160.00	53.42 PK	74.00	-20.58	1.00 V	0	33.47	19.95
5	11160.00	40.15 AV	54.00	-13.85	1.00 V	0	20.20	19.95
6	#16740.00	53.55 PK	68.20	-14.65	1.00 V	0	27.35	26.20

**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 greater than 20dB margin.
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)

<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	*5700.00	105.85 PK			1.69 H	250	95.98	9.87
2	*5700.00	94.39 AV			1.69 H	250	84.52	9.87
3	#5725.00	61.73 PK	68.20	-6.47	1.69 H	250	51.77	9.96
4	#5739.10	57.71 PK	68.20	-10.49	1.69 H	250	47.70	10.01
5	11400.00	53.75 PK	74.00	-20.25	1.00 H	0	33.40	20.35
6	11400.00	40.31 AV	54.00	-13.69	1.00 H	0	19.96	20.35
7	#17100.00	54.18 PK	68.20	-14.02	1.00 H	0	27.04	27.14
<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	*5700.00	100.25 PK			1.00 V	203	90.38	9.87
2	*5700.00	89.37 AV			1.00 V	203	79.50	9.87
3	#5725.00	55.39 PK	68.20	-12.81	1.00 V	350	45.43	9.96
4	#5730.13	56.64 PK	68.20	-11.56	1.00 V	203	46.67	9.97
5	11400.00	55.85 PK	74.00	-18.15	1.00 V	0	35.50	20.35
6	11400.00	41.75 AV	54.00	-12.25	1.00 V	0	21.40	20.35
7	#17100.00	56.75 PK	68.20	-11.45	1.00 V	0	29.61	27.14

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

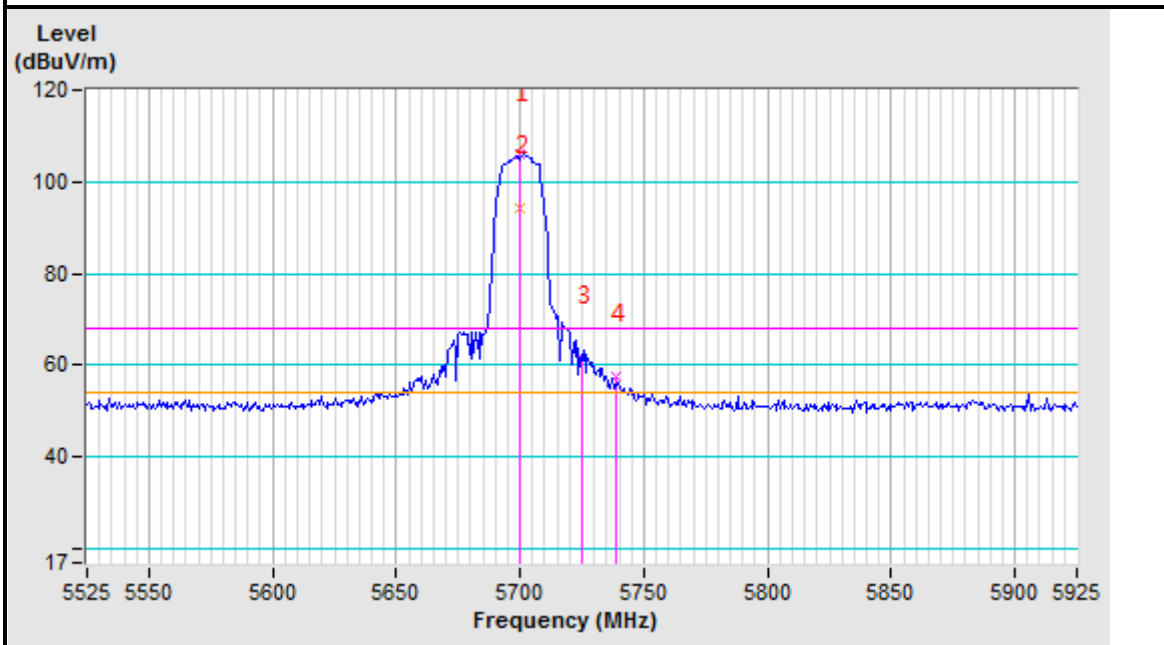


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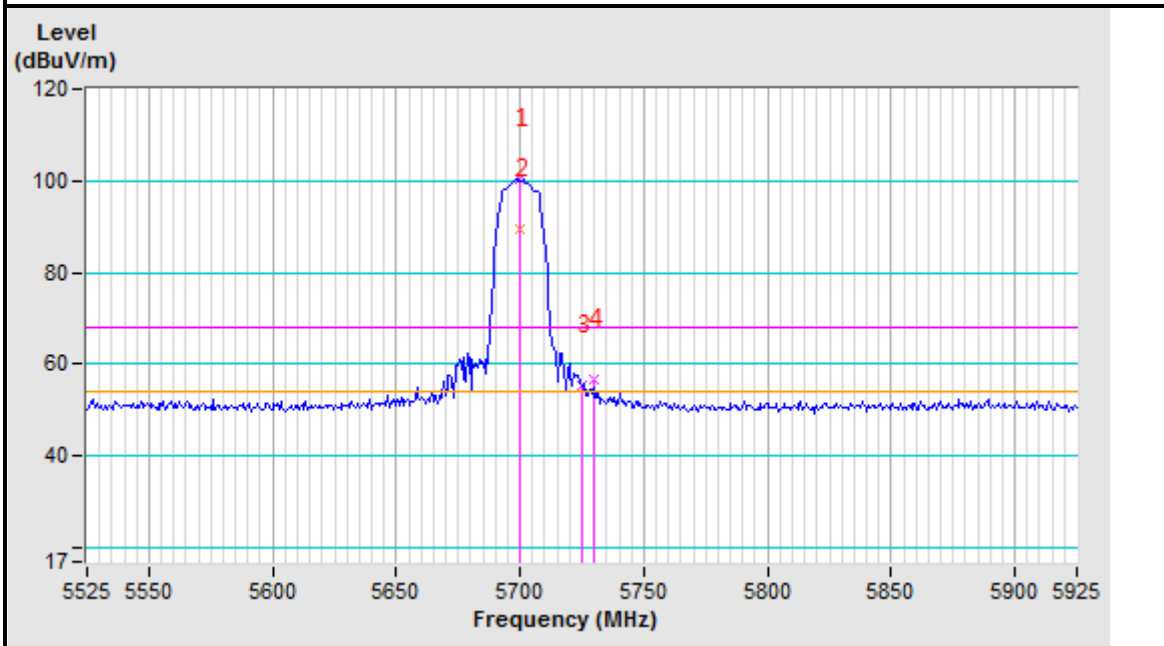
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5700MHz Horizontal



#### 5700MHz Vertical





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Test Report No.: RF2010WDG0259-2

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5463.59	59.00 PK	68.20	-9.20	1.17 H	257	49.92	9.08
2	#5470.00	56.69 PK	68.20	-11.51	1.17 H	257	47.60	9.09
3	*5500.00	107.83 PK			1.17 H	257	98.71	9.12
4	*5500.00	96.58 AV			1.17 H	257	87.46	9.12
5	11000.00	55.43 PK	74.00	-18.57	1.00 H	0	35.75	19.68
6	11000.00	42.67 AV	54.00	-11.33	1.00 H	0	22.99	19.68
7	#16500.00	52.75 PK	68.20	-15.45	1.00 H	0	27.32	25.43
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	#5462.31	55.63 PK	68.20	-12.57	1.00 V	156	46.55	9.08
2	#5470.00	55.27 PK	68.20	-12.93	1.00 V	156	46.18	9.09
3	*5500.00	102.04 PK			1.00 V	156	92.92	9.12
4	*5500.00	91.56 AV			1.00 V	156	82.44	9.12
5	11000.00	54.18 PK	74.00	-19.82	1.00 V	0	34.50	19.68
6	11000.00	41.57 AV	54.00	-12.43	1.00 V	0	21.89	19.68
7	#16500.00	50.15 PK	68.20	-18.05	1.00 V	0	24.72	25.43

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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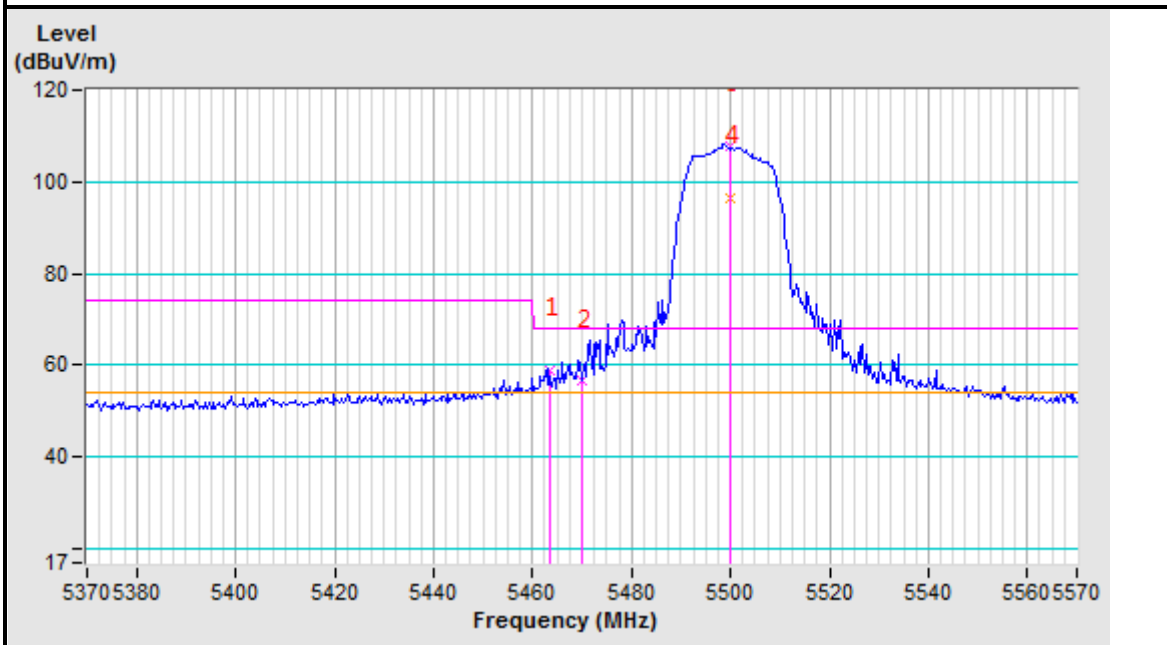


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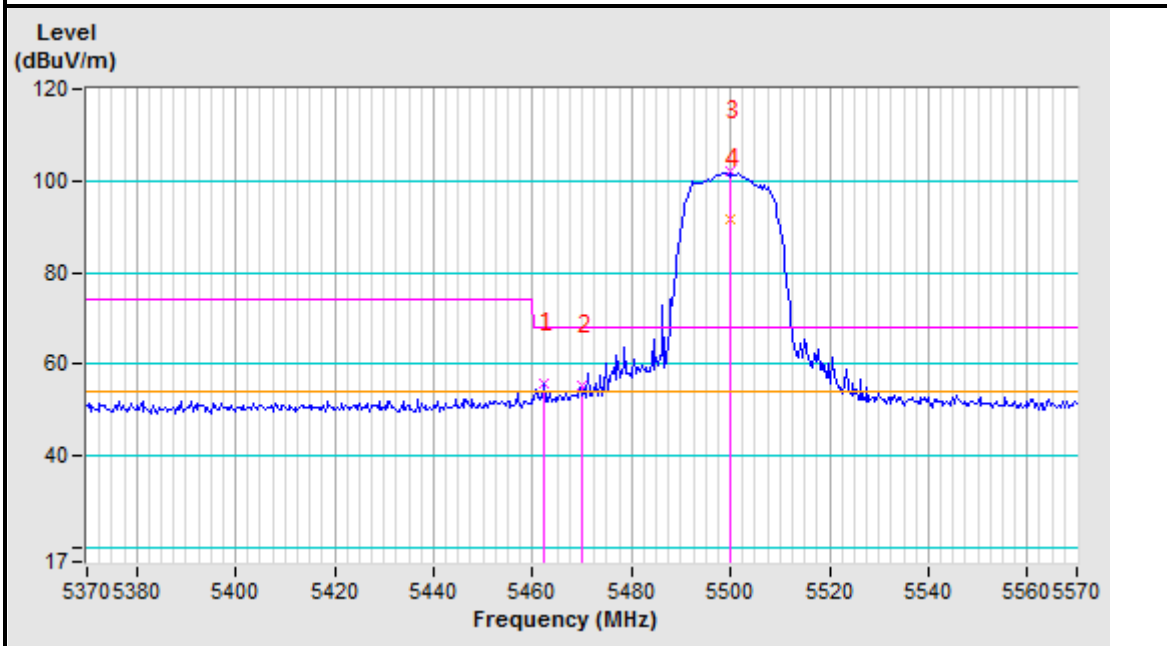
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5500MHz Horizontal



#### 5500MHz Vertical





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Test Report No.: RF2010WDG0259-2

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.42 PK	68.20	-17.78	1.00 H	244	41.33	9.09
2	*5580.00	104.89 PK			1.00 H	244	95.47	9.42
3	*5580.00	93.64 AV			1.00 H	244	84.22	9.42
4	11160.00	55.98 PK	74.00	-18.02	1.00 H	0	36.03	19.95
5	11160.00	43.75 AV	54.00	-10.25	1.00 H	0	23.80	19.95
6	#16740.00	53.74 PK	68.20	-14.46	1.00 H	0	27.54	26.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	53.42 PK	68.20	-14.78	1.00 V	244	44.33	9.09
2	*5580.00	102.14 PK			1.00 V	244	92.72	9.42
3	*5580.00	91.25 AV			1.00 V	244	81.83	9.42
4	11160.00	54.52 PK	74.00	-19.48	1.00 V	0	34.57	19.95
5	11160.00	42.12 AV	54.00	-11.88	1.00 V	0	22.17	19.95
6	#16740.00	52.89 PK	68.20	-15.31	1.00 V	0	26.69	26.20

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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Test Report No.: RF2010WDG0259-2

<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	106.50 PK			1.71 H	250	96.63	9.87
2	*5700.00	95.34 AV			1.71 H	250	85.47	9.87
3	#5725.00	59.37 PK	68.20	-8.83	1.72 H	251	49.41	9.96
4	#5735.26	58.10 PK	68.20	-10.10	1.72 H	251	48.10	10.00
5	11400.00	56.85 PK	74.00	-17.15	1.00 H	0	36.50	20.35
6	11400.00	45.75 AV	54.00	-8.25	1.00 H	0	25.40	20.35
7	#17100.00	56.84 PK	68.20	-11.36	1.00 H	0	29.70	27.14

**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	100.69 PK			1.87 V	210	90.82	9.87
2	*5700.00	88.67 AV			1.87 V	210	78.80	9.87
3	#5725.00	53.77 PK	68.20	-14.43	1.87 V	210	43.81	9.96
4	#5734.62	55.18 PK	68.20	-13.02	1.87 V	210	45.18	10.00
5	11400.00	54.22 PK	74.00	-19.78	1.00 V	0	33.87	20.35
6	11400.00	43.11 AV	54.00	-10.89	1.00 V	0	22.76	20.35
7	#17100.00	54.28 PK	68.20	-13.92	1.00 V	0	27.14	27.14

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



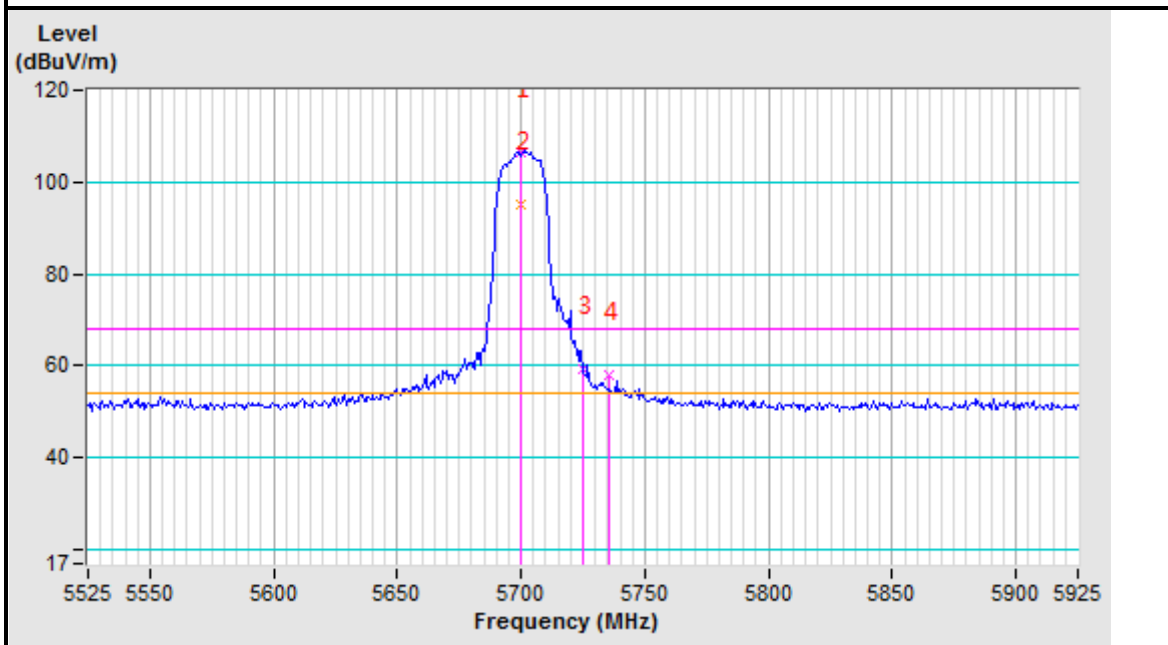


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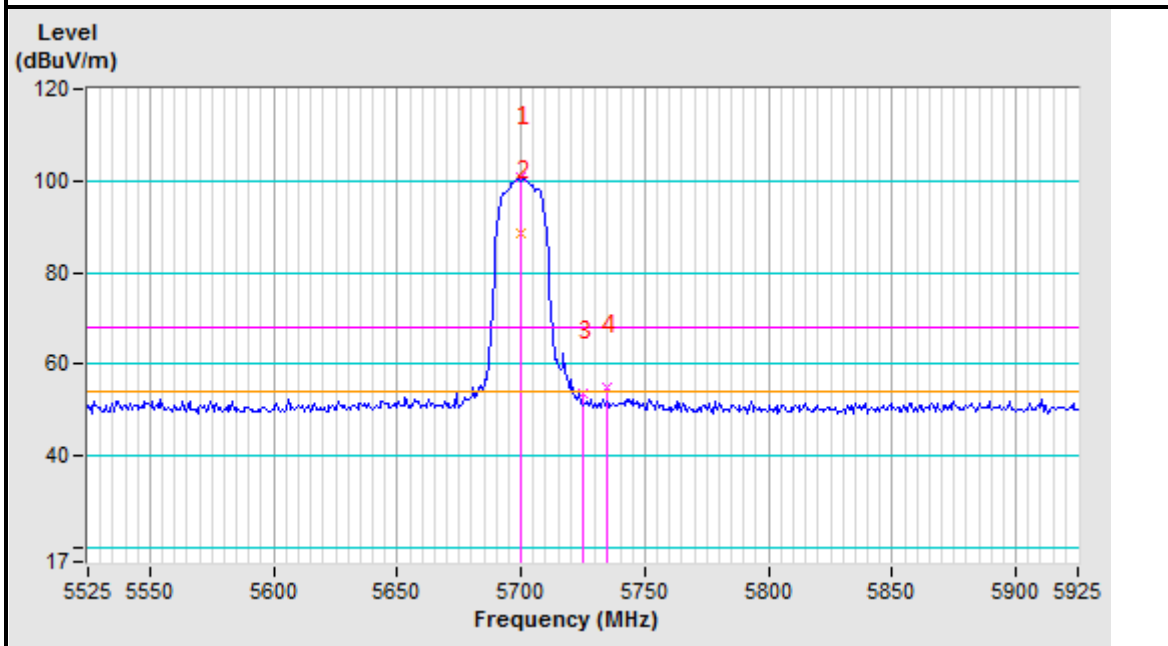
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5700MHz Horizontal



#### 5700MHz Vertical





802.11n (40MHz)

<b>CHANNEL</b>	TX Channel 102	<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	#5467.12	62.43 PK	68.20	-5.77	1.68 H	251	53.34	9.09
2	#5470.00	64.57 PK	68.20	-3.63	1.68 H	251	55.48	9.09
3	*5510.00	104.50 PK			1.68 H	251	95.34	9.16
4	*5510.00	93.26 AV			1.68 H	251	84.10	9.16
5	11020.00	60.58 PK	74.00	-13.42	1.00 H	0	40.87	19.71
6	11020.00	47.98 AV	54.00	-6.02	1.00 H	0	28.27	19.71
7	#16530.00	56.22 PK	68.20	-11.98	1.00 H	0	30.69	25.53

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	#5463.27	59.69 PK	68.20	-8.51	1.00 V	209	50.61	9.08
2	#5470.00	57.96 PK	68.20	-10.24	1.00 V	209	48.87	9.09
3	*5510.00	99.38 PK			1.00 V	209	90.22	9.16
4	*5510.00	88.15 AV			1.00 V	209	78.99	9.16
5	11020.00	59.88 PK	74.00	-14.12	1.00 V	0	40.17	19.71
6	11020.00	45.85 AV	54.00	-8.15	1.00 V	0	26.14	19.71
7	#16530.00	55.89 PK	68.20	-12.31	1.00 V	0	30.36	25.53

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

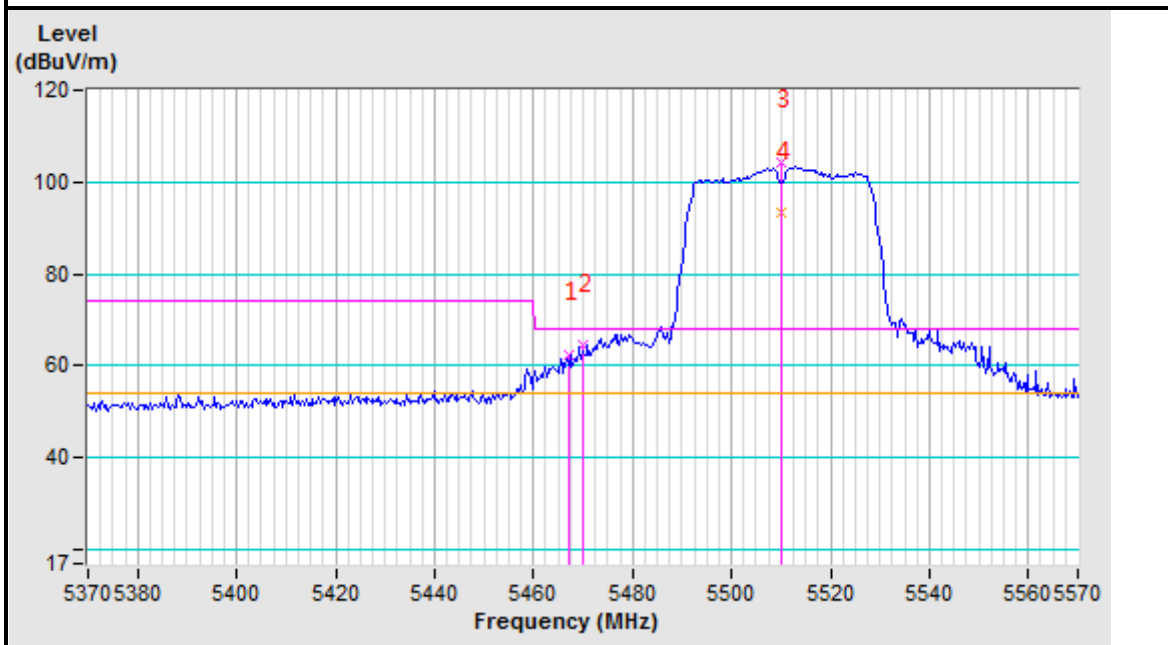


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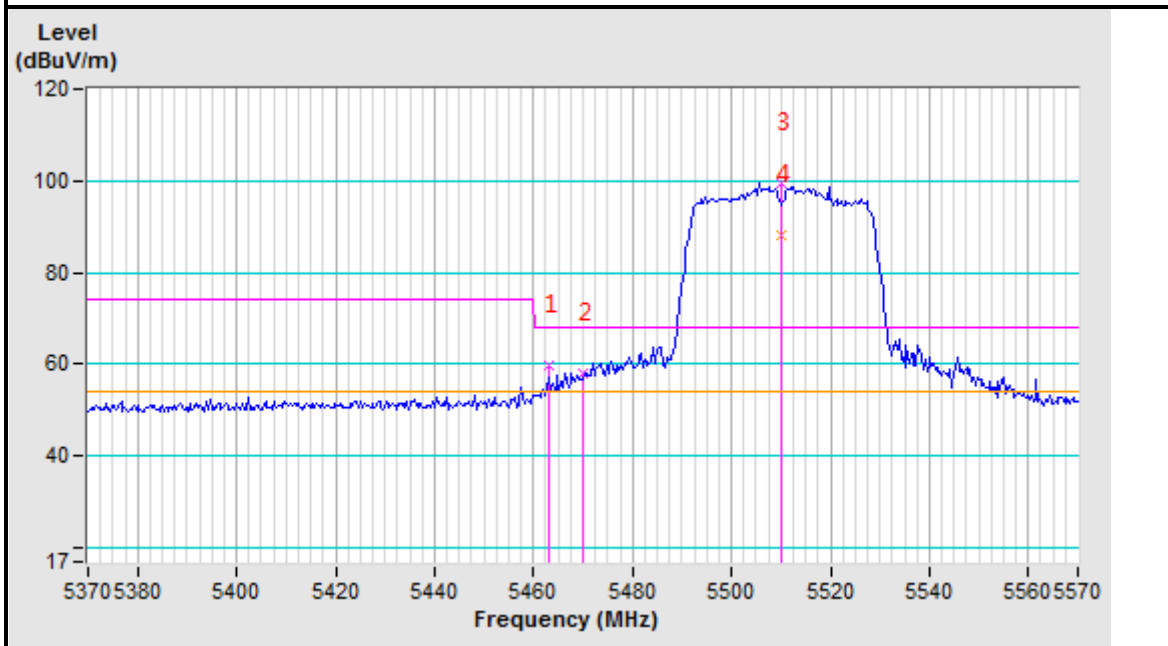
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5510MHz Horizontal



#### 5510MHz Vertical





CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.60 PK	68.20	-13.60	1.00 H	311	45.51	9.09
2	*5550.00	105.40 PK			1.00 H	311	96.09	9.31
3	*5550.00	96.20 AV			1.00 H	311	86.89	9.31
4	11100.00	57.60 PK	74.00	-16.40	1.00 H	311	37.76	19.84
5	11100.00	45.20 AV	54.00	-8.80	1.00 H	311	25.36	19.84
6	#16650.00	58.10 PK	68.20	-10.10	1.00 H	311	32.20	25.91

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	#5470.00	52.60 PK	68.20	-15.60	1.00 V	311	43.51	9.09
2	*5550.00	101.35 PK			1.00 V	311	92.04	9.31
3	*5550.00	92.60 AV			1.00 V	311	83.29	9.31
4	11100.00	56.30 PK	74.00	-17.70	1.00 V	311	36.46	19.84
5	11100.00	42.10 AV	54.00	-11.90	1.00 V	311	22.26	19.84
6	#16650.00	57.90 PK	68.20	-10.30	1.00 V	311	31.99	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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<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	106.65 PK			1.70 H	250	96.90	9.75
2	*5670.00	94.26 AV			1.70 H	250	84.51	9.75
3	#5725.00	56.77 PK	68.20	-11.43	1.70 H	250	46.81	9.96
4	#5728.84	59.41 PK	68.20	-8.79	1.70 H	250	49.44	9.97
5	11340.00	58.61 PK	74.00	-15.39	1.00 H	0	38.37	20.24
6	11340.00	42.44 AV	54.00	-11.56	1.00 H	0	22.20	20.24
7	#17010.00	55.34 PK	68.20	-12.86	1.00 H	0	28.31	27.03

**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	*5670.00	100.13 PK			1.00 V	135	90.38	9.75
2	*5670.00	89.36 AV			1.00 V	135	79.61	9.75
3	#5725.00	54.06 PK	68.20	-14.14	1.00 V	135	44.10	9.96
4	#5743.59	52.20 PK	68.20	-16.00	1.00 V	135	42.17	10.03
5	11340.00	56.34 PK	74.00	-17.66	1.00 V	0	36.10	20.24
6	11340.00	41.36 AV	54.00	-12.64	1.00 V	0	21.12	20.24
7	#17010.00	52.34 PK	68.20	-15.86	1.00 V	0	25.31	27.03

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

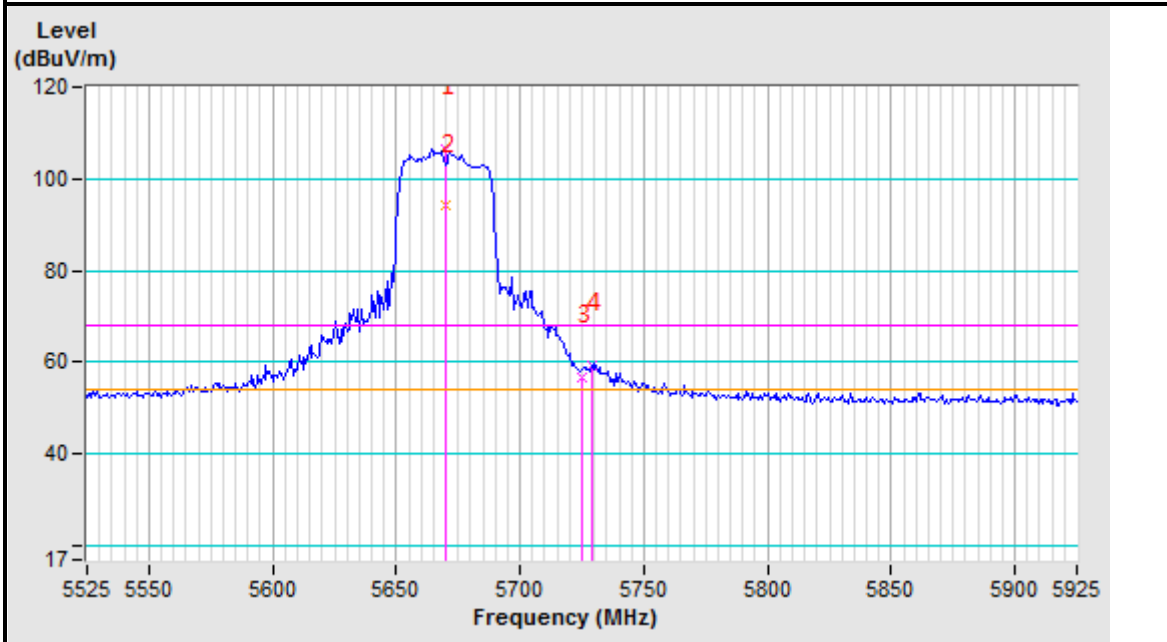


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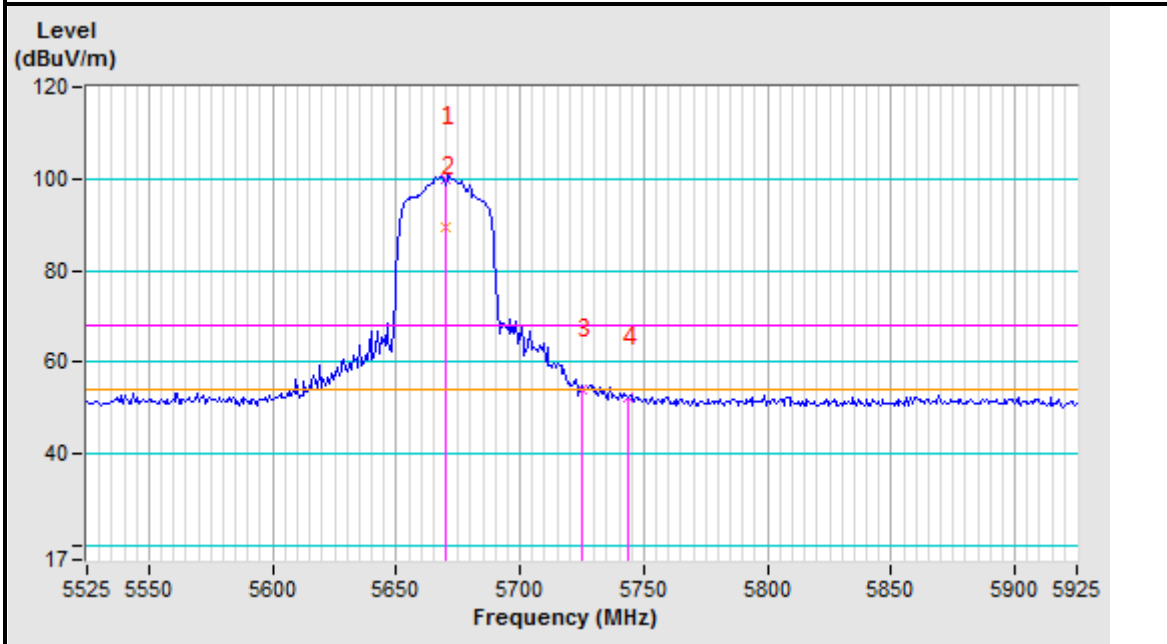
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5670MHz Horizontal



#### 5670MHz Vertical





802.11ac 80MHz

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

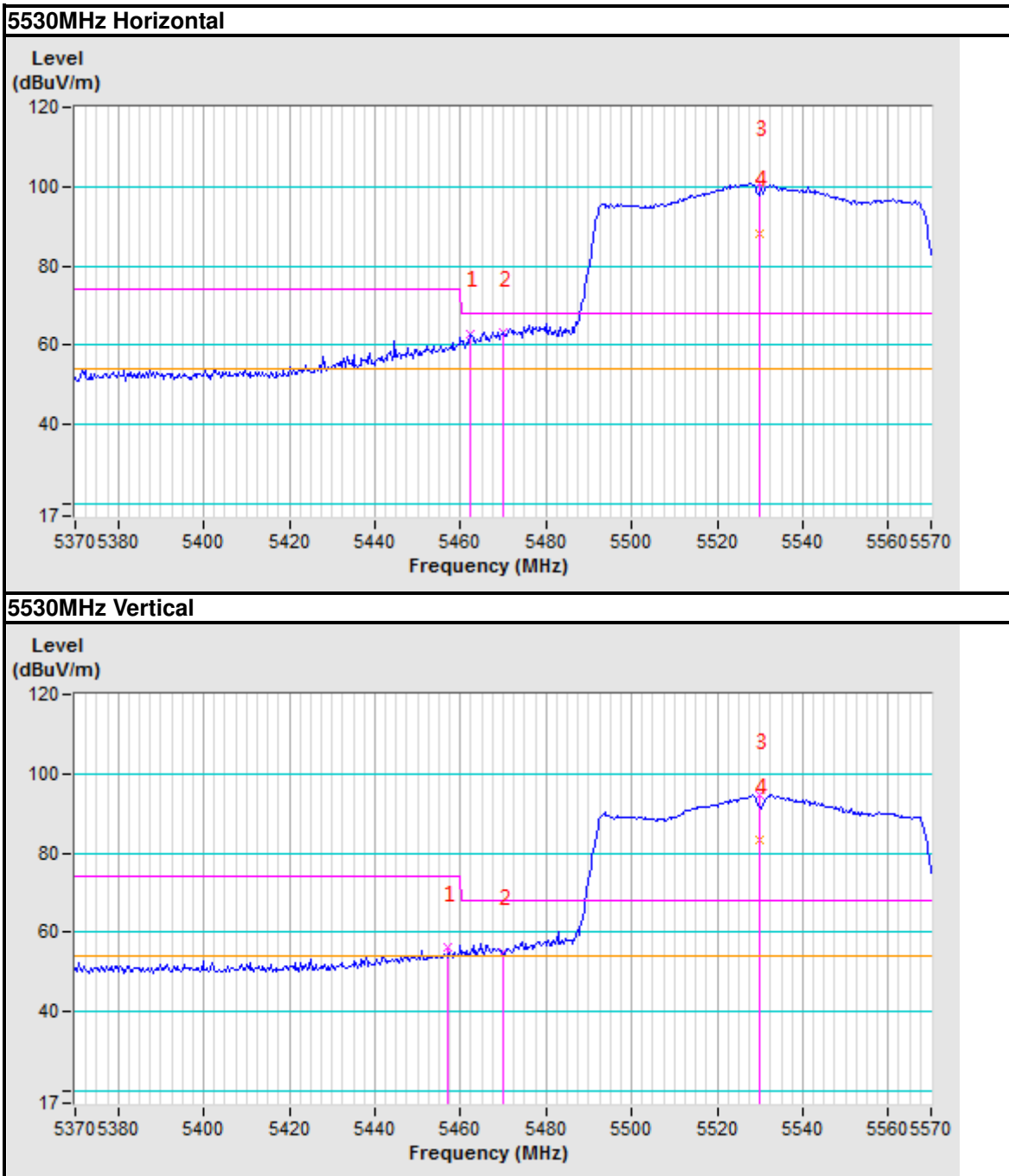
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5462.31	62.88 PK	68.20	-5.32	1.70 H	251	53.80	9.08
2	#5470.00	63.21 PK	68.20	-4.99	1.70 H	251	54.12	9.09
3	*5530.00	100.96 PK			1.70 H	251	91.73	9.23
4	*5530.00	88.16 AV			1.70 H	251	78.93	9.23
5	11060.00	53.56 PK	74.00	-20.44	1.00 H	0	33.78	19.78
6	11060.00	44.65 AV	54.00	-9.35	1.00 H	0	24.87	19.78
7	#16590.00	57.66 PK	68.20	-10.54	1.00 H	0	31.94	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	5457.18	56.16 PK	74.00	-17.84	1.42 V	158	47.08	9.08
2	#5470.00	55.03 PK	68.20	-13.17	1.42 V	158	45.94	9.09
3	*5530.00	94.56 PK			1.42 V	158	85.33	9.23
4	*5530.00	83.16 AV			1.42 V	158	73.93	9.23
5	11060.00	52.98 PK	74.00	-21.02	1.00 V	0	33.20	19.78
6	11060.00	42.75 AV	54.00	-11.25	1.00 V	0	22.97	19.78
7	#16590.00	56.75 PK	68.20	-11.45	1.00 V	0	31.03	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



### Band edge Plot







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**Test Report No.: RF2010WDG0259-2**

<b>CHANNEL</b>	TX Channel 122	<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	*5610.00	104.73 PK			1.25 H	320	95.20	9.53
2	*5610.00	93.15 AV			1.25 H	320	83.62	9.53
3	#5725.00	56.38 PK	68.20	-11.82	1.25 H	320	46.42	9.96
4	#5744.87	58.26 PK	68.20	-9.94	1.25 H	320	48.23	10.03
5	11220.00	57.96 PK	74.00	-16.04	1.00 H	0	37.91	20.05
6	11220.00	43.62 AV	54.00	-10.38	1.00 H	0	23.57	20.05
7	#16830.00	56.47 PK	68.20	-11.73	1.00 H	0	29.99	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	*5610.00	96.72 PK			1.00 V	194	87.19	9.53
2	*5610.00	85.34 AV			1.00 V	194	75.81	9.53
3	#5725.00	51.76 PK	68.20	-16.44	1.00 V	195	41.80	9.96
4	#5756.41	52.89 PK	68.20	-15.31	1.00 V	195	42.82	10.07
5	11220.00	54.63 PK	74.00	-19.37	1.00 V	0	34.58	20.05
6	11220.00	42.31 AV	54.00	-11.69	1.00 V	0	22.26	20.05
7	#16830.00	54.27 PK	68.20	-13.93	1.00 V	0	27.79	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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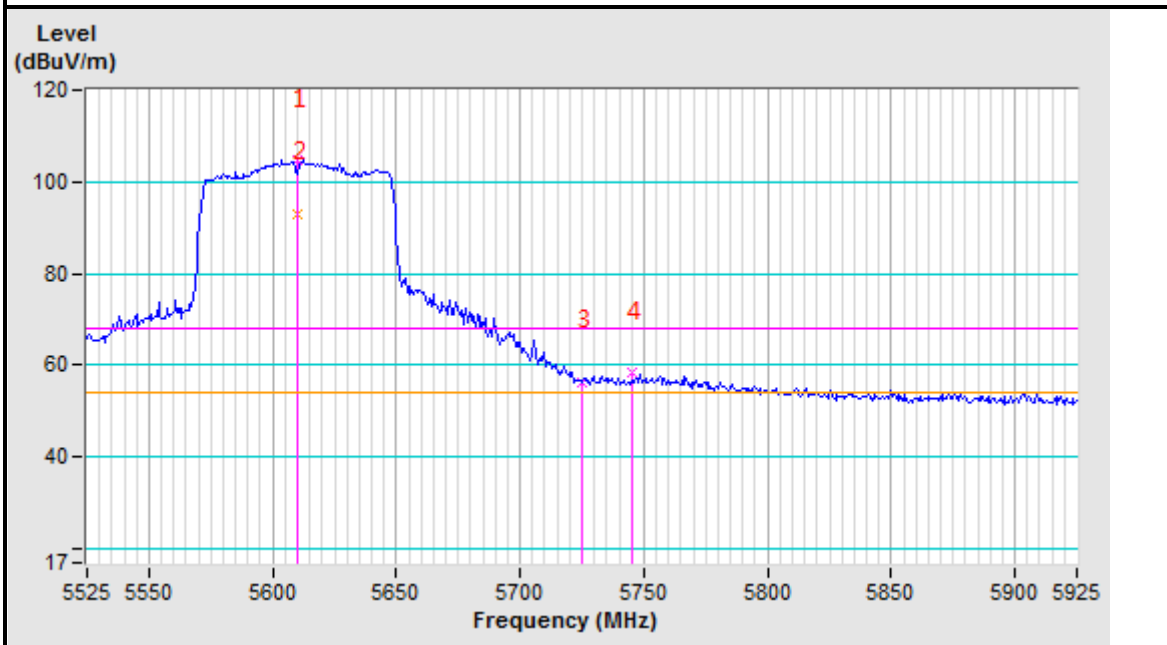


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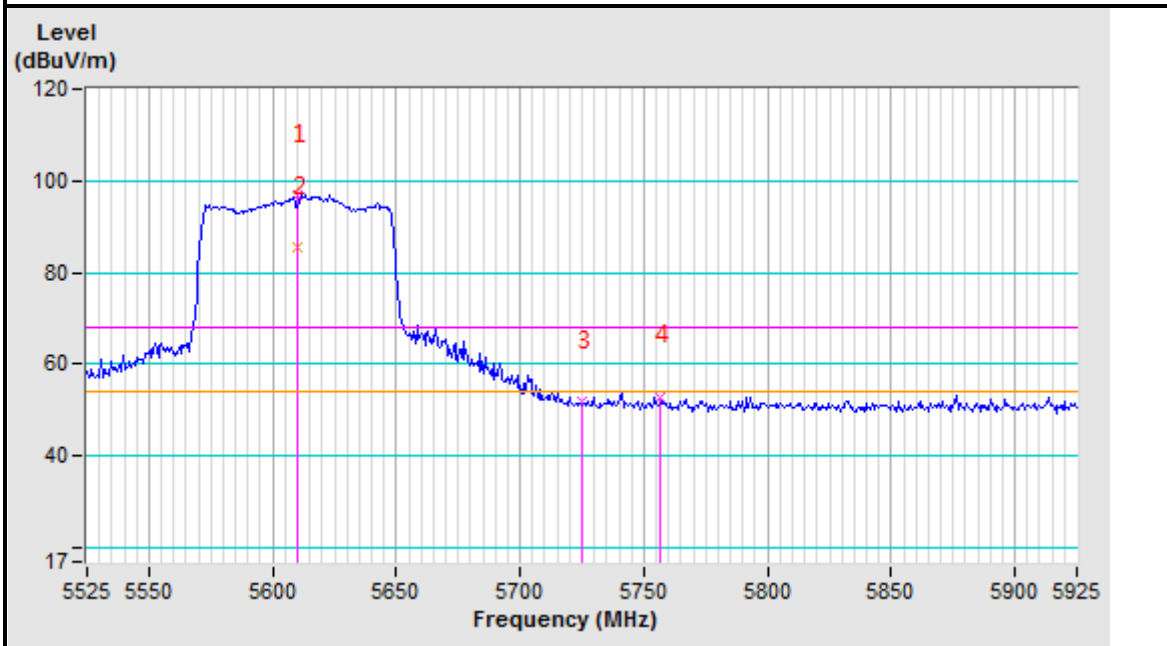
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5610MHz Horizontal



#### 5610MHz Vertical





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Test Report No.: RF2010WDG0259-2

Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5719.95	70.42 PK	110.79	-40.37	2.00 H	147	60.48	9.94
2	#5725.00	71.96 PK	122.20	-50.24	3.50 H	147	62.00	9.96
3	*5745.00	104.62 PK			1.00 H	142	94.59	10.03
4	*5745.00	92.86 AV			1.00 H	142	82.83	10.03
5	#5859.25	50.65 PK	109.61	-58.96	3.00 H	147	40.19	10.46
6	11490.00	56.10 PK	74.00	-17.90	1.00 H	0	35.61	20.49
7	11490.00	37.40 AV	54.00	-16.60	1.00 H	0	16.91	20.49
8	#17235.00	57.10 PK	68.20	-11.10	1.00 H	0	29.79	27.31

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	#5714.90	72.03 PK	109.37	-37.34	4.00 V	330	62.12	9.91
2	#5725.00	75.81 PK	122.20	-46.39	3.00 V	330	65.85	9.96
3	*5745.00	109.63 PK			1.00 V	135	99.60	10.03
4	*5745.00	99.04 AV			1.00 V	135	89.01	10.03
5	#5880.29	52.56 PK	101.27	-48.71	2.00 V	330	42.03	10.53
6	11490.00	57.36 PK	74.00	-16.64	1.00 V	0	36.87	20.49
7	11490.00	38.60 AV	54.00	-15.40	1.00 V	0	18.11	20.49
8	#17235.00	57.36 PK	68.20	-10.84	1.00 V	0	30.05	27.31

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

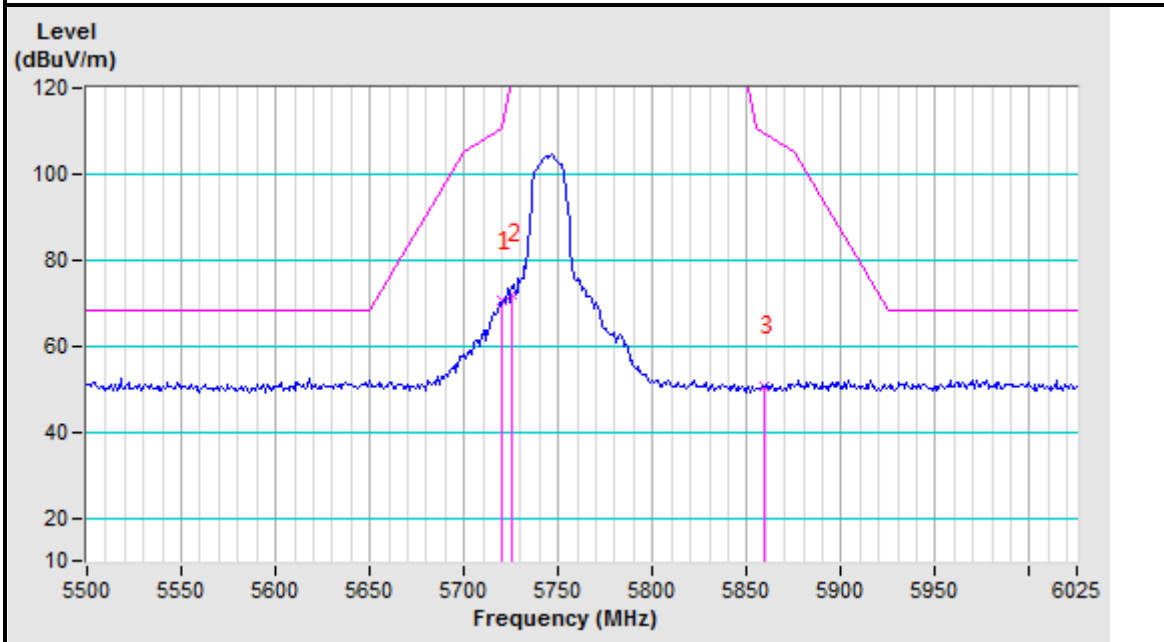
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No. 96, Guantai Road (Houjie Section), Houjie Town, Dongguan City, Guangdong Province. 523942. People's Republic of China.

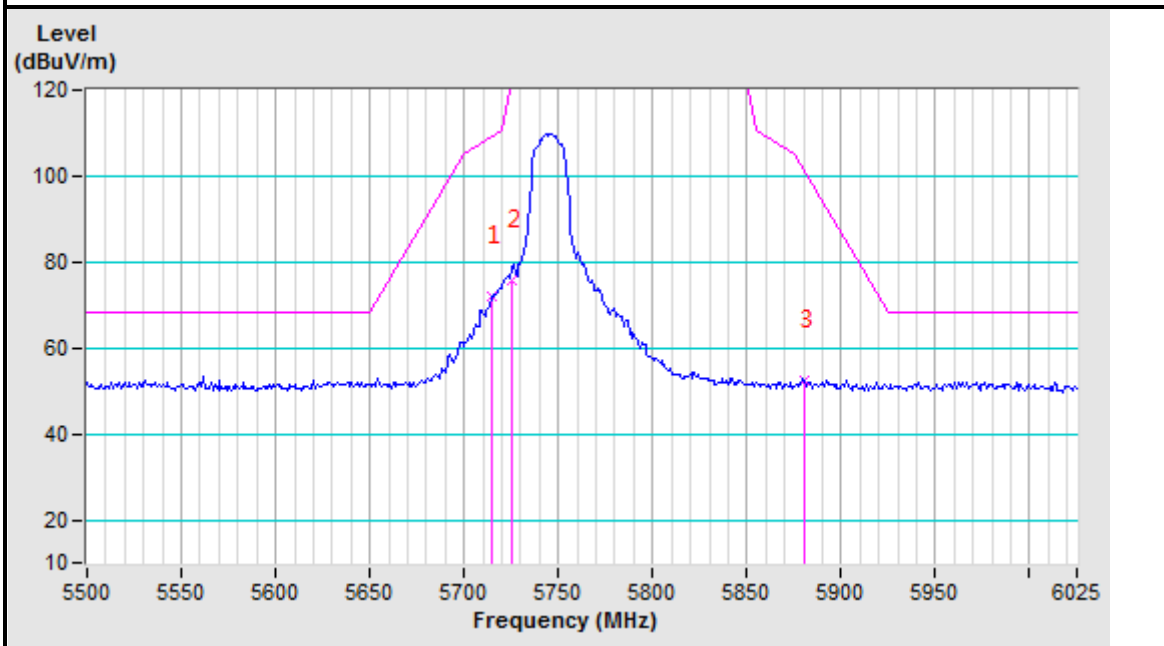
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**Band edge Plot**

**5745MHz Horizontal**



**5745MHz Vertical**





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**Test Report No.: RF2010WDG0259-2**

<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	#5718.27	52.06 PK	110.32	-58.26	2.50 H	299	42.13	9.93
2	*5785.00	108.55 PK			1.00 H	112	98.37	10.18
3	*5785.00	97.05 AV			1.00 H	112	86.87	10.18
4	#5861.78	54.56 PK	108.90	-54.34	3.00 H	299	44.10	10.46
5	#5934.13	53.85 PK	68.20	-14.35	1.50 H	299	43.12	10.73
6	11570.00	56.40 PK	74.00	-17.60	1.00 H	0	35.74	20.66
7	11570.00	45.30 AV	54.00	-8.70	1.00 H	0	24.64	20.66
8	#17355.00	56.90 PK	68.20	-11.30	1.00 H	0	29.44	27.46

**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	#5678.73	50.70 PK	89.50	-38.80	2.50 V	137	40.92	9.78
2	#5719.11	51.34 PK	110.55	-59.21	2.50 V	137	41.40	9.94
3	*5785.00	105.11 PK			1.00 V	112	94.93	10.18
4	*5785.00	93.08 AV			1.00 V	112	82.90	10.18
5	#5882.81	51.36 PK	99.40	-48.04	1.50 V	137	40.81	10.55
6	11570.00	58.30 PK	74.00	-15.70	1.00 V	0	37.64	20.66
7	11570.00	47.10 AV	54.00	-6.90	1.00 V	0	26.44	20.66
8	#17355.00	57.10 PK	68.20	-11.10	1.00 V	0	29.64	27.46

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

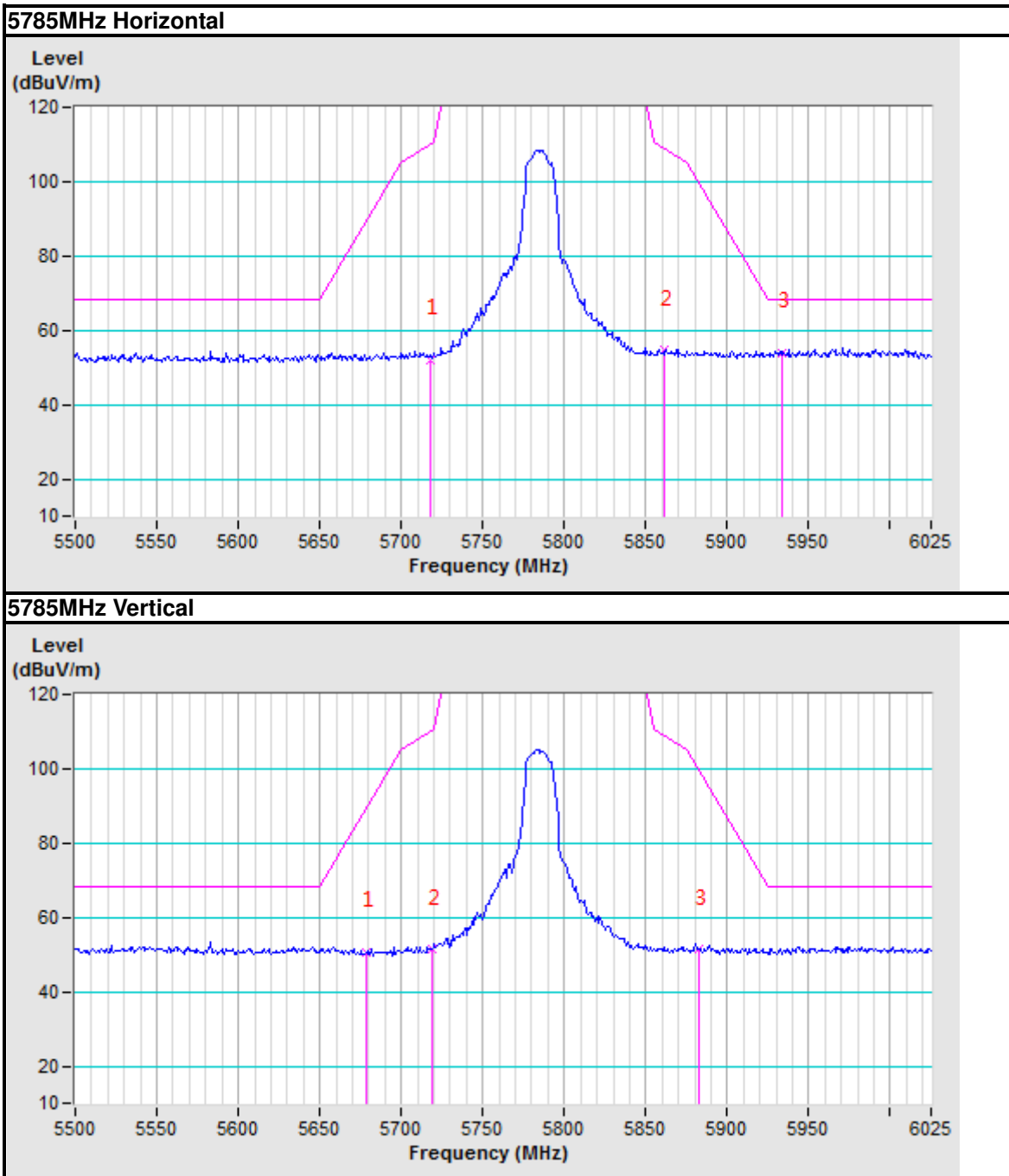
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### Band edge Plot





<b>CHANNEL</b>	TX Channel 165	<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	#5714.06	50.44 PK	109.14	-58.70	2.50 H	320	40.53	9.91
2	*5825.00	109.61 PK			1.00 H	25	99.28	10.33
3	*5825.00	98.42 AV			1.00 H	25	88.09	10.33
4	#5850.00	64.18 PK	122.20	-58.02	1.50 H	320	53.76	10.42
5	#5861.78	63.40 PK	108.90	-45.50	4.00 H	320	52.94	10.46
6	11650.00	58.11 PK	74.00	-15.89	1.00 H	123	37.27	20.84
7	11650.00	46.11 AV	54.00	-7.89	1.00 H	123	25.27	20.84
8	#17475.00	61.98 PK	68.20	-6.22	1.00 H	0	34.37	27.61

**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	#5700.60	50.18 PK	105.37	-55.19	3.00 V	136	40.31	9.87
2	*5825.00	105.01 PK			1.00 V	25	94.68	10.33
3	*5825.00	93.33 AV			1.00 V	25	83.00	10.33
4	#5850.00	64.36 PK	122.20	-57.84	2.00 V	136	53.94	10.42
5	#5862.62	57.16 PK	108.66	-51.50	2.00 V	136	46.69	10.47
6	11650.00	56.90 PK	74.00	-17.10	1.00 V	123	36.06	20.84
7	11650.00	44.40 AV	54.00	-9.60	1.00 V	123	23.56	20.84
8	#17475.00	60.20 PK	68.20	-8.00	1.00 V	0	32.59	27.61

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

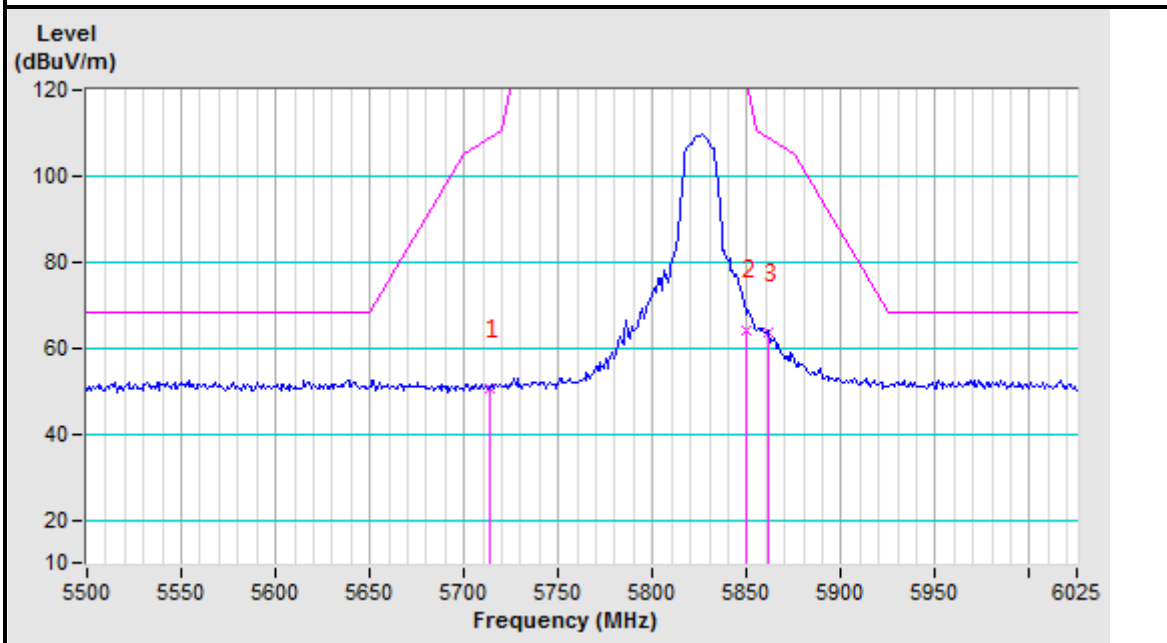


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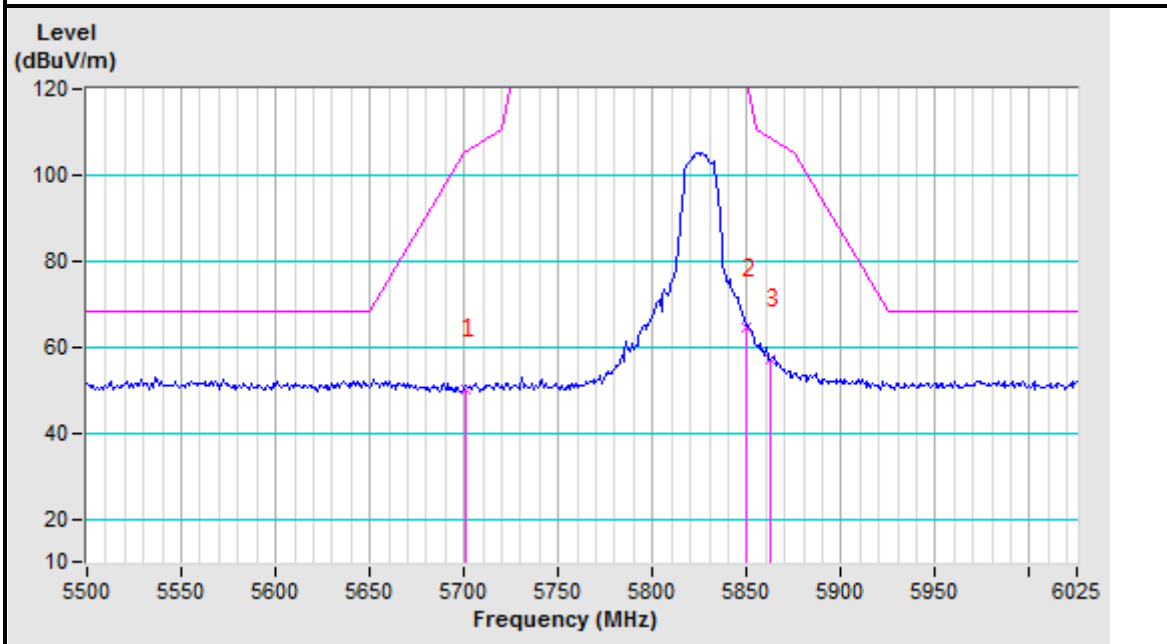
Test Report No.: RF2010WDG0259-2

### 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)

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	#5717.43	59.28 PK	110.08	-50.80	1.50 H	151	49.35	9.93
2	#5725.00	68.47 PK	122.20	-53.73	2.00 H	151	58.51	9.96
3	*5745.00	104.69 PK			1.00 H	52	94.66	10.03
4	*5745.00	92.88 AV			1.00 H	52	82.85	10.03
5	#5865.14	53.49 PK	107.96	-54.47	1.50 H	151	43.01	10.48
6	11490.00	54.32 PK	74.00	-19.68	1.00 H	0	33.83	20.49
7	11490.00	42.69 AV	54.00	-11.31	1.00 H	0	22.20	20.49
8	#17235.00	58.12 PK	68.20	-10.08	1.00 H	0	30.81	27.31

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	#5722.48	71.25 PK	116.45	-45.20	1.50 V	316	61.31	9.94
2	#5725.00	77.10 PK	122.20	-45.10	3.50 V	316	67.14	9.96
3	*5745.00	108.39 PK			1.00 V	52	98.36	10.03
4	*5745.00	98.18 AV			1.00 V	52	88.15	10.03
5	#5865.14	53.90 PK	107.96	-54.06	4.00 V	316	43.42	10.48
6	11490.00	56.32 PK	74.00	-17.68	1.00 V	0	35.83	20.49
7	11490.00	44.15 AV	54.00	-9.85	1.00 V	0	23.66	20.49
8	#17235.00	52.17 PK	68.20	-16.03	1.00 V	0	24.86	27.31

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

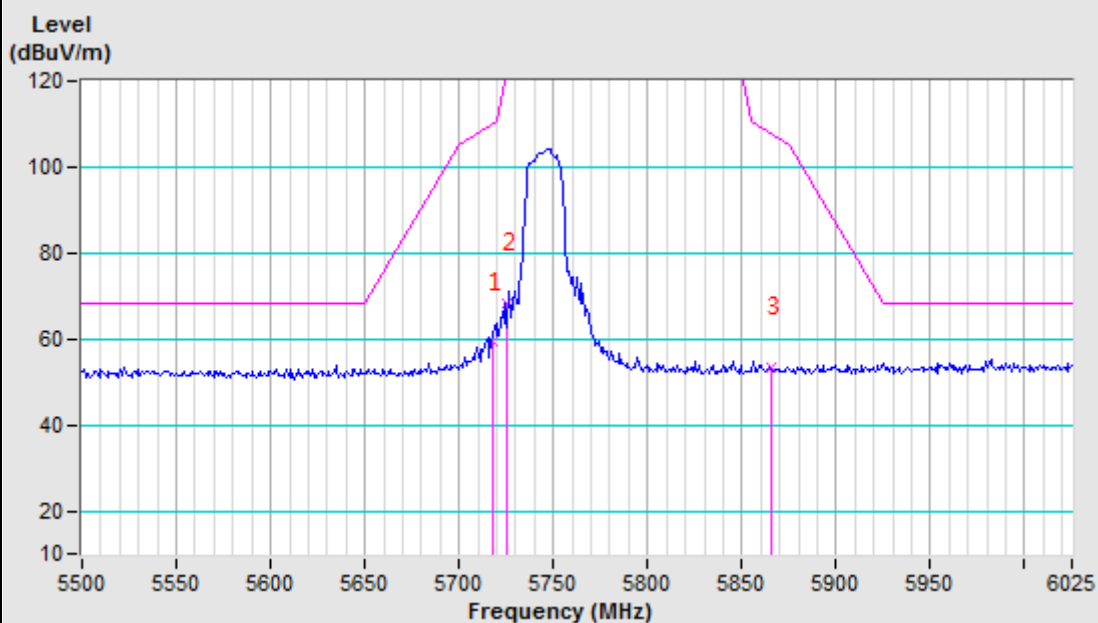


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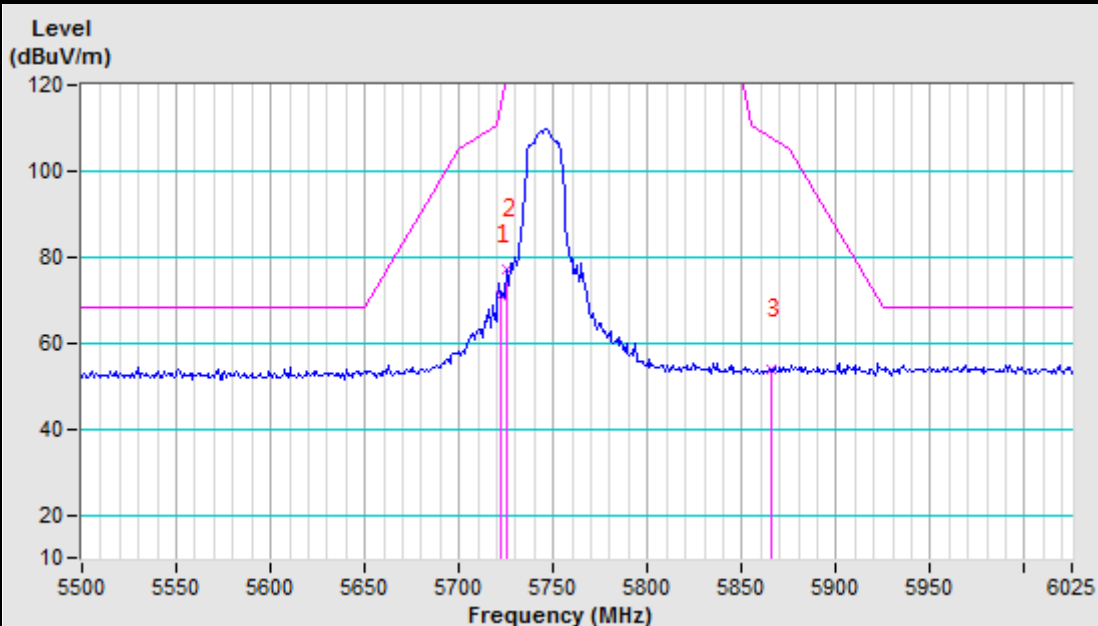
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5745MHz Horizontal



#### 5745MHz Vertical





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Test Report No.: RF2010WDG0259-2

<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	#5703.12	53.22 PK	106.08	-52.86	4.00 H	314	43.35	9.87
2	#5714.90	56.59 PK	109.37	-52.78	3.00 H	314	46.68	9.91
3	*5785.00	111.89 PK			1.00 H	69	101.71	10.18
4	*5785.00	95.36 AV			1.00 H	69	85.18	10.18
5	#5857.57	56.23 PK	110.08	-53.85	3.00 H	314	45.78	10.45
6	11570.00	57.85 PK	74.00	-16.15	1.00 H	0	37.19	20.66
7	11570.00	45.26 AV	54.00	-8.74	1.00 H	0	24.60	20.66
8	#17355.00	57.54 PK	68.20	-10.66	1.00 H	0	30.08	27.46

**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	#5691.35	52.43 PK	98.82	-46.39	2.00 V	136	42.60	9.83
2	#5715.75	52.95 PK	109.61	-56.66	1.00 V	136	43.02	9.93
3	*5785.00	108.45 PK			1.00 V	69	98.27	10.18
4	*5785.00	91.56 AV			1.00 V	69	81.38	10.18
5	#5859.25	54.68 PK	109.61	-54.93	3.00 V	136	44.22	10.46
6	11570.00	56.55 PK	74.00	-17.45	1.00 V	0	35.89	20.66
7	11570.00	42.12 AV	54.00	-11.88	1.00 V	0	21.46	20.66
8	#17355.00	56.12 PK	68.20	-12.08	1.00 V	0	28.66	27.46

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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Dongguan Branch

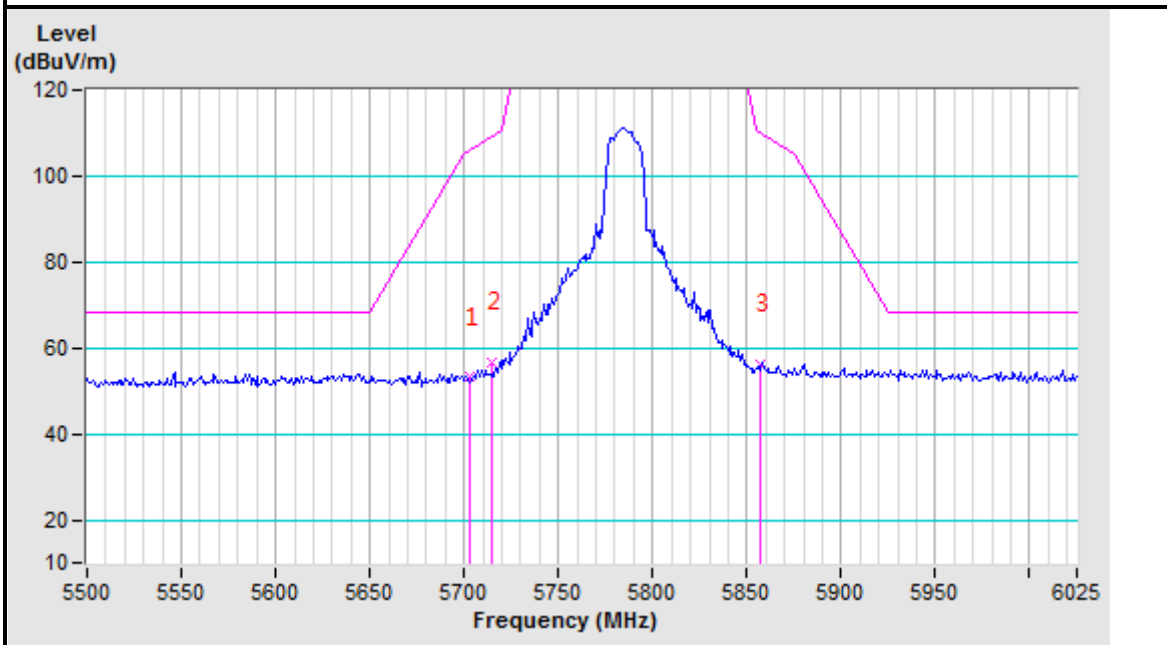
No. 96, Guantai Road (Houjie Section), Houjie  
Town, Dongguan City, Guangdong Province.  
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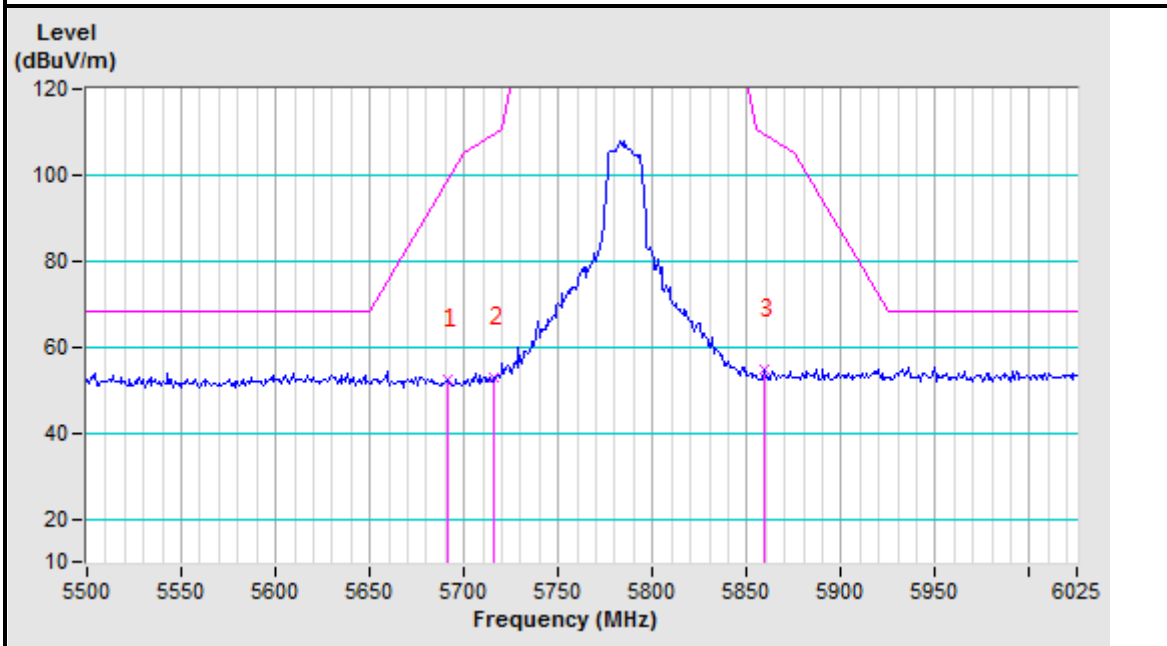


### Band edge Plot

#### 5785MHz Horizontal



#### 5785MHz Vertical





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Test Report No.: RF2010WDG0259-2

<b>CHANNEL</b>	TX Channel 165	<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	#5717.43	50.26 PK	110.08	-59.82	1.50 H	328	40.33	9.93
2	*5825.00	112.45 PK			1.00 H	145	102.12	10.33
3	*5825.00	93.89 AV			1.00 H	145	83.56	10.33
4	#5850.00	76.19 PK	122.20	-46.01	2.00 H	328	65.77	10.42
5	#5859.25	68.97 PK	109.61	-40.64	3.00 H	328	58.51	10.46
6	11650.00	57.15 PK	74.00	-16.85	1.00 H	0	36.31	20.84
7	11650.00	40.62 AV	54.00	-13.38	1.00 H	0	19.78	20.84
8	#17475.00	56.25 PK	68.20	-11.95	1.00 H	0	28.64	27.61

**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	#5713.22	49.74 PK	108.90	-59.16	1.00 V	181	39.83	9.91
2	*5825.00	106.00 PK			1.00 V	145	95.67	10.33
3	*5825.00	88.30 AV			1.00 V	145	77.97	10.33
4	#5850.00	65.71 PK	122.20	-56.49	1.50 V	181	55.29	10.42
5	#5856.73	62.85 PK	110.31	-47.46	3.50 V	181	52.40	10.45
6	11650.00	55.26 PK	74.00	-18.74	1.00 V	0	34.42	20.84
7	11650.00	39.52 AV	54.00	-14.48	1.00 V	0	18.68	20.84
8	#17475.00	55.17 PK	68.20	-13.03	1.00 V	0	27.56	27.61

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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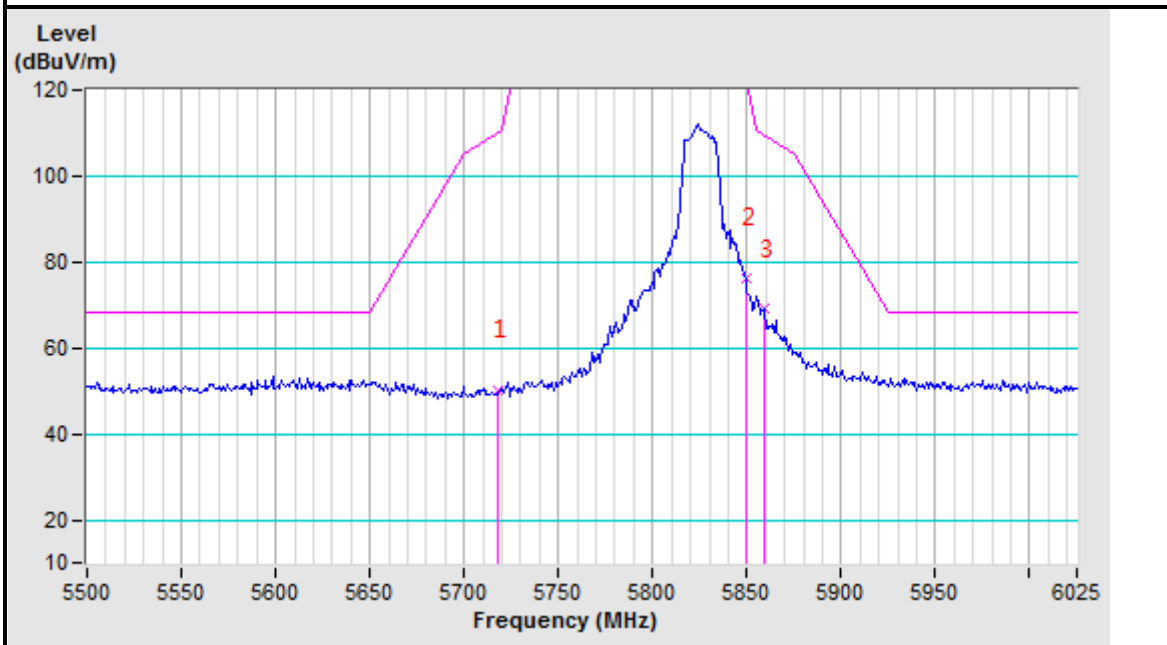


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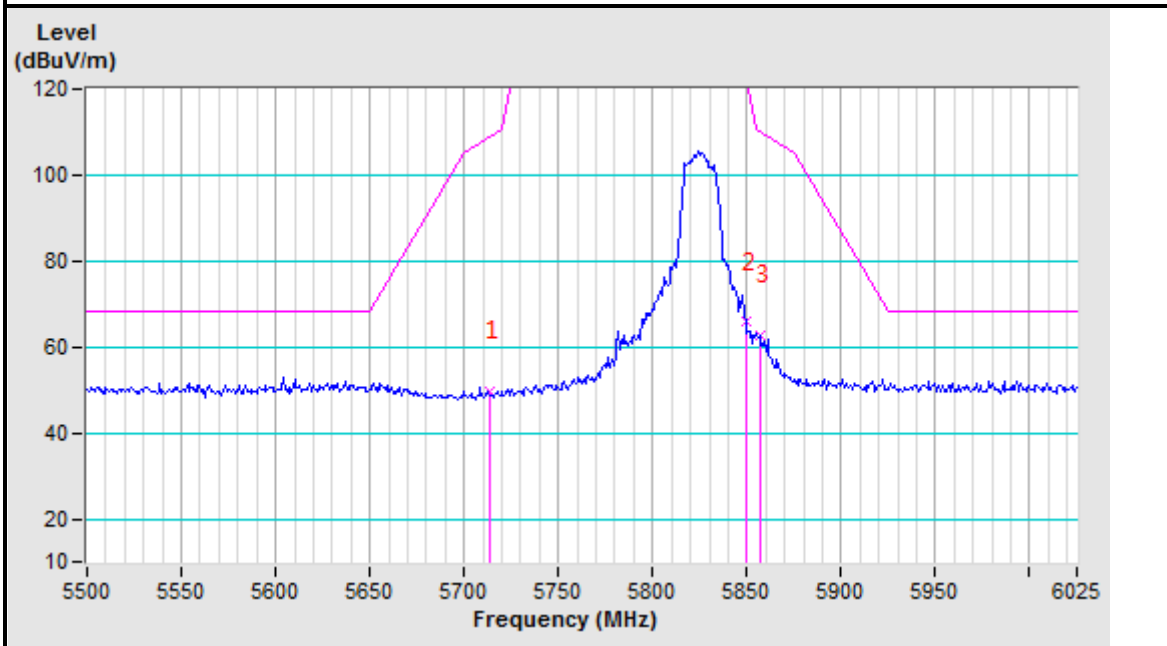
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5825MHz Horizontal



#### 5825MHz Vertical



802.11n (40MHz)

<b>CHANNEL</b>	TX Channel 151	<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	#5709.86	72.44 PK	107.96	-35.52	2.00 H	53	62.54	9.90
2	#5725.00	73.73 PK	122.20	-48.47	2.00 H	53	63.77	9.96
3	*5755.00	106.51 PK			1.00 H	258	96.44	10.07
4	*5755.00	94.42 AV			1.00 H	258	84.35	10.07
5	#5876.08	54.35 PK	104.40	-50.05	2.00 H	53	43.83	10.52
6	11510.00	56.14 PK	74.00	-17.86	1.00 H	0	35.61	20.53
7	11510.00	40.12 AV	54.00	-13.88	1.00 H	0	19.59	20.53
8	#17265.00	59.99 PK	68.20	-8.21	1.00 H	0	32.64	27.35

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	#5717.43	55.92 PK	110.08	-54.16	1.00 V	140	45.99	9.93
2	#5725.00	60.27 PK	122.20	-61.93	1.00 V	140	50.31	9.96
3	*5755.00	103.09 PK			1.00 V	258	93.02	10.07
4	*5755.00	91.97 AV			1.00 V	258	81.90	10.07
5	#5864.30	44.82 PK	108.19	-63.37	1.00 V	140	34.34	10.48
6	11510.00	54.55 PK	74.00	-19.45	1.00 V	0	34.02	20.53
7	11510.00	37.64 AV	54.00	-16.36	1.00 V	0	17.11	20.53
8	#17265.00	57.26 PK	68.20	-10.94	1.00 V	0	29.91	27.35

**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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

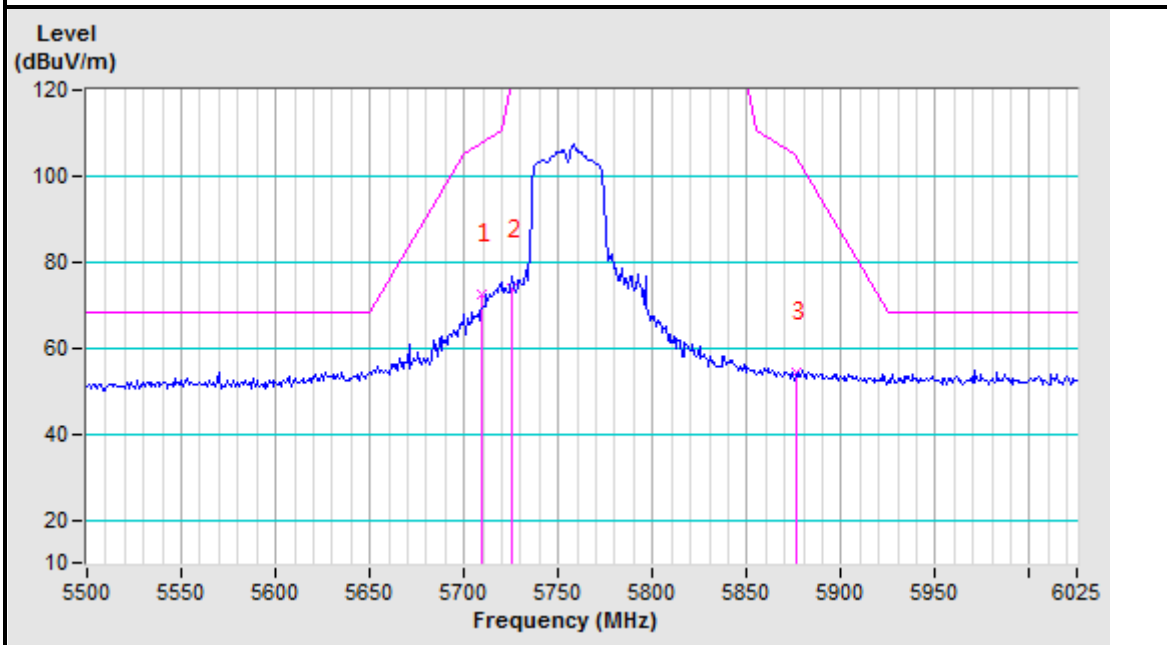


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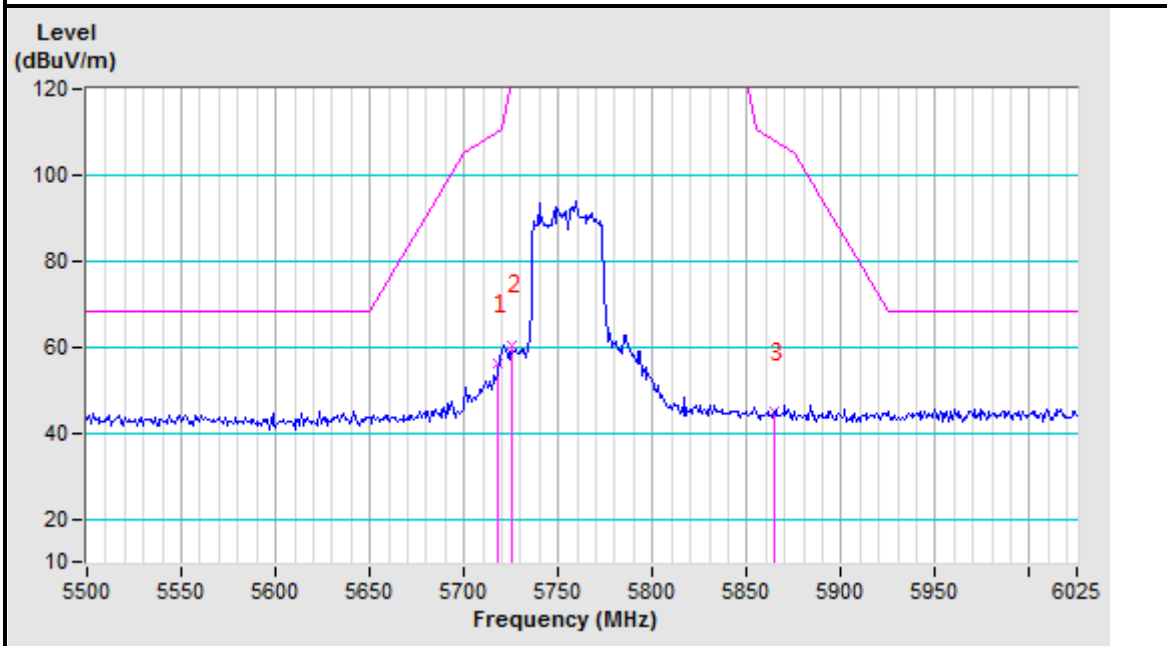
Test Report No.: RF2010WDG0259-2

### Band edge Plot

#### 5755MHz Horizontal



#### 5755MHz Vertical







<b>CHANNEL</b>	TX Channel 159	<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	#5714.90	58.28 PK	109.37	-51.09	1.66 H	48	48.37	9.91
2	*5795.00	106.71 PK			1.00 H	278	96.49	10.22
3	*5795.00	94.68 AV			1.00 H	278	84.46	10.22
4	#5850.00	61.64 PK	122.20	-60.56	1.66 H	48	51.22	10.42
5	#5862.62	59.07 PK	108.66	-49.59	1.66 H	48	48.60	10.47
6	11590.00	57.77 PK	74.00	-16.23	1.00 H	0	37.06	20.71
7	11590.00	39.64 AV	54.00	-14.36	1.00 H	0	18.93	20.71
8	#17385.00	60.32 PK	68.20	-7.88	1.00 H	0	32.82	27.50
<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	#5713.22	54.25 PK	108.90	-54.65	1.00 V	141	44.34	9.91
2	*5795.00	103.55 PK			1.00 V	278	93.33	10.22
3	*5795.00	92.34 AV			1.00 V	278	82.12	10.22
4	#5850.00	56.70 PK	122.20	-65.50	1.00 V	141	46.28	10.42
5	#5862.62	54.94 PK	108.66	-53.72	1.00 V	141	44.47	10.47
6	11590.00	57.12 PK	74.00	-16.88	1.00 V	0	36.41	20.71
7	11590.00	38.25 AV	54.00	-15.75	1.00 V	0	17.54	20.71
8	#17385.00	58.68 PK	68.20	-9.52	1.00 V	0	31.18	27.50

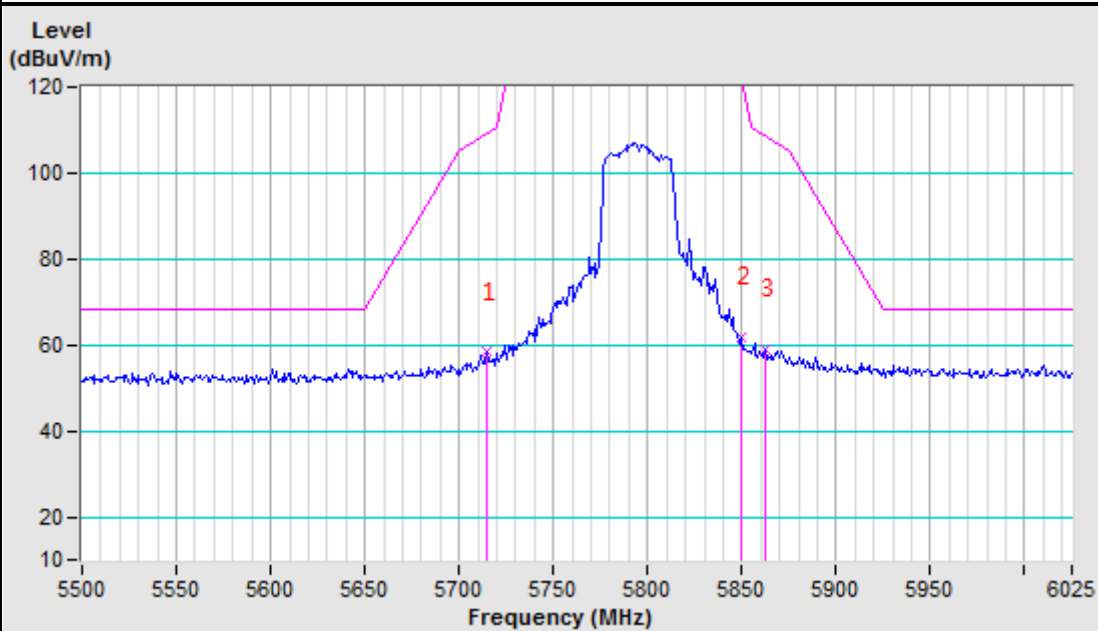
**REMARKS:**

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

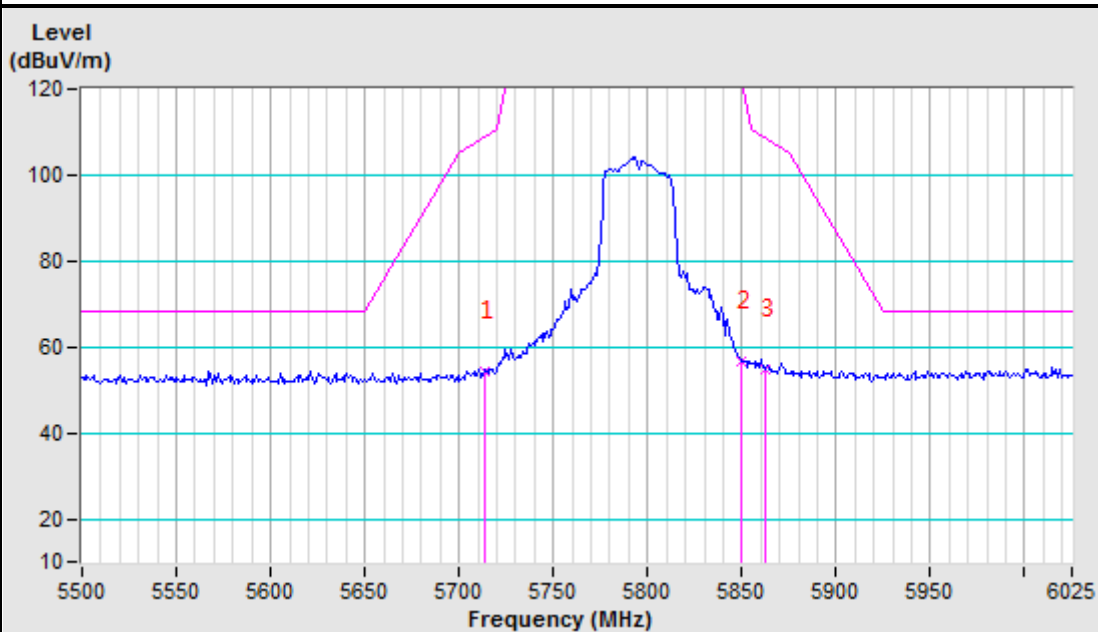


### Band edge Plot

#### 5795MHz Horizontal



#### 5795MHz Vertical





802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5713.22	76.98 PK	108.90	-31.92	1.00 H	52	67.07	9.91
2	#5725.00	76.50 PK	122.20	-45.70	1.00 H	52	66.54	9.96
3	*5775.00	105.26 PK			1.00 H	165	95.12	10.14
4	*5775.00	93.86 AV			1.00 H	165	83.72	10.14
5	#5850.00	73.85 PK	122.20	-48.35	1.00 H	52	63.43	10.42
6	11550.00	53.62 PK	74.00	-20.38	1.00 H	0	33.00	20.62
7	11550.00	36.84 AV	54.00	-17.16	1.00 H	0	16.22	20.62
8	#17325.00	57.65 PK	68.20	-10.55	1.00 H	0	30.22	27.43

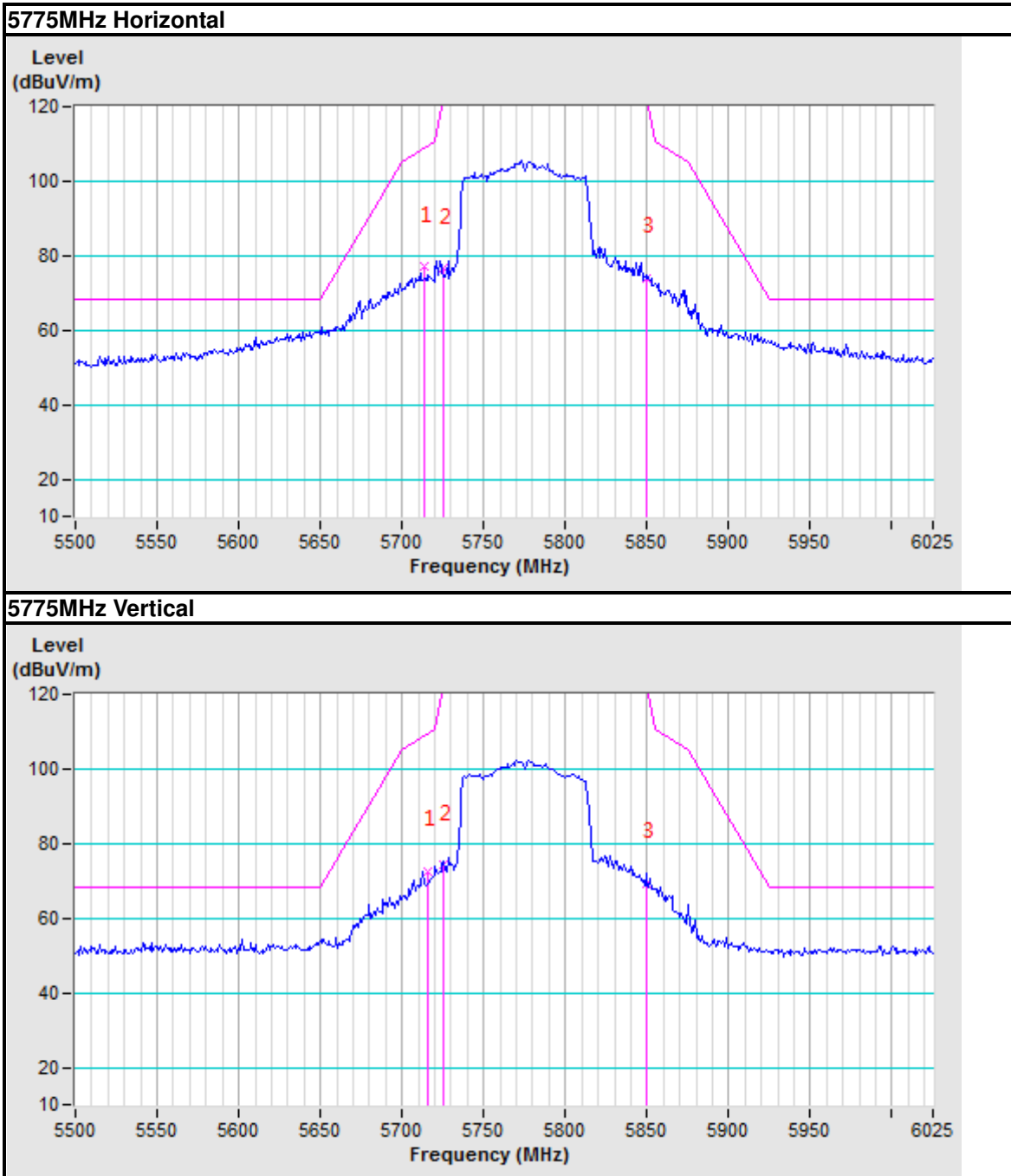
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	#5715.75	72.44 PK	109.61	-37.17	1.00 V	140	62.51	9.93
2	#5725.00	74.10 PK	122.20	-48.10	1.00 V	140	64.14	9.96
3	*5775.00	101.43 PK			1.00 V	165	91.29	10.14
4	*5775.00	93.47 AV			1.00 V	165	83.33	10.14
5	#5850.00	69.40 PK	122.20	-52.80	1.00 V	140	58.98	10.42
6	11550.00	51.64 PK	74.00	-22.36	1.00 V	0	31.02	20.62
7	11550.00	34.27 AV	54.00	-19.73	1.00 V	0	13.65	20.62
8	#17325.00	55.55 PK	68.20	-12.65	1.00 V	0	28.12	27.43

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**Band edge Plot**





### 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

- NOTES:**
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. 17,21
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 17,21
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 17,21
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 17,21
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

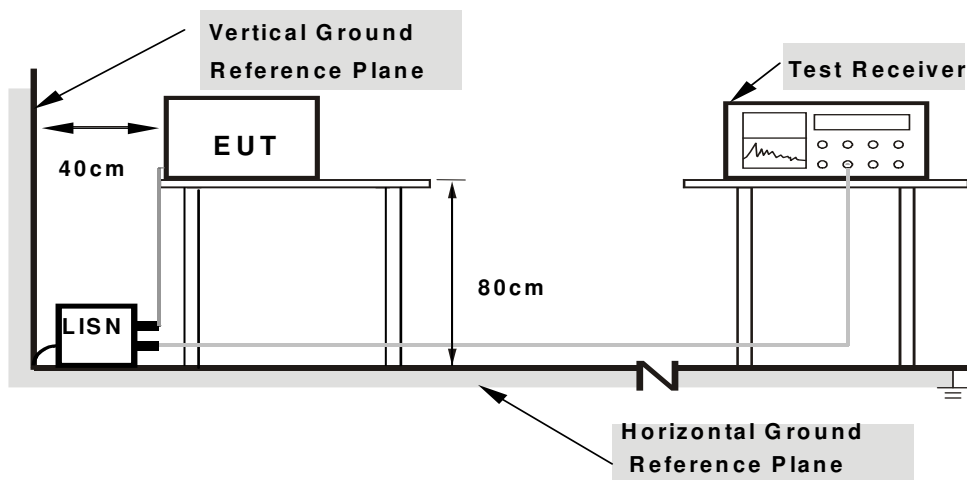
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 3.1.7



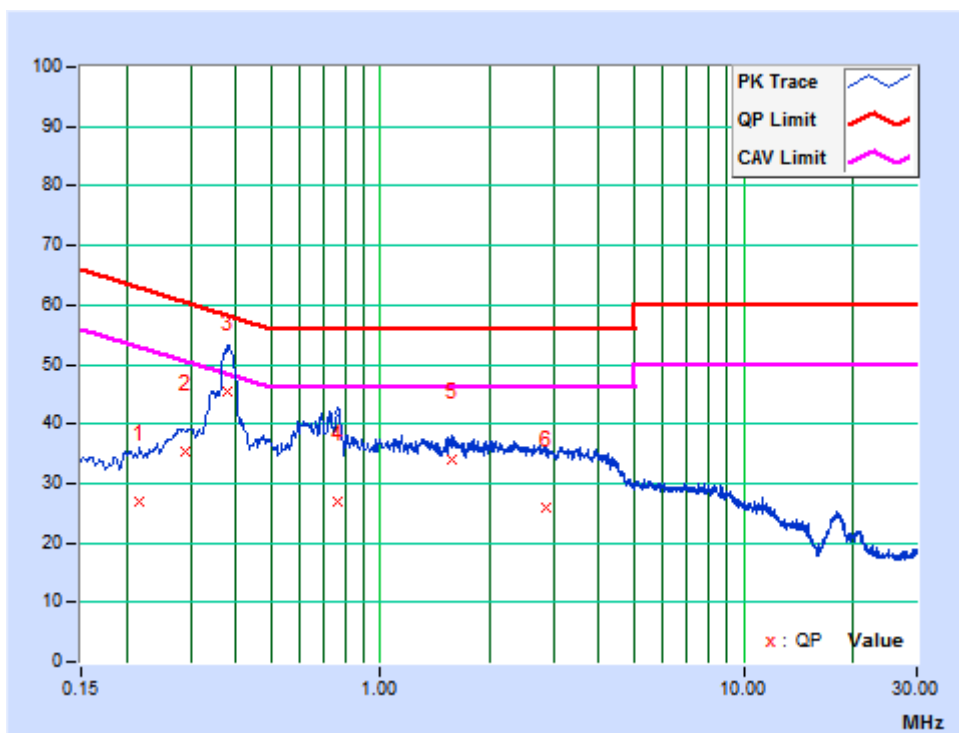
### 3.2.7 TEST RESULTS

**CONDUCTED WORST-CASE DATA: 802.11a CH36**

<b>PHASE</b>	Line	<b>6dB BANDWIDTH</b>	9kHz
--------------	------	----------------------	------

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	0.21745	9.79	17.16	8.97	26.95	18.76	62.92	52.92	-35.97	-34.16
2	0.28950	9.82	25.54	19.49	35.36	29.31	60.54	50.54	-25.18	-21.23
<b>3</b>	<b>0.38159</b>	<b>9.85</b>	<b>35.48</b>	<b>27.61</b>	<b>45.33</b>	<b>37.46</b>	<b>58.24</b>	<b>48.24</b>	<b>-12.92</b>	<b>-10.79</b>
4	0.76214	9.83	17.15	6.92	26.98	16.75	56.00	46.00	-29.02	-29.25
5	1.58100	9.84	24.22	18.23	34.06	28.07	56.00	46.00	-21.94	-17.93
6	2.85000	9.86	15.93	9.00	25.79	18.86	56.00	46.00	-30.21	-27.14

- 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.





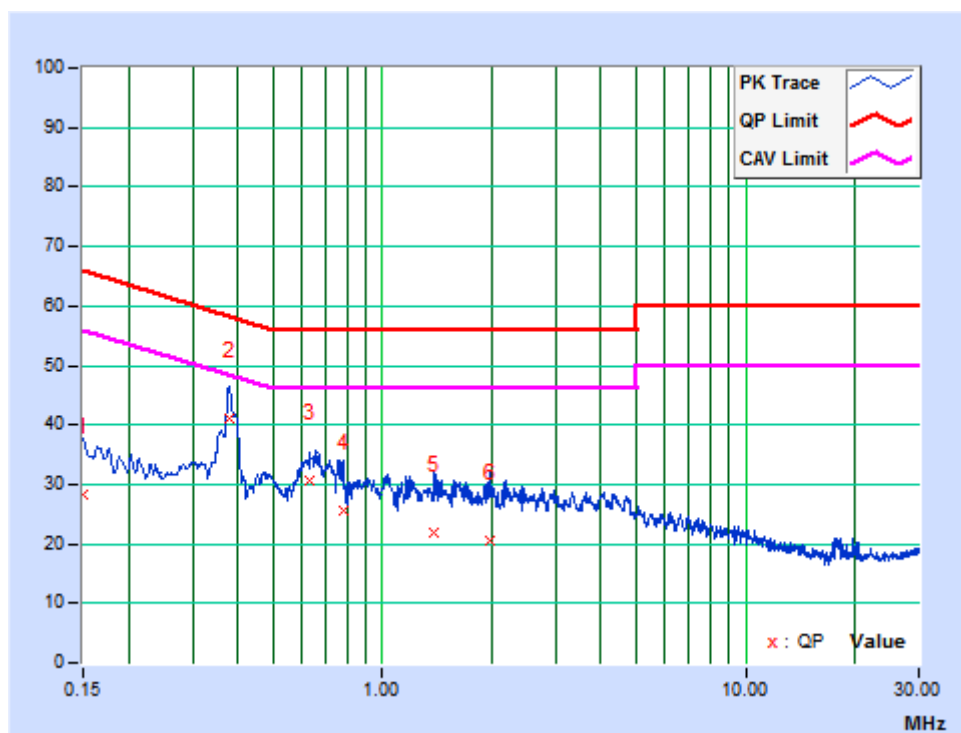
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**Test Report No.: RF2010WDG0259-2**

<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	9.70	18.59	8.20	28.29	17.90	66.00	56.00	-37.71	-38.10
2	0.37759	9.79	31.43	26.17	41.22	35.96	58.33	48.33	-17.12	-12.38
3	0.63186	9.78	20.91	13.32	30.69	23.10	56.00	46.00	-25.31	-22.90
4	0.77841	9.78	15.92	7.19	25.70	16.97	56.00	46.00	-30.30	-29.03
5	1.38525	9.80	11.99	4.01	21.79	13.81	56.00	46.00	-34.21	-32.19
6	1.96800	9.82	10.76	1.42	20.58	11.24	56.00	46.00	-35.42	-34.76

- 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.







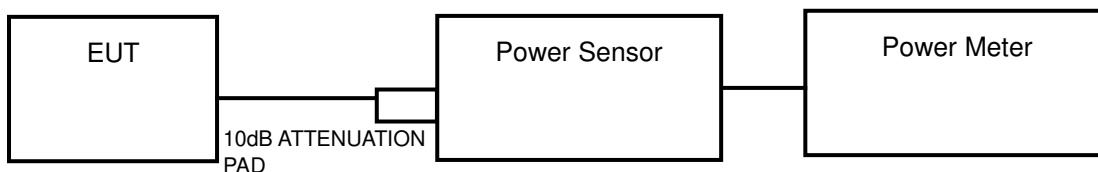
### 3.3 TRANSMIT POWER MEASUREMENT

#### 3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

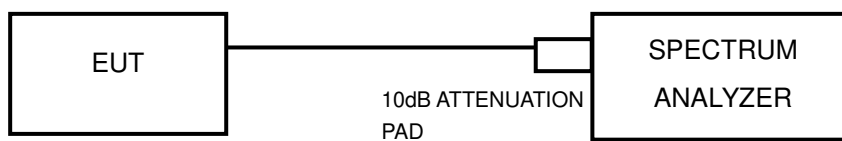
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW(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	Jun. 03,21
Power Meter	Anritsu	ML2495A	1139001	Mar. 17,21
Power Sensor	Anritsu	MA2411B	1531155	Mar. 17,21
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct. 30,21
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 10,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Mar. 17,21
Signal Generator	Agilent	N5183A	MY50140980	Aug. 10,21
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 04,21
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

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	13.31	21.429	24.00	PASS
40	5200	13.20	20.893	24.00	PASS
48	5240	13.16	20.701	24.00	PASS
52	5260	12.03	15.959	24.00	PASS
60	5300	11.81	15.171	24.00	PASS
64	5320	11.78	15.066	24.00	PASS
100	5500	10.02	10.046	24.00	PASS
116	5580	11.36	13.677	24.00	PASS
140	5700	9.93	9.840	24.00	PASS
149	5745	13.07	20.277	30.00	PASS
157	5785	12.78	18.967	30.00	PASS
165	5825	12.74	18.793	30.00	PASS

#### Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

1.  $11\text{dBm} + 10\log(21.57) = 24.34\text{ dBm} > 24\text{dBm}$
2.  $11\text{dBm} + 10\log(21.54) = 24.33\text{ dBm} > 24\text{dBm}$
3.  $11\text{dBm} + 10\log(21.58) = 24.34\text{ dBm} > 24\text{dBm}$
4.  $11\text{dBm} + 10\log(21.53) = 24.33\text{ dBm} > 24\text{dBm}$
5.  $11\text{dBm} + 10\log(21.60) = 24.34\text{ dBm} > 24\text{dBm}$
6.  $11\text{dBm} + 10\log(21.49) = 24.32\text{ dBm} > 24\text{dBm}$



**802.11n (20MHz)**

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	13.01	19.999	24.00	PASS
40	5200	12.54	17.947	24.00	PASS
48	5240	12.95	19.724	24.00	PASS
52	5260	11.92	15.56	24.00	PASS
60	5300	11.61	14.488	24.00	PASS
64	5320	11.59	14.421	24.00	PASS
100	5500	9.62	9.162	24.00	PASS
116	5580	10.59	11.455	24.00	PASS
140	5700	9.54	8.995	24.00	PASS
149	5745	12.84	19.231	30.00	PASS
157	5785	12.56	18.030	30.00	PASS
165	5825	12.51	17.824	30.00	PASS

**Note:**

**For 5260 ~ 5320MHz, 5500 ~ 5700MHz**

**11dBm + 10log (21.86) = 24.40 dBm > 24dBm**

**11dBm + 10log (21.83) = 24.39 dBm > 24dBm**

**11dBm + 10log (21.73) = 24.37 dBm > 24dBm**

**11dBm + 10log (21.78) = 24.38 dBm > 24dBm**

**11dBm + 10log (21.92) = 24.41 dBm > 24dBm**

**11dBm + 10log (21.94) = 24.41 dBm > 24dBm**



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**802.11n (40MHz)**

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	10.71	11.776	24.00	PASS
46	5230	11.73	14.894	24.00	PASS
54	5270	11.41	13.836	24.00	PASS
62	5310	10.62	11.535	24.00	PASS
102	5510	9.42	8.750	24.00	PASS
110	5550	11.44	13.932	24.00	PASS
134	5670	11.87	15.382	24.00	PASS
151	5755	13.31	21.429	30.00	PASS
159	5795	13.27	21.232	30.00	PASS

**Note:**

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (41.06) = 27.13 dBm > 24dBm

11dBm + 10log (40.97) = 27.12 dBm > 24dBm

11dBm + 10log (41.05) = 27.13 dBm > 24dBm

11dBm + 10log (41.19) = 27.15 dBm > 24dBm

11dBm + 10log (41.24) = 27.15 dBm > 24dBm



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**802.11ac (80MHz)**

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
42	5210	8.45	6.998	24.00	PASS
58	5290	9.67	9.268	24.00	PASS
106	5530	8.04	6.368	24.00	PASS
122	5610	12.45	17.579	24.00	PASS
155	5775	14.24	26.546	30.00	PASS

**Note:**

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

$11\text{dBm} + 10\log(82.13) = 29.96\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(82.26) = 29.96\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(84.01) = 29.96\text{ dBm} > 24\text{dBm}$

**26dB BANDWIDTH:**

**802.11a**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	21.52	PASS
40	5200	21.58	PASS
48	5240	21.57	PASS
52	5260	21.57	PASS
60	5300	21.54	PASS
64	5320	21.58	PASS
100	5500	21.53	PASS
116	5580	21.60	PASS
140	5700	21.49	PASS

**802.11n (20MHz)**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	21.94	PASS
40	5200	21.81	PASS
48	5240	21.79	PASS
52	5260	21.86	PASS
60	5300	21.83	PASS
64	5320	21.73	PASS
100	5500	21.78	PASS
116	5580	21.92	PASS
140	5700	21.94	PASS





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802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	41.19	PASS
46	5230	41.29	PASS
54	5270	41.06	PASS
62	5310	40.97	PASS
102	5510	41.05	PASS
110	5550	41.19	PASS
134	5670	41.24	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
42	5210	82.08	PASS
58	5290	82.13	PASS
106	5530	82.26	PASS
122	5610	84.01	PASS

6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.39	PASS
157	5785	16.38	PASS
165	5825	16.39	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	17.59	PASS
157	5785	17.61	PASS
165	5825	17.59	PASS

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.98	PASS
159	5795	36.00	PASS

802.11ac (80MHz)

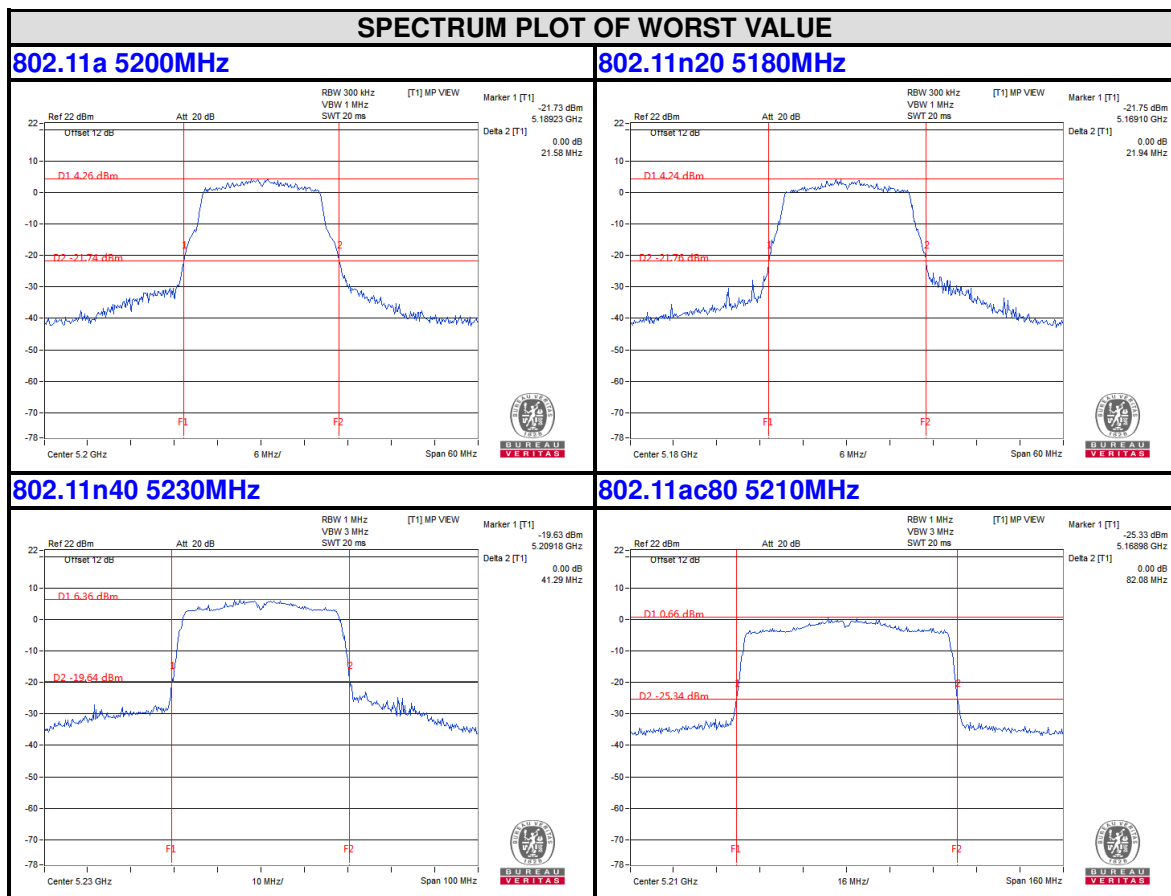
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
155	5775	75.78	PASS



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### 26dB bandwidth Test Plot For 5150-5250MHz



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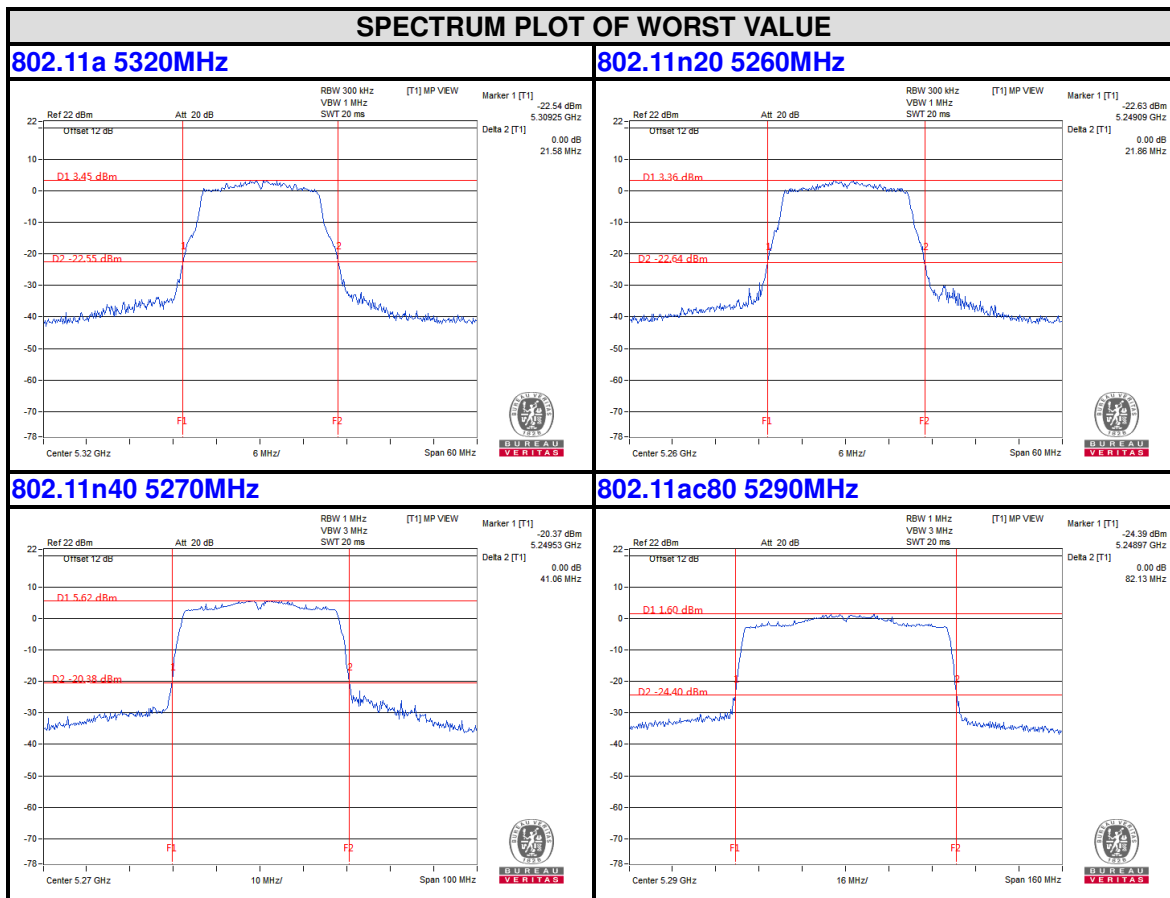
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For 5250-5350MHz



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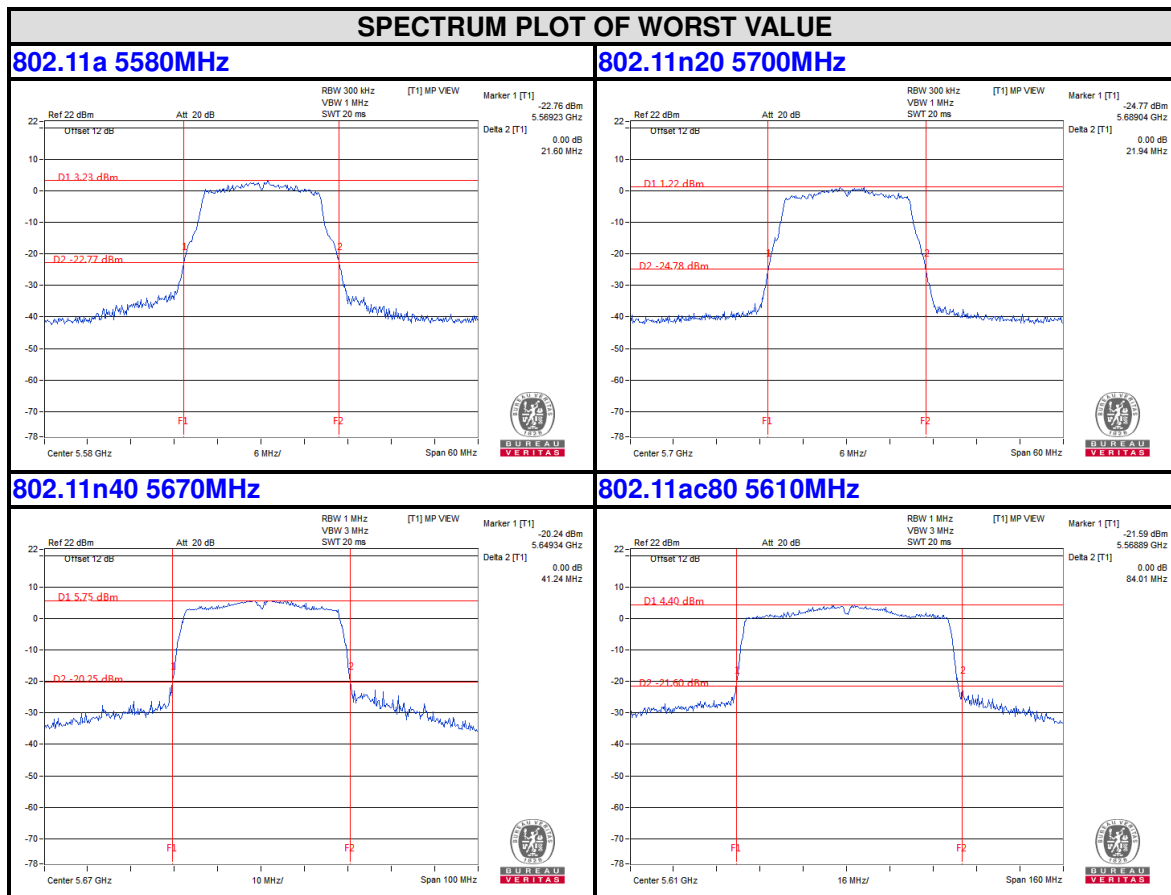
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For 5470-5725MHz



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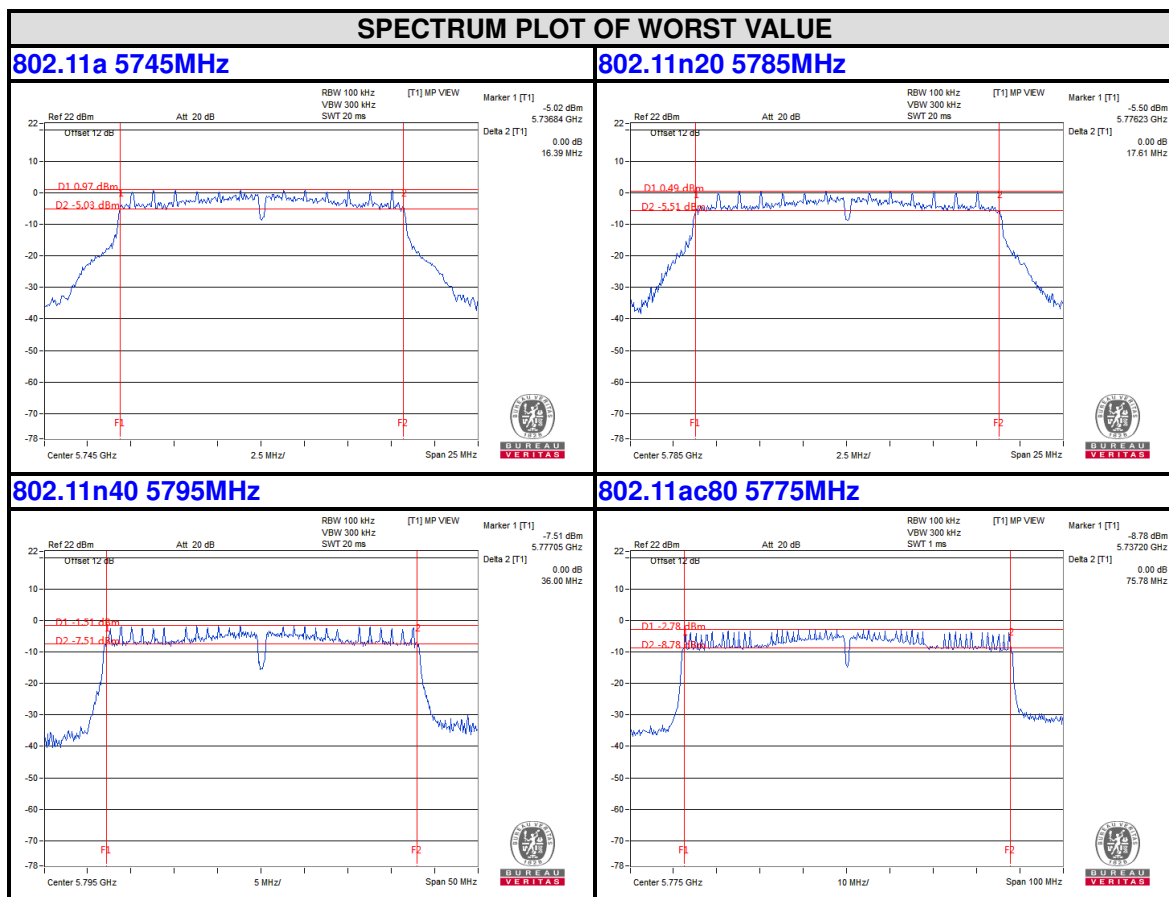
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### 6dB BANDWIDTH For 5725-5850MHz



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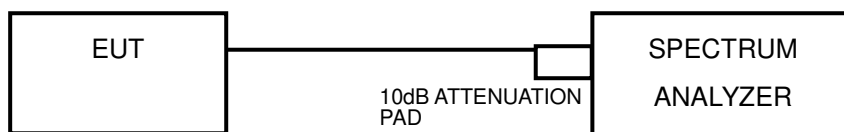


### 3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

#### 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	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	0.49	0.066	0.556	11.00	PASS
40	5200	0.43	0.066	0.496	11.00	PASS
48	5240	0.50	0.066	0.566	11.00	PASS
52	5260	-0.36	0.066	-0.294	11.00	PASS
60	5300	-0.41	0.066	-0.344	11.00	PASS
64	5320	-0.53	0.066	-0.464	11.00	PASS
100	5500	-2.15	0.066	-2.084	11.00	PASS
116	5580	-1.12	0.066	-1.054	11.00	PASS
140	5700	-2.38	0.066	-2.314	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-6.92	-4.70	0.066	-4.634	30.00	PASS
157	5785	-7.29	-5.07	0.066	-5.004	30.00	PASS
165	5825	-7.40	-5.18	0.066	-5.114	30.00	PASS

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



**802.11n (20MHz)**

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	-0.23	0.09	-0.14	11.00	PASS
40	5200	-0.11	0.09	-0.02	11.00	PASS
48	5240	0.03	0.09	0.12	11.00	PASS
52	5260	-0.74	0.09	-0.65	11.00	PASS
60	5300	-0.88	0.09	-0.79	11.00	PASS
64	5320	-1.13	0.09	-1.04	11.00	PASS
100	5500	-2.73	0.09	-2.64	11.00	PASS
116	5580	-1.76	0.09	-1.67	11.00	PASS
140	5700	-2.93	0.09	-2.84	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-7.54	-5.32	0.09	-5.23	30.00	PASS
157	5785	-8.03	-5.81	0.09	-5.72	30.00	PASS
165	5825	-8.10	-5.88	0.09	-5.79	30.00	PASS

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

802.11n (40MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
38	5190	-5.10	0.101	-4.999	11.00	PASS
46	5230	-3.97	0.101	-3.869	11.00	PASS
54	5270	-4.45	0.101	-4.349	11.00	PASS
62	5310	-5.02	0.101	-4.919	11.00	PASS
102	5510	-5.89	0.101	-5.789	11.00	PASS
118	5590	-4.17	0.101	-4.069	11.00	PASS
134	5670	-4.25	0.101	-4.149	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	-10.89	-8.67	0.101	-8.569	30.00	PASS
159	5795	-11.16	-8.94	0.101	-8.839	30.00	PASS

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



**802.11ac (80MHz)**

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
42	5210	-10.27	0.123	-10.147	11.00	PASS
58	5290	-8.83	0.123	-8.707	11.00	PASS
106	5530	-10.45	0.123	-10.327	11.00	PASS
122	5610	-6.04	0.123	-5.917	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
155	5775	-13.12	-10.90	0.123	-10.777	30.00	PASS

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

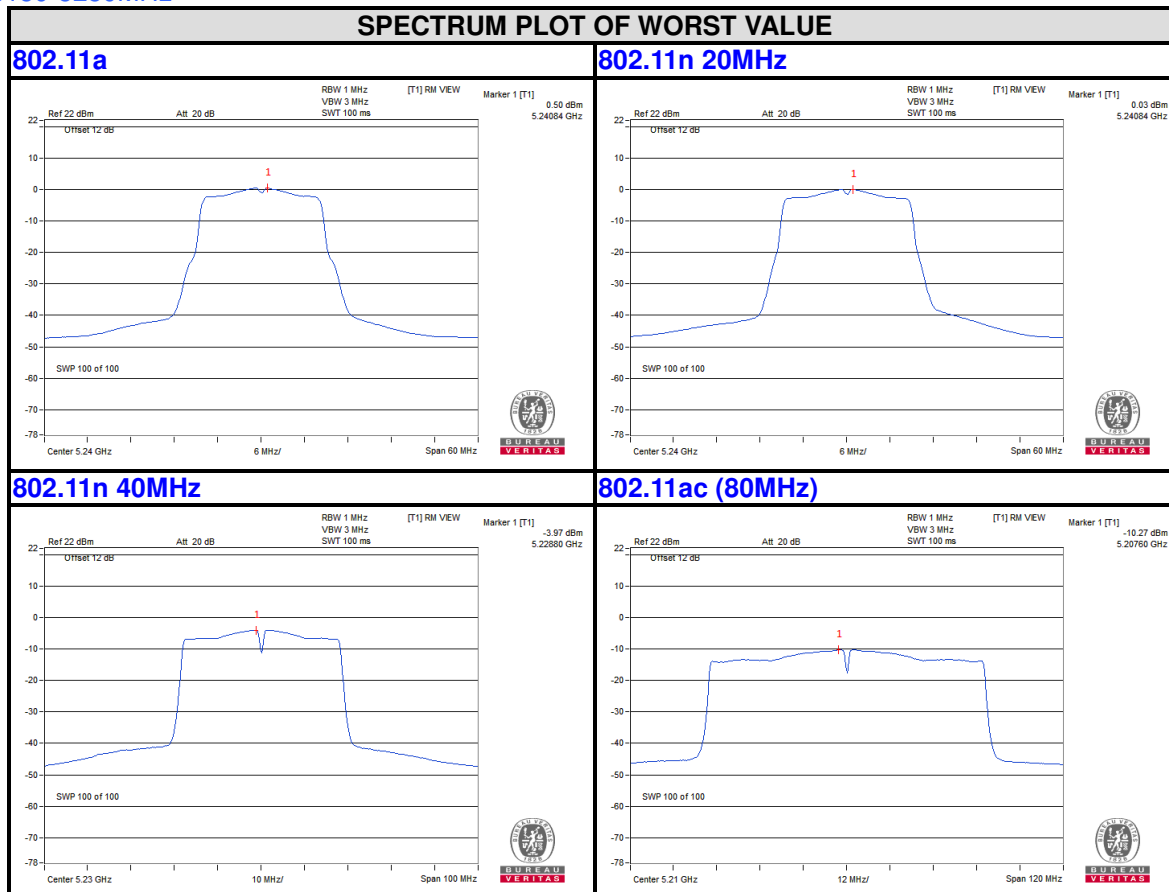


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### PSD Test Plot

BAND 1  
5150-5250MHz



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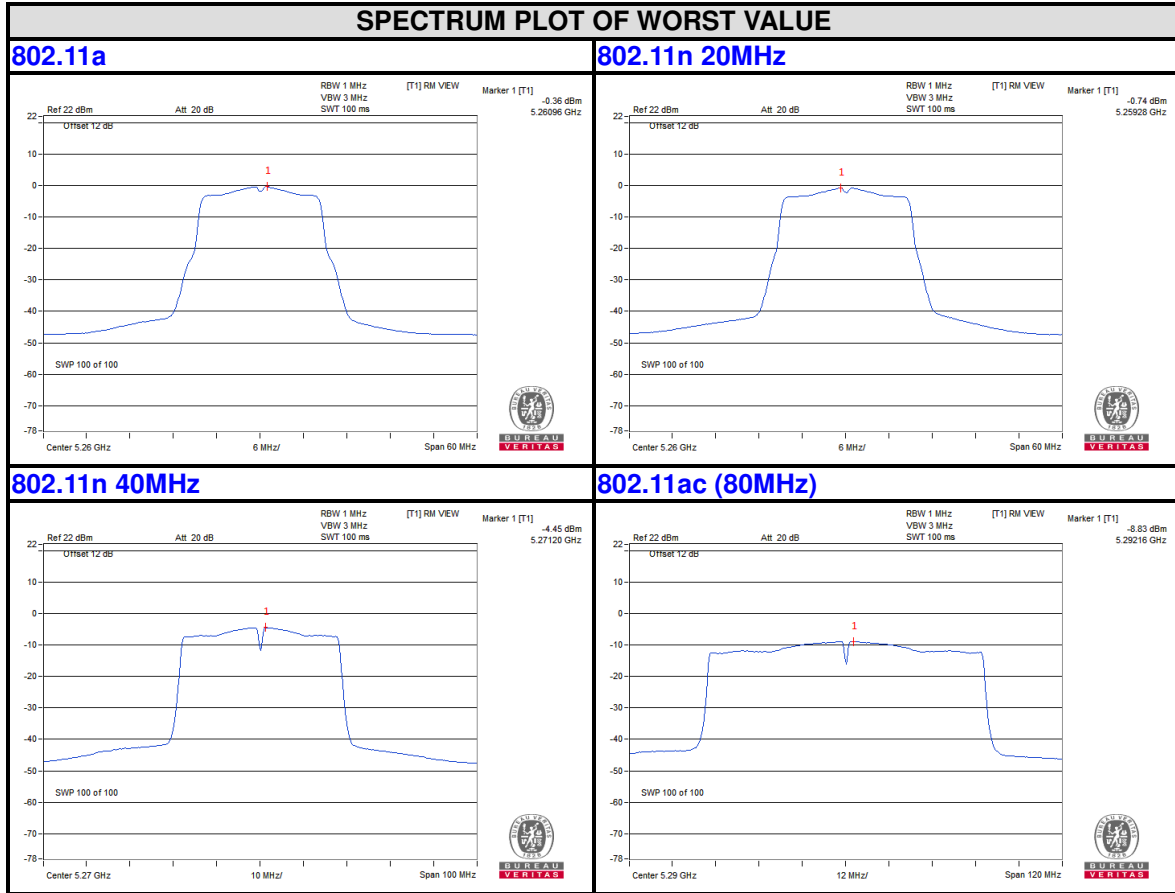
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BAND 2  
5250-5350MHz



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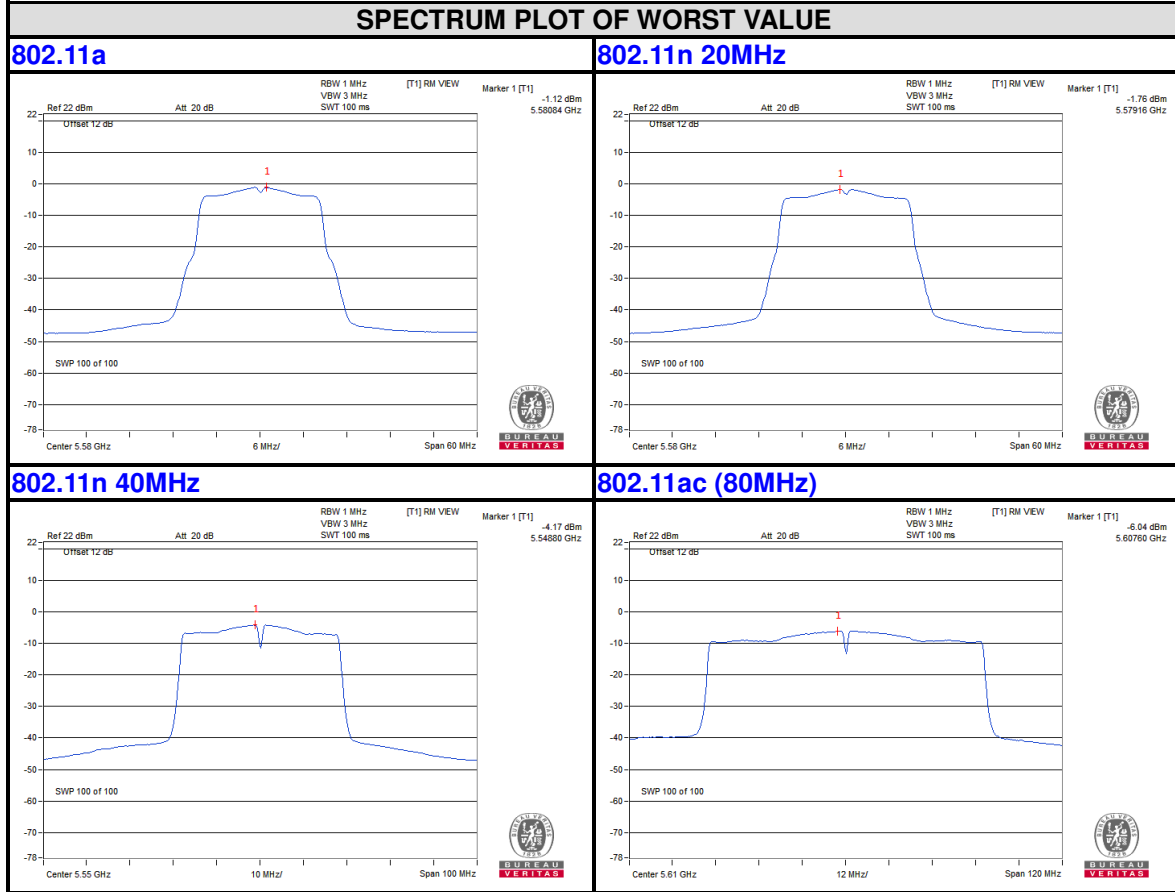
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BAND 3  
5470-5725MHz



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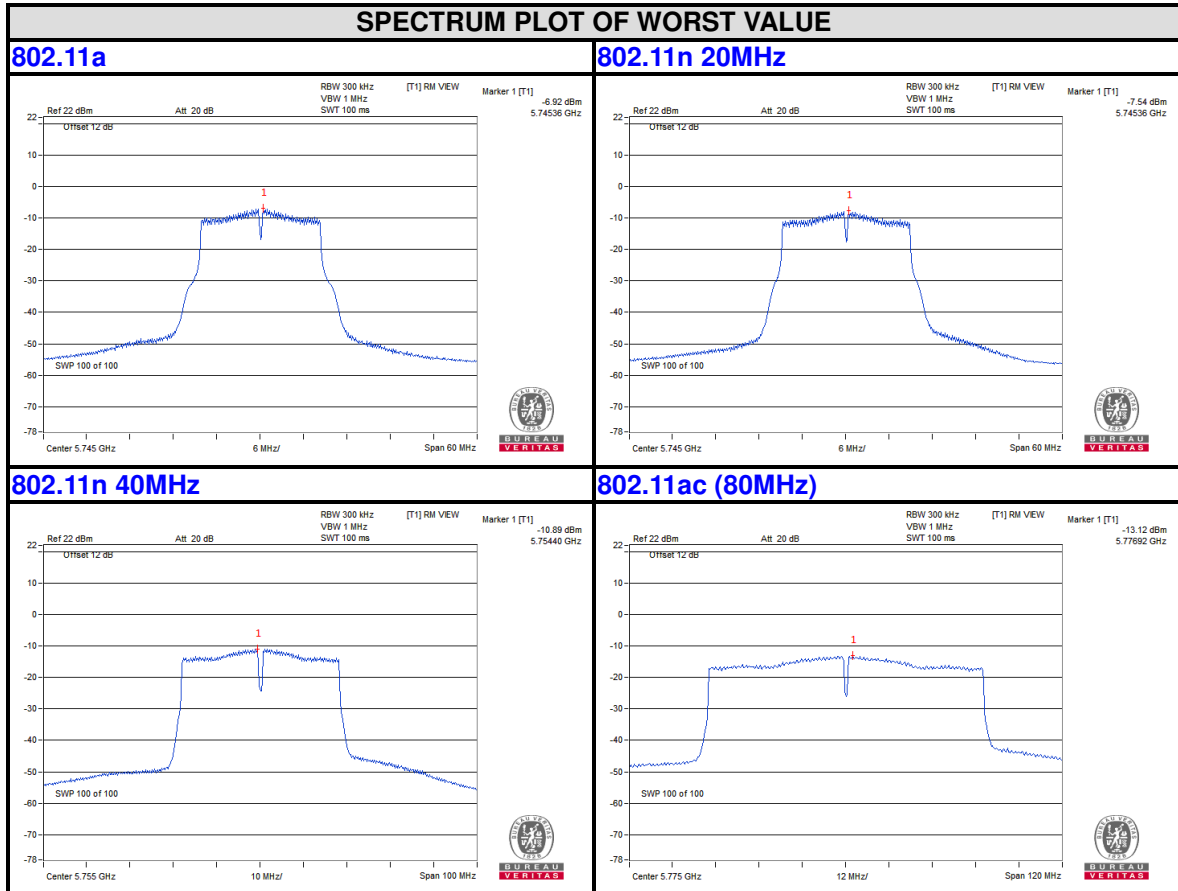
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BAND4  
5725-5850MHz



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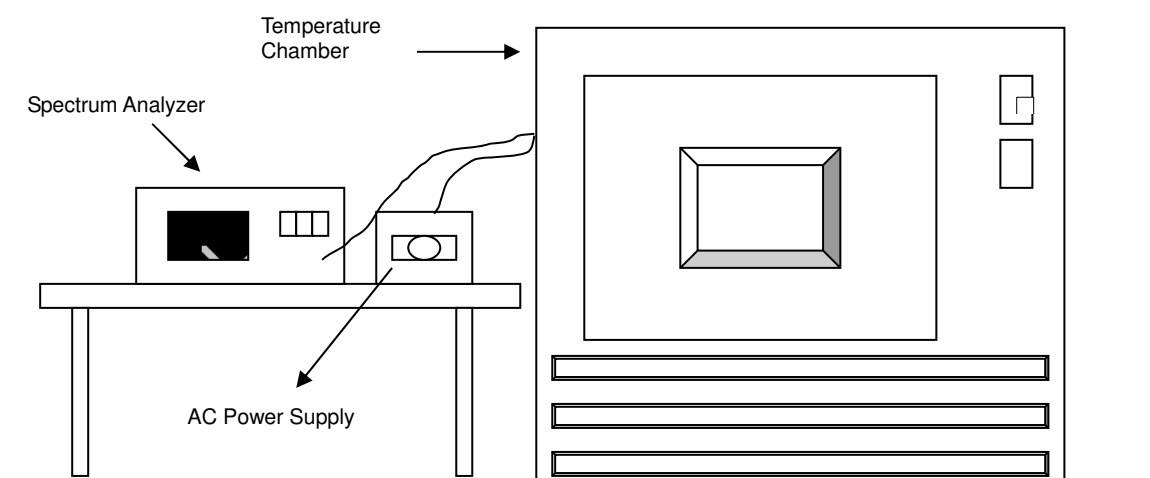


### 3.5 FREQUENCY STABILITY

#### 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.



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### 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	5180.0162	0.00031	5180.0168	0.00032	5180.0175	0.00034	5180.0167	0.00032
40	120	5180.0139	0.00027	5180.0155	0.00030	5180.013	0.00025	5180.0136	0.00026
30	120	5179.9987	-0.00003	5179.9985	-0.00003	5179.9985	-0.00003	5179.9959	-0.00008
20	120	5180.0213	0.00041	5180.0233	0.00045	5180.0203	0.00039	5180.0229	0.00044
10	120	5180.0083	0.00016	5180.0033	0.00006	5180.0079	0.00015	5180.0078	0.00015
0	120	5179.9757	-0.00047	5179.9765	-0.00045	5179.9733	-0.00052	5179.9749	-0.00048
-10	120	5179.9799	-0.00039	5179.9805	-0.00038	5179.9803	-0.00038	5179.9822	-0.00034
-20	120	5179.9815	-0.00036	5179.9809	-0.00037	5179.9788	-0.00041	5179.9784	-0.00042
-30	120	5179.9824	-0.00034	5179.9827	-0.00033	5179.982	-0.00035	5179.9825	-0.00034

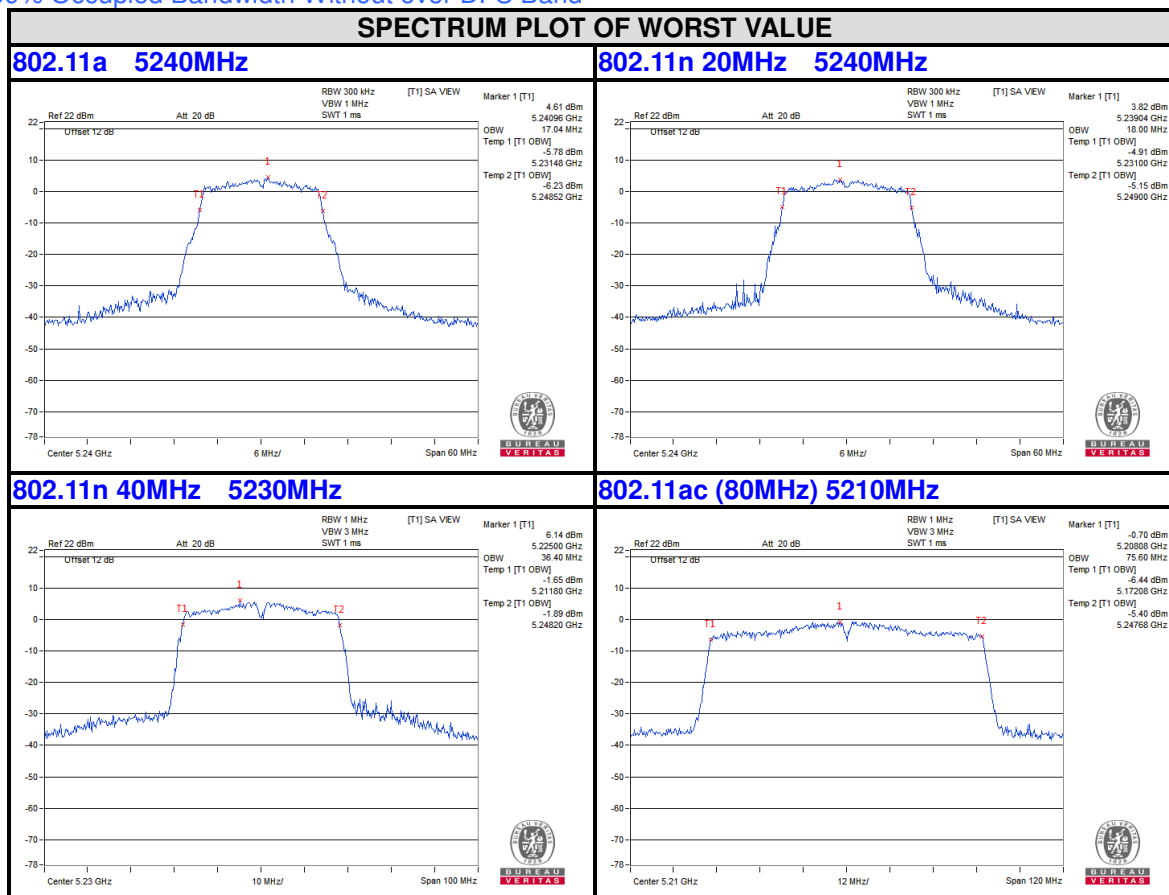
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.0213	0.00041	5180.0237	0.00046	5180.0195	0.00038	5180.0224	0.00043
	120	5180.0213	0.00041	5180.0233	0.00045	5180.0203	0.00039	5180.0229	0.00044
	102	5180.0214	0.00041	5180.0242	0.00047	5180.0198	0.00038	5180.023	0.00044



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Test Report No.: RF2010WDG0259-2

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



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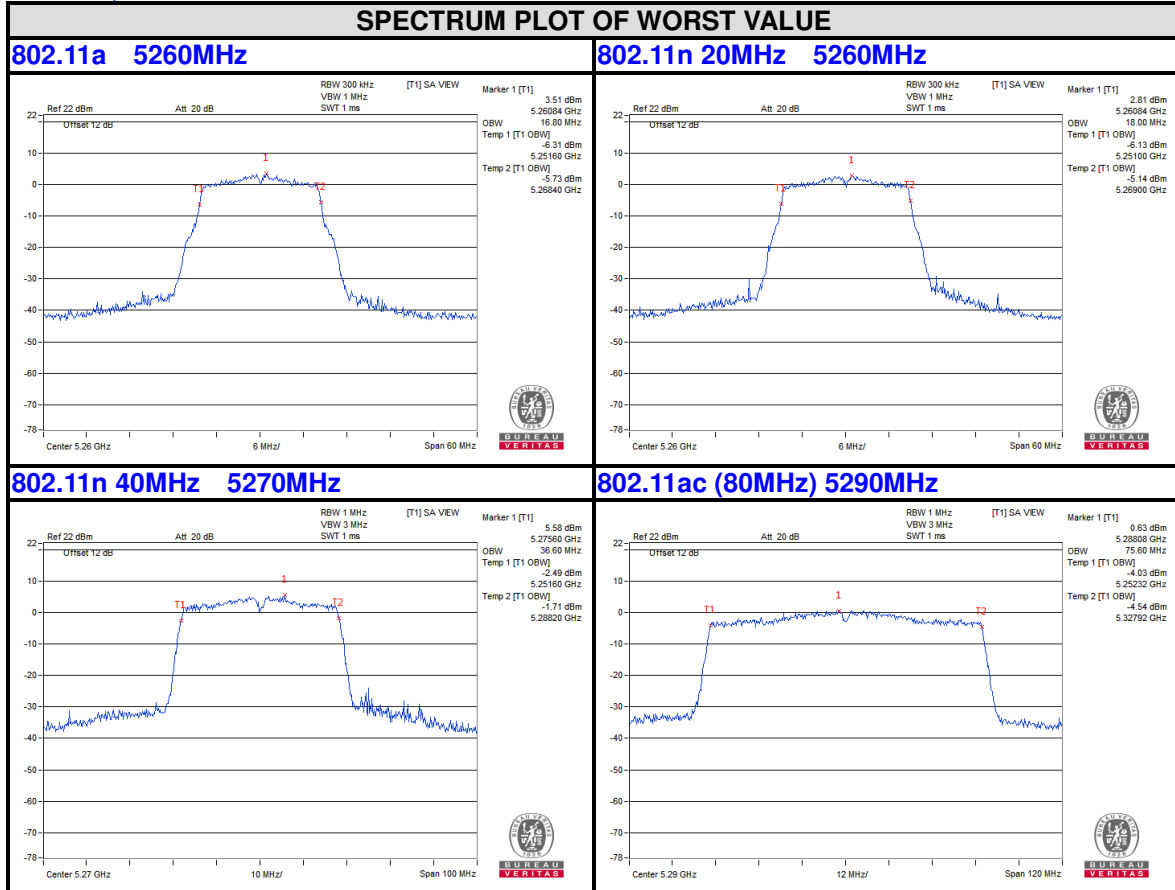
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Test Report No.: RF2010WDG0259-2

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



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#### **4. PHOTOGRAPHS OF THE TEST CONFIGURATION**

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



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## **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---**