



Test Report No.: RF2212WDG0234-3



TEST REPORT

Applicant	Sony Group Corporation
Address	1-7-1 Konan Minato-ku Tokyo 108-0075 JP

Manufacturer or Supplier	Sony Interactive Entertainment Inc.
Address	1-7-1 Konan Minato-ku Tokyo 108-0075 JP
Product Name	Computer Entertainment System
Brand Name	SONY
Model	CFI-Y1001
Additional Model & Model Difference	N/A
Date of tests	Mar. 02, 2023 ~ May 10, 2023

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

FCC Part 15, Subpart E, Section 15.407

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

Tested by Lucas Chen
Project Engineer / EMC Department

Approved by Glyn He
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Date: Jun. 12, 2023

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2212WDG0234-3	Original release	Jun. 12, 2023



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	2.68dB
Radiated emissions	9KHz ~ 30MHz	2.80dB
	30MHz ~ 1GMHz	4.24dB
	1GHz ~ 18GHz	4.76dB
	18GHz ~ 40GHz	4.50dB

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

PRODUCT	Computer Entertainment System
BRAND	SONY
MODEL NO.	CFI-Y1001
FCC ID	AK8CFIY1001
POWER SUPPLY	Powered by Type-C Host Unit or DC 3.87V from Li-ion Battery
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5720MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	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,11ac (20MHz) 2 channels for 802.11n, 11ac (40MHz) 1 channel for 802.11ac (80MHz) 5500 ~ 5720MHz: 12 channels for 802.11a, 802.11n,11ac (20MHz) 6 channels for 802.11n,11ac (40MHz) 3 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)
CONDUCTED OUTPUT POWER	16.982mW for 5180 ~ 5240MHz (Maximum AVG Power) 12.853mW for 5260 ~ 5320MHz (Maximum AVG Power) 14.028mW for 5500 ~ 5720MHz (Maximum AVG Power) 14.488mW for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: FPCB antenna with 7.3dBi gain 5260 ~ 5320MHz: FPCB antenna with 7.6dBi gain 5500 ~ 5720MHz: FPCB antenna with 6.9dBi gain 5745 ~ 5825MHz: FPCB antenna with 6.5dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	Type-C Cable: Shielded, Detachable, 1.5m
RF POWER SETTING IN TEST SW	See notes 4



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.
2. Please refer to the EUT photo document (Reference No.: 2212WDG0234-3) for detailed product photo.
3. The EUT have SISO function, 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.

4. By means of test software provided by manufacturer, the power levels during the tests were set according to the following codes:

802.11a		802.11n20/ac20		802.11n40/ac40		802.11ac80	
Channel	Power Setting	Channel	Power Setting	Channel	Power Setting	Channel	Power Setting
36	10.5	36	10.5	38	10.5	42	10.5
40	10.5	40	10.5	46	10.5	58	11
48	11	48	11	54	10.5	106	11
52	11	52	11	62	11	122	11
60	11.5	60	11.5	102	10.5	138	10
64	11.5	64	11.5	110	10.5	155	10.5
100	11	100	11	134	10.5		
116	11	116	11	142	10		
140	11	140	11	151	10.5		
144	10	144	10	159	11		
149	11	149	11				
157	11.5	157	11.5				
165	11	165	11				



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

12 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	144	5720 MHz

6 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	142	5710 MHz

3 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz
138	5690MHz	--	--

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 \geq 1G	RE $<$ 1G	PLC	APCM	
A	√	√	√	-	Powered by Adaptor
B	-	-	-	√	Powered by DC 3.87V from Li-ion Battery

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

NOTE:

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

NOTE: “-” means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
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 144	100, 116, 140, 144	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
	802.11ac (80MHz)		106 to 138	106, 122, 138	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 144 149 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 144 149 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 144	100, 116, 140, 144	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
	802.11ac (80MHz)		106 to 138	106, 122, 138	OFDM	BPSK	29.3
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac (80MHz)		155	155	OFDM	BPSK	29.3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 55%RH	Powered by adaptor	Stalker
RE≥1G	25deg. C, 55%RH	Powered by adaptor	Stalker
PLC	25deg. C, 56%RH	Powered by adaptor	Ming Bai
APCM	25deg. C, 58%RH	DC 3.87V from fully battery	Vincent



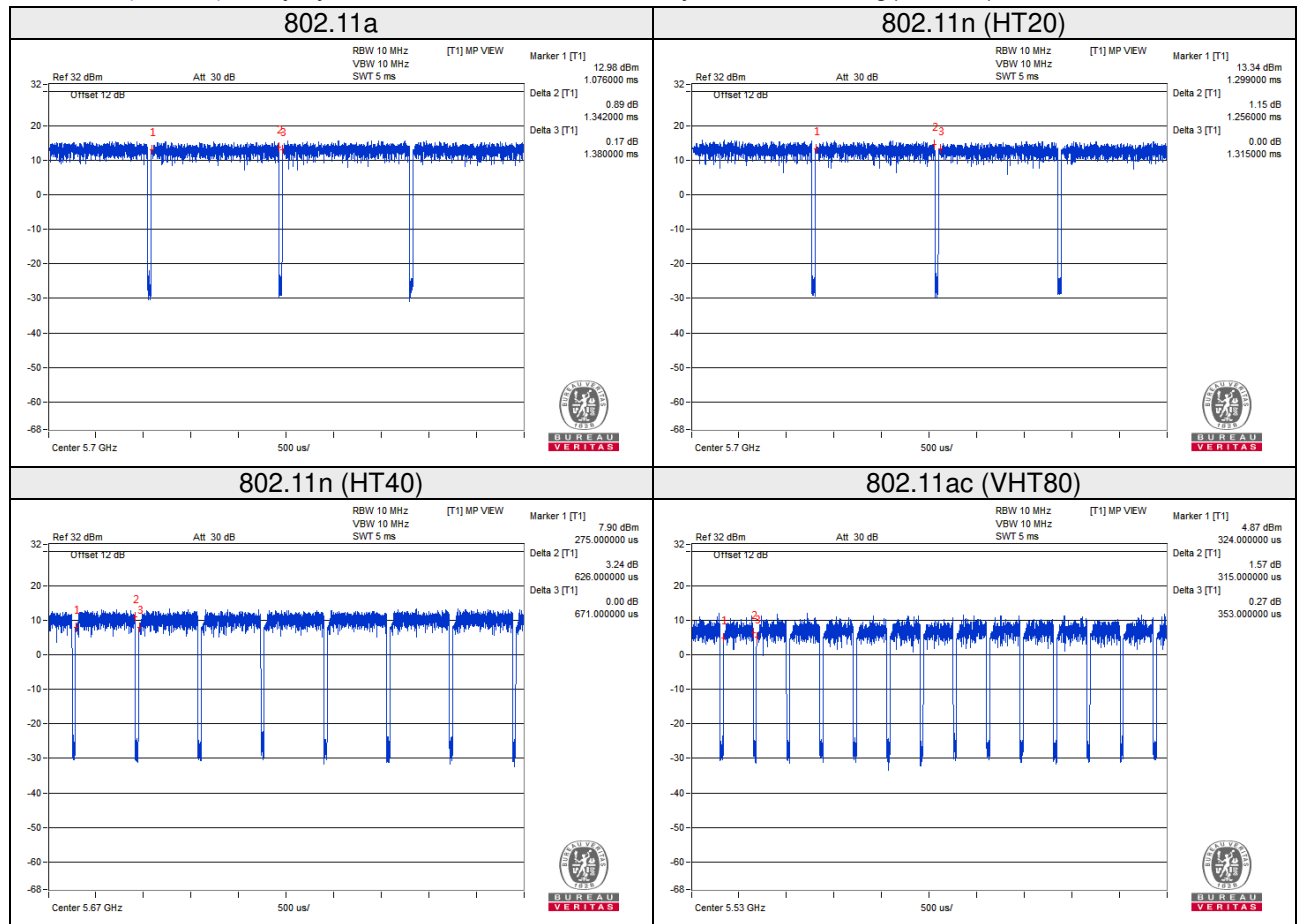
2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 1.342/1.380 = 0.972, Duty factor = 10 * log(1/0.972) = 0.123

802.11n (HT20): Duty cycle = 1.256/1.315 = 0.955, Duty factor = 10 * log(1/0.955) = 0.200

802.11n (HT40): Duty cycle = 0.626/0.671 = 0.933, Duty factor = 10 * log(1/0.933) = 0.301

802.11ac (VHT80): Duty cycle = 0.315/0.353 = 0.892, Duty factor = 10 * log(1/0.892) = 0.496





2.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Adaptor	N/A	A829-120167C-US1	N/A	N/A
2	Router	ASUS	TM-AC1900	000000660218058	MSQ-RTAC68U

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A
2	N/A

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v02r01

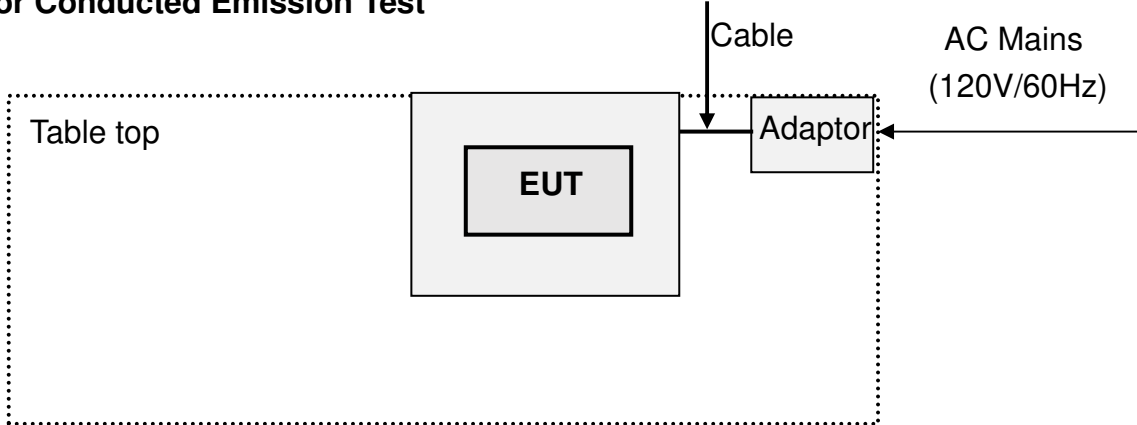
ANSI C63.10-2013

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



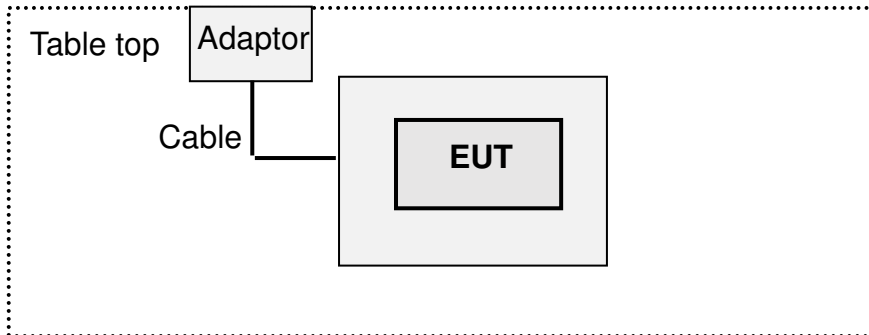
2.6 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted Emission Test



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

For Radiated Emission Test



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



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:

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



3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Jan. 10, 24
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Apr. 05, 24
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	Apr. 20, 24
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 06, 24
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Jan. 08, 24
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Apr. 01, 24
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	Apr. 01, 24
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22, 23
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 24, 24
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Jan. 16, 24
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	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. For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1.3m above the ground.

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%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

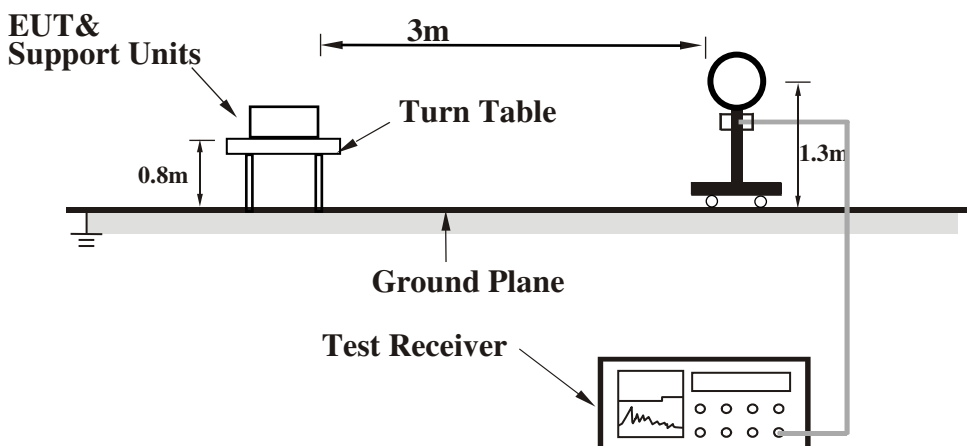
3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

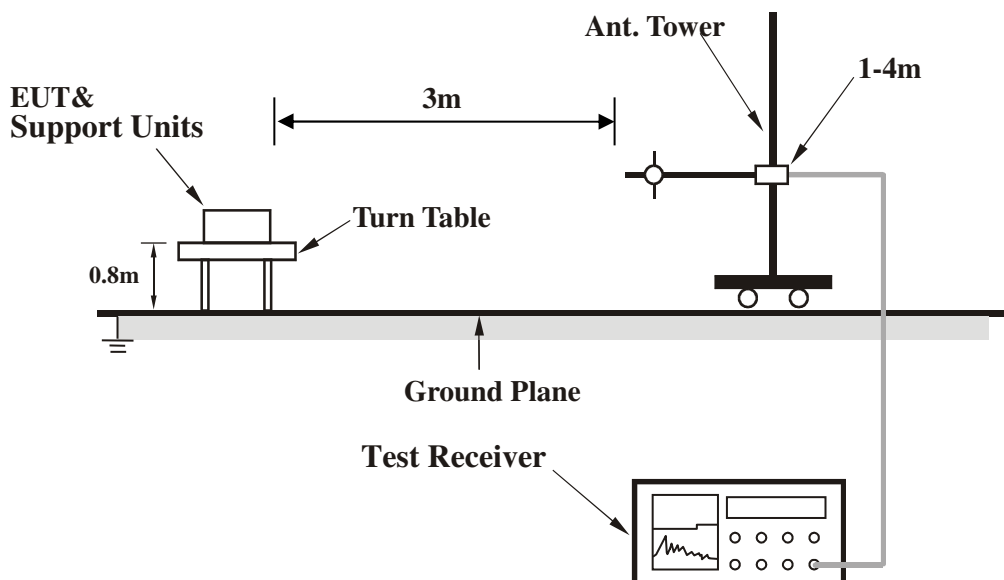


3.1.6 TEST SETUP

Below 30MHz test setup



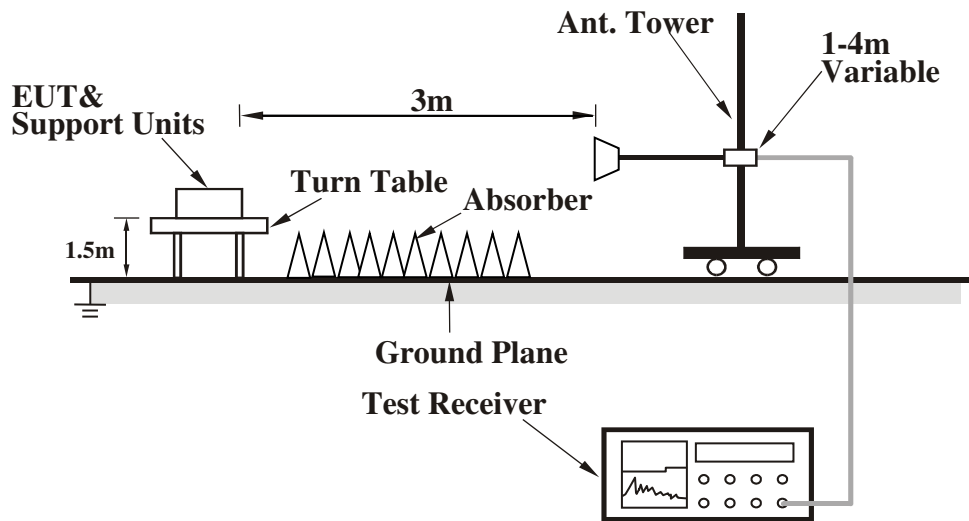
Below 1GHz test setup



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



Above 1GHz test setup



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

3.1.7 EUT OPERATING CONDITION

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



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Test Report No.: RF2212WDG0234-3

3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

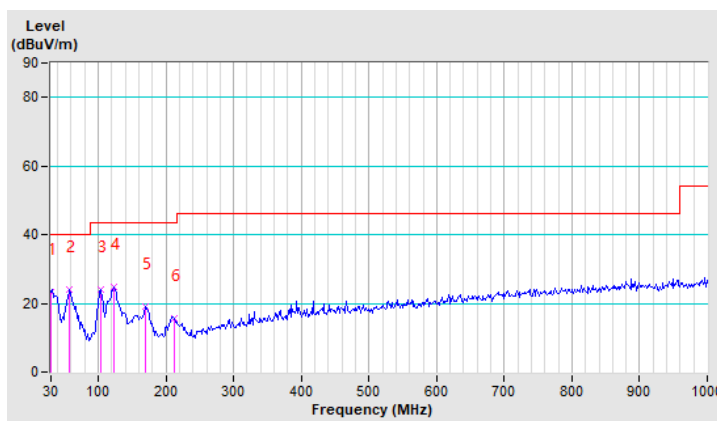
802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	30.00	23.3 QP	40.0	-16.8	1.85 H	167	41.3	-18.0
2	57.98	24.1 QP	40.0	-15.9	2.00 H	116	40.8	-16.7
3	103.06	23.9 QP	43.5	-19.6	2.00 H	85	44.5	-20.6
4	123.27	24.6 QP	43.5	-18.9	2.00 H	69	43.0	-18.3
5	169.90	19.2 QP	43.5	-24.3	2.00 H	55	35.7	-16.5
6	211.87	15.7 QP	43.5	-27.8	2.00 H	38	33.8	-18.0

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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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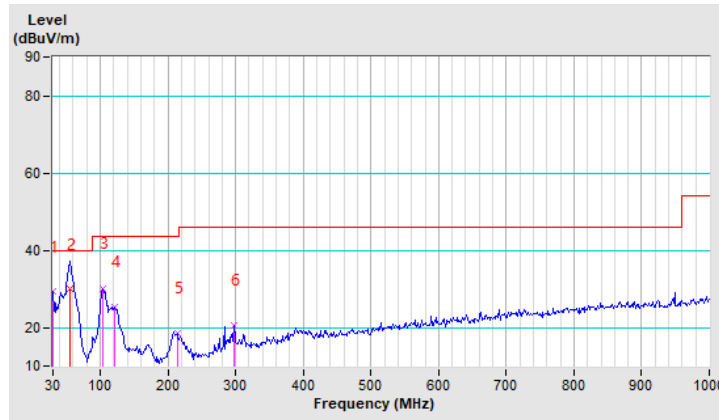
Test Report No.: RF2212WDG0234-3

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	30.00	29.2 QP	40.0	-10.8	1.00 V	61	47.2	-18.0
2	54.29	29.9 QP	40.0	-10.1	1.00 V	46	46.5	-16.6
3	103.06	30.1 QP	43.5	-13.4	1.00 V	34	50.7	-20.6
4	121.71	25.4 QP	43.5	-18.1	1.00 V	23	44.0	-18.6
5	213.43	18.5 QP	43.5	-25.0	1.00 V	12	36.5	-18.0
6	297.37	20.7 QP	46.0	-25.3	1.00 V	2	35.4	-14.8

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

BAND (U-NII-1) (5150-5250MHz): ABOVE 1GHz DATA 802.11a

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	47.2 PK	74.0	-26.8	1.03 H	288	39.5	7.8
2	5145.00	37.1 AV	54.0	-16.9	1.03 H	288	29.3	7.8
3	5150.00	48.2 PK	74.0	-25.8	1.03 H	288	40.5	7.7
4	5150.00	35.9 AV	54.0	-18.1	1.03 H	288	28.2	7.7
5	*5180.00	95.7 PK			1.03 H	288	88.1	7.6
6	*5180.00	86.5 AV			1.03 H	288	78.9	7.6
7	#10360.00	49.2 PK	68.2	-19.0	1.50 H	0	39.9	9.3
8	15540.00	59.6 PK	74.0	-14.4	1.50 H	0	39.1	20.6
9	15540.00	48.2 AV	54.0	-5.8	1.50 H	0	27.6	20.6

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	49.3 PK	74.0	-24.7	1.50 V	212	41.6	7.8
2	5145.00	36.9 AV	54.0	-17.1	1.50 V	212	29.1	7.8
3	5150.00	47.1 PK	74.0	-26.9	1.50 V	212	39.3	7.7
4	5150.00	36.0 AV	54.0	-18.0	1.50 V	212	28.3	7.7
5	*5180.00	93.8 PK			1.50 V	212	86.2	7.6
6	*5180.00	84.0 AV			1.50 V	212	76.4	7.6
7	#10360.00	50.4 PK	68.2	-17.8	1.54 V	84	41.1	9.3
8	15540.00	58.4 PK	74.0	-15.6	1.54 V	84	37.9	20.6
9	15540.00	46.6 AV	54.0	-7.4	1.54 V	84	26.0	20.6

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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

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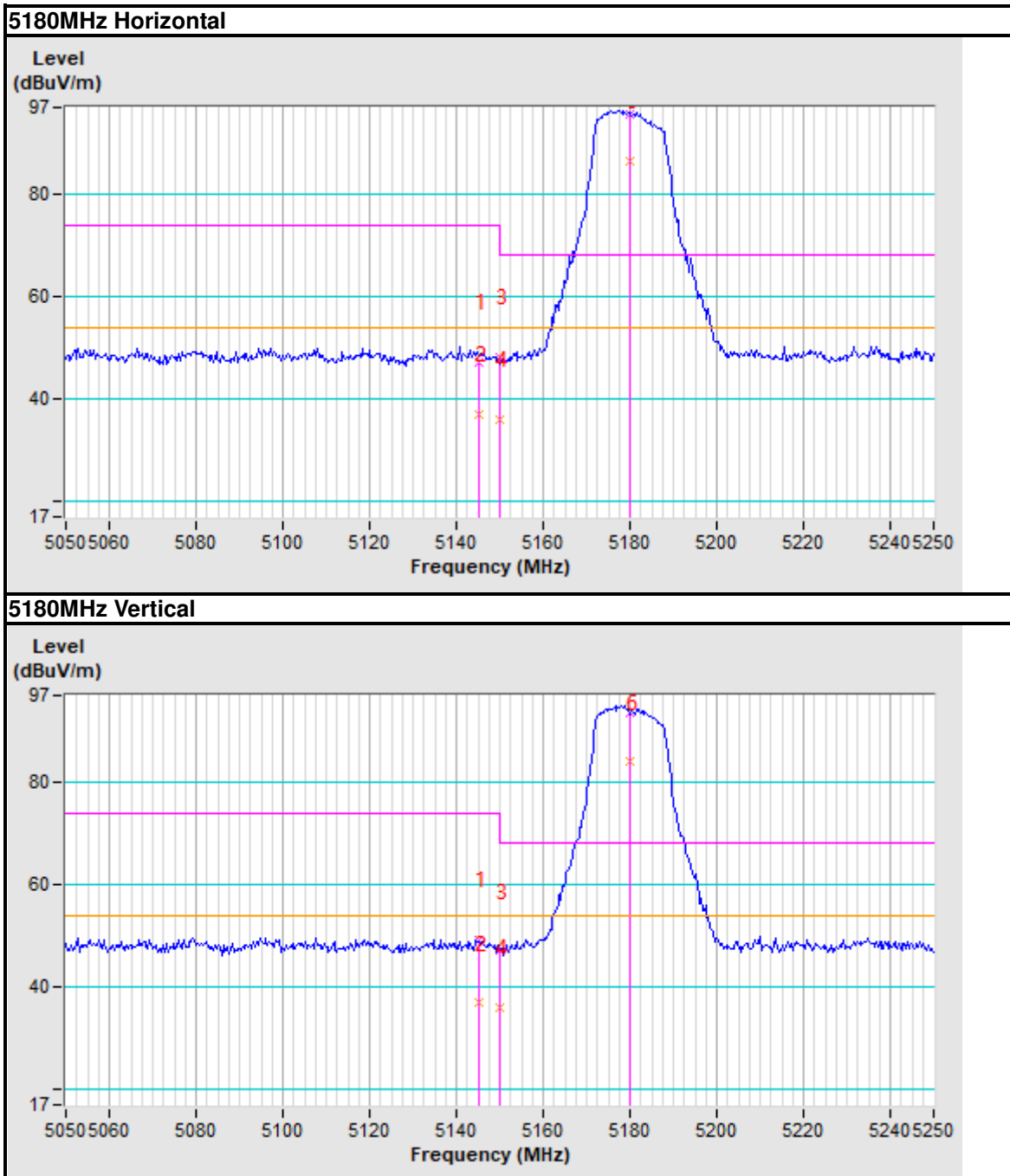
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Test Report No.: RF2212WDG0234-3

Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	49.1 PK	74.0	-24.9	1.00 H	148	41.3	7.8
2	5140.00	38.5 AV	54.0	-15.5	1.00 H	148	30.7	7.8
3	5150.00	47.5 PK	74.0	-26.5	1.00 H	148	39.7	7.7
4	5150.00	36.7 AV	54.0	-17.3	1.00 H	148	29.0	7.7
5	*5200.00	93.3 PK			1.00 H	148	85.8	7.5
6	*5200.00	84.3 AV			1.00 H	148	76.8	7.5
7	#10400.00	48.6 PK	68.2	-19.6	1.00 H	129	39.1	9.5
8	15600.00	59.7 PK	74.0	-14.3	1.04 H	32	38.9	20.8
9	15600.00	48.9 AV	54.0	-5.1	1.04 H	32	28.1	20.8

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	47.1 PK	74.0	-26.9	1.40 V	212	39.3	7.8
2	5140.00	38.2 AV	54.0	-15.9	1.40 V	212	30.4	7.8
3	5150.00	47.5 PK	74.0	-26.5	1.40 V	212	39.7	7.7
4	5150.00	38.0 AV	54.0	-16.0	1.40 V	212	30.3	7.7
5	*5200.00	91.7 PK			1.40 V	212	84.2	7.5
6	*5200.00	82.6 AV			1.40 V	212	75.1	7.5
7	#10400.00	50.2 PK	68.2	-18.0	1.20 V	209	40.7	9.5
8	15600.00	58.2 PK	74.0	-15.8	1.54 V	120	37.4	20.8
9	15600.00	49.4 AV	54.0	-4.6	1.54 V	120	28.6	20.8

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.



BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

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	5105.00	48.9 PK	74.0	-25.1	1.00 H	283	41.0	8.0
2	5105.00	40.0 AV	54.0	-14.0	1.00 H	283	32.1	8.0
3	5150.00	48.3 PK	74.0	-25.7	1.00 H	283	40.5	7.7
4	5150.00	38.2 AV	54.0	-15.8	1.00 H	283	30.5	7.7
5	*5240.00	98.0 PK			1.00 H	283	90.8	7.2
6	*5240.00	89.7 AV			1.00 H	283	82.5	7.2
7	5350.00	48.9 PK	74.0	-25.2	1.00 H	284	42.2	6.7
8	5350.00	39.0 AV	54.0	-15.0	1.00 H	284	32.3	6.7
9	5400.00	49.1 PK	74.0	-24.9	1.00 H	283	42.7	6.4
10	5400.00	40.7 AV	54.0	-13.3	1.00 H	283	34.3	6.4
11	#10480.00	50.2 PK	68.2	-18.0	1.85 H	20	40.4	9.8
12	15720.00	58.7 PK	74.0	-15.3	1.33 H	154	37.5	21.2
13	15720.00	47.2 AV	54.0	-6.8	1.33 H	154	26.0	21.2

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5105.00	49.2 PK	74.0	-24.8	1.47 V	213	41.2	8.0
2	5105.00	40.3 AV	54.0	-13.7	1.47 V	213	32.4	8.0
3	5150.00	47.5 PK	74.0	-26.5	1.47 V	213	39.8	7.7
4	5150.00	38.0 AV	54.0	-16.0	1.47 V	213	30.3	7.7
5	*5240.00	93.3 PK			1.47 V	213	86.1	7.2
6	*5240.00	83.4 AV			1.47 V	213	76.2	7.2
7	5350.00	47.7 PK	74.0	-26.3	1.47 V	213	41.0	6.7
8	5350.00	38.2 AV	54.0	-15.8	1.47 V	213	31.5	6.7
9	5400.00	47.8 PK	74.0	-26.2	1.47 V	213	41.4	6.4
10	5400.00	38.0 AV	54.0	-16.0	1.47 V	213	31.6	6.4
11	#10480.00	48.3 PK	68.2	-19.9	1.07 V	200	38.5	9.8
12	15720.00	60.2 PK	74.0	-13.8	1.00 V	10	39.0	21.2
13	15720.00	46.1 AV	54.0	-7.9	1.00 V	10	24.9	21.2

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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	5150.00	49.2 PK	74.0	-24.8	1.06 H	254	41.5	7.7
2	5150.00	37.6 AV	54.0	-16.4	1.06 H	254	29.8	7.7
3	*5180.00	100.3 PK			1.06 H	254	92.7	7.6
4	*5180.00	91.2 AV			1.06 H	254	83.7	7.6
5	#5250.00	46.8 PK	68.2	-21.4	1.06 H	254	39.6	7.2
6	#5250.00	36.9 AV	54.0	-17.1	1.06 H	254	29.7	7.2
7	#10360.00	51.2 PK	68.2	-17.0	1.50 H	285	41.9	9.3
8	15540.00	61.2 PK	74.0	-12.8	1.20 H	85	40.6	20.6
9	15540.00	46.9 AV	54.0	-7.1	1.20 H	185	26.3	20.6

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	48.4 PK	74.0	-25.6	1.06 V	294	40.7	7.7
2	5150.00	37.3 AV	54.0	-16.8	1.06 V	294	29.5	7.7
3	*5180.00	91.0 PK			1.06 V	294	83.5	7.6
4	*5180.00	82.3 AV			1.06 V	294	74.8	7.6
5	#5250.00	48.5 PK	68.2	-19.7	1.06 V	294	41.3	7.2
6	#5250.00	37.5 AV	54.0	-16.5	1.06 V	294	30.3	7.2
7	#10360.00	50.2 PK	68.2	-18.0	1.50 V	85	40.9	9.3
8	15540.00	61.2 PK	74.0	-12.8	1.20 V	85	40.6	20.6
9	15540.00	47.3 AV	54.0	-6.7	1.20 V	85	26.7	20.6

REMARKS:

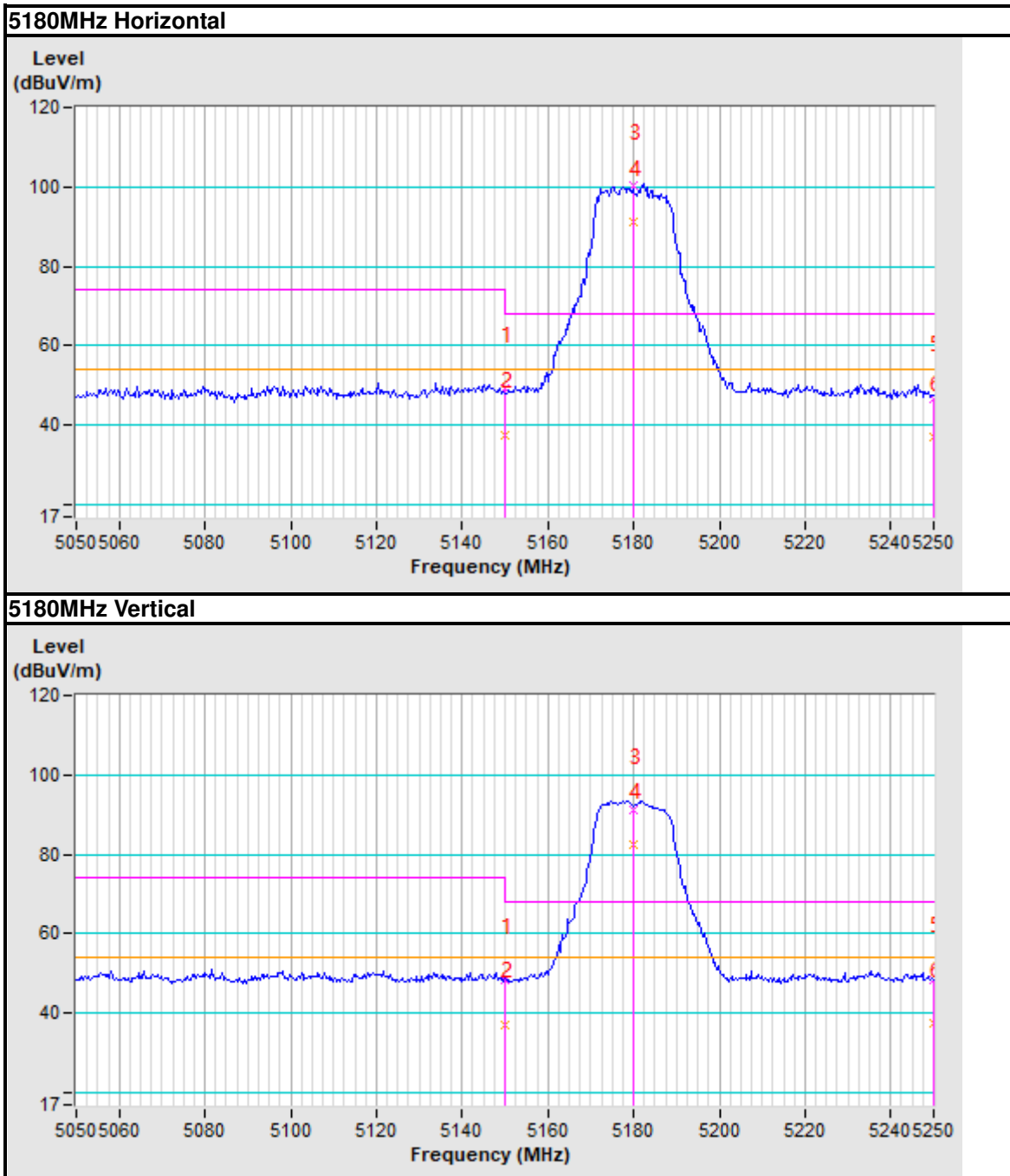
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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



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Test Report No.: RF2212WDG0234-3

Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	49.1 PK	74.0	-24.9	1.15 H	258	41.3	7.8
2	5140.00	38.5 AV	54.0	-15.5	1.15 H	258	30.7	7.8
3	5150.00	47.8 PK	74.0	-26.2	1.15 H	258	40.1	7.7
4	5150.00	36.6 AV	54.0	-17.4	1.15 H	258	28.9	7.7
5	*5200.00	99.0 PK			1.15 H	258	91.6	7.5
6	*5200.00	89.9 AV			1.15 H	258	82.5	7.5
7	#10400.00	51.2 PK	68.2	-17.0	1.42 H	10	41.7	9.5
8	15600.00	59.4 PK	74.0	-14.6	1.20 H	232	38.6	20.8
9	15600.00	47.1 AV	54.0	-6.9	1.20 H	232	26.3	20.8

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	49.0 PK	74.0	-25.0	1.01 V	216	41.2	7.8
2	5140.00	38.9 AV	54.0	-15.1	1.01 V	216	31.2	7.8
3	5150.00	47.7 PK	74.0	-26.3	1.01 V	216	40.0	7.7
4	5150.00	36.8 AV	54.0	-17.2	1.01 V	216	29.1	7.7
5	*5200.00	91.1 PK			1.01 V	216	83.6	7.5
6	*5200.00	82.5 AV			1.01 V	216	75.0	7.5
7	#10400.00	49.3 PK	68.2	-18.9	1.00 V	21	39.8	9.5
8	15600.00	59.4 PK	74.0	-14.6	1.54 V	120	38.7	20.8
9	15600.00	45.0 AV	54.0	-9.0	1.54 V	120	24.2	20.8

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.



BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

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	5100.00	48.2 PK	74.0	-25.8	1.04 H	256	40.3	8.0
2	5100.00	38.1 AV	54.0	-15.9	1.04 H	256	30.1	8.0
3	5150.00	47.6 PK	74.0	-26.4	1.04 H	256	39.9	7.7
4	5150.00	37.0 AV	54.0	-17.0	1.04 H	256	29.3	7.7
5	*5240.00	100.3 PK			1.04 H	256	93.1	7.2
6	*5240.00	90.1 AV			1.04 H	256	82.9	7.2
7	#5300.00	49.7 PK	68.2	-18.5	1.04 H	256	42.8	6.9
8	#5300.00	40.4 AV	54.0	-13.6	1.04 H	256	33.5	6.9
9	5350.00	49.3 PK	74.0	-24.8	1.04 H	256	42.6	6.7
10	5350.00	40.0 AV	54.0	-14.0	1.04 H	256	33.3	6.7
11	#10480.00	51.2 PK	68.2	-17.0	1.74 H	99	41.4	9.8
12	15720.00	59.5 PK	74.0	-14.5	1.20 H	52	38.3	21.2
13	15720.00	46.8 AV	54.0	-7.2	1.20 H	52	25.6	21.2

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5100.00	48.1 PK	74.0	-25.9	1.00 V	214	40.1	8.0
2	5100.00	40.0 AV	54.0	-14.0	1.00 V	214	32.0	8.0
3	5150.00	48.2 PK	74.0	-25.8	1.00 V	214	40.5	7.7
4	5150.00	37.9 AV	54.0	-16.1	1.00 V	214	30.2	7.7
5	*5240.00	91.6 PK			1.00 V	214	84.4	7.2
6	*5240.00	82.8 AV			1.00 V	214	75.6	7.2
7	#5300.00	48.6 PK	68.2	-19.6	1.00 V	214	41.7	6.9
8	#5300.00	37.0 AV	54.0	-17.0	1.00 V	214	30.1	6.9
9	5350.00	48.6 PK	74.0	-25.4	1.00 V	214	42.0	6.7
10	5350.00	38.2 AV	54.0	-15.8	1.00 V	214	31.5	6.7
11	#10480.00	51.0 PK	68.2	-17.2	1.00 V	14	41.2	9.8
12	15720.00	58.2 PK	74.0	-15.8	1.90 V	100	37.0	21.2
13	15720.00	46.7 AV	54.0	-7.3	1.90 V	100	25.5	21.2

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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 (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	48.4 PK	74.0	-25.6	1.04 H	255	40.6	7.8
2	5145.00	38.2 AV	54.0	-15.9	1.04 H	255	30.4	7.8
3	5150.00	49.4 PK	74.0	-24.6	1.04 H	255	41.6	7.7
4	5150.00	36.8 AV	54.0	-17.2	1.04 H	255	29.1	7.7
5	*5190.00	98.3 PK			1.04 H	255	90.8	7.5
6	*5190.00	89.4 AV			1.04 H	255	81.8	7.5
7	#10380.00	49.4 PK	68.2	-18.8	1.22 H	100	40.0	9.4
8	15570.00	58.6 PK	74.0	-15.4	1.74 H	109	37.9	20.7
9	15570.00	46.5 AV	54.0	-7.5	1.74 H	109	25.8	20.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	47.3 PK	74.0	-26.7	1.22 V	214	39.6	7.8
2	5145.00	36.9 AV	54.0	-17.1	1.22 V	214	29.2	7.8
3	5150.00	47.8 PK	74.0	-26.2	1.22 V	214	40.1	7.7
4	5150.00	35.9 AV	54.0	-18.1	1.22 V	214	28.1	7.7
5	*5190.00	90.6 PK			1.22 V	214	83.1	7.5
6	*5190.00	81.4 AV			1.22 V	214	73.9	7.5
7	#10380.00	48.1 PK	68.2	-20.1	1.22 V	100	38.7	9.4
8	15570.00	50.2 PK	74.0	-23.8	1.20 V	100	29.5	20.7
9	15570.00	41.3 AV	54.0	-12.7	1.20 V	100	20.6	20.7

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

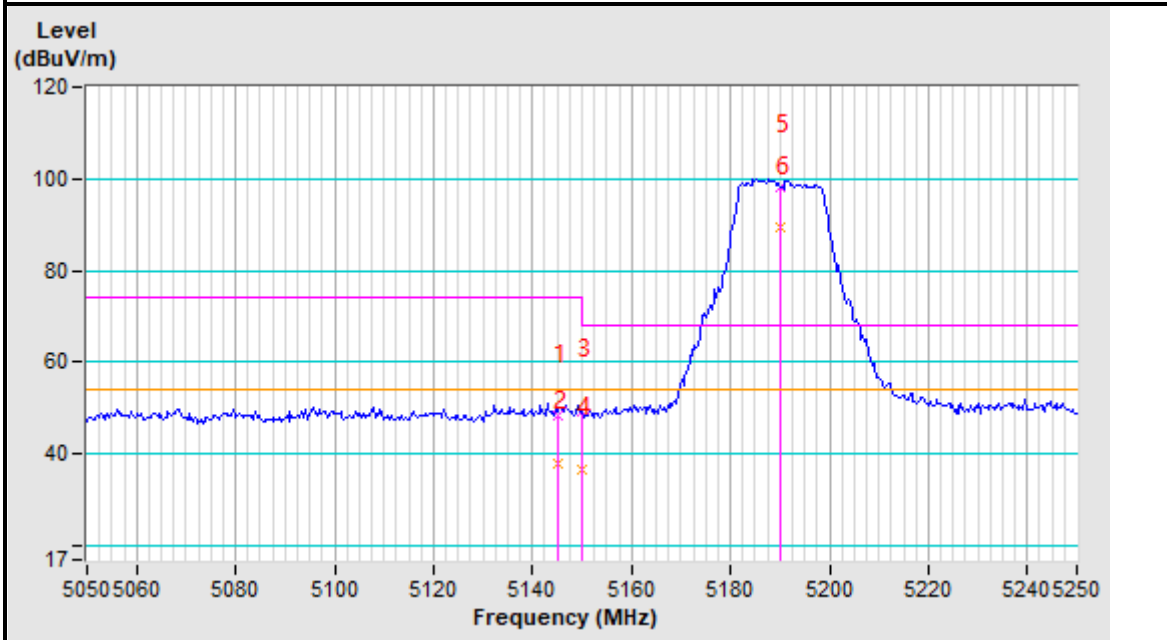


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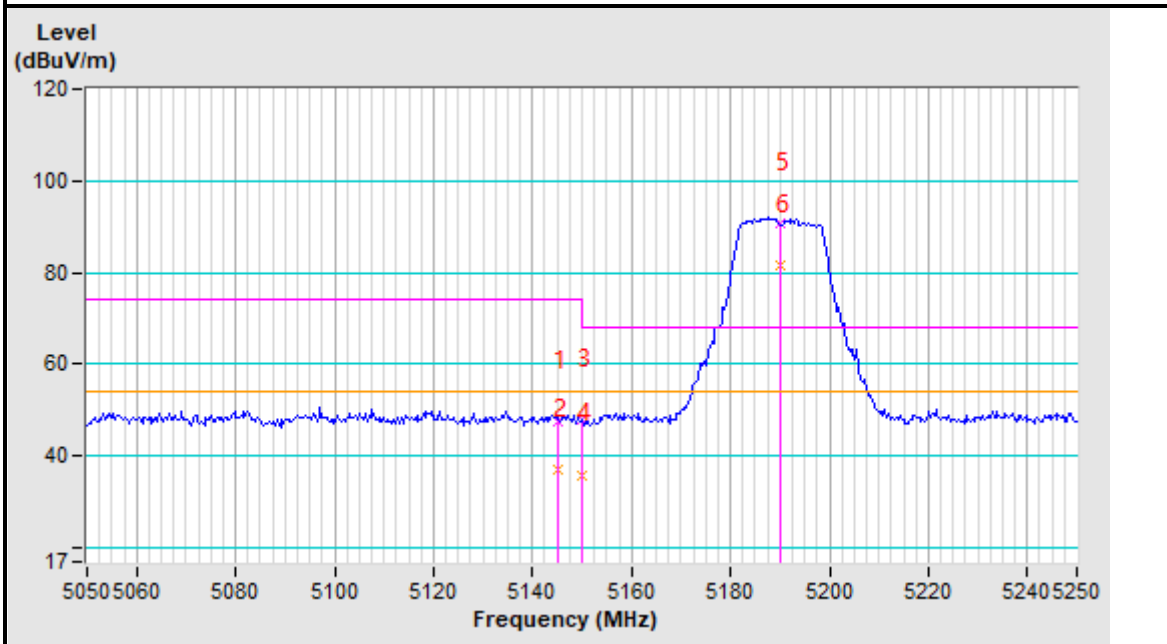
Test Report No.: RF2212WDG0234-3

Band edge Plot

5190MHz Horizontal



5190MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.2 PK	74.0	-23.8	1.00 H	80	42.5	7.7
2	5150.00	48.8 PK	74.0	-25.2	1.00 H	80	41.0	7.7
3	5150.00	38.7 AV	54.0	-15.3	1.00 H	80	31.0	7.7
4	5150.00	37.3 AV	54.0	-16.7	1.00 H	80	29.6	7.7
5	*5230.00	91.2 PK			1.00 H	80	83.9	7.3
6	*5230.00	82.2 AV			1.00 H	80	74.9	7.3
7	#10460.00	48.9 PK	68.2	-19.3	1.50 H	211	39.2	9.7
8	15690.00	58.9 PK	74.0	-15.1	1.02 H	80	37.8	21.1
9	15690.00	44.5 AV	54.0	-9.5	1.02 H	80	23.4	21.1

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	49.3 PK	74.0	-24.7	1.45 V	266	41.5	7.8
2	5140.00	38.5 AV	54.0	-15.5	1.45 V	266	30.7	7.8
3	5150.00	48.3 PK	74.0	-25.7	1.45 V	266	40.5	7.7
4	5150.00	38.0 AV	54.0	-16.1	1.45 V	266	30.2	7.7
5	*5230.00	100.3 PK			1.45 V	266	93.0	7.3
6	*5230.00	89.5 AV			1.45 V	266	82.2	7.3
7	#10460.00	49.0 PK	68.2	-19.3	1.20 V	290	39.2	9.7
8	15690.00	55.3 PK	74.0	-18.7	1.29 V	202	34.2	21.1
9	15690.00	46.5 AV	54.0	-7.5	1.29 V	202	25.4	21.1

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.



BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5100.00	50.1 PK	74.0	-23.9	1.00 H	276	42.2	8.0
2	5100.00	40.2 AV	54.0	-13.8	1.00 H	276	32.3	8.0
3	5150.00	48.3 PK	74.0	-25.7	1.00 H	275	40.6	7.7
4	5150.00	38.5 AV	54.0	-15.5	1.00 H	275	30.8	7.7
5	*5210.00	97.3 PK			1.00 H	276	89.9	7.4
6	*5210.00	87.5 AV			1.00 H	276	80.1	7.4
7	#10420.00	50.6 PK	68.2	-17.6	1.00 H	129	41.0	9.6
8	15630.00	59.3 PK	74.0	-14.7	1.00 H	129	38.4	20.9
9	15630.00	46.0 AV	54.0	-8.0	1.00 H	129	25.1	20.9

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5100.00	49.8 PK	74.0	-24.2	1.00 V	216	41.8	8.0
2	5100.00	36.2 AV	54.0	-17.8	1.00 V	216	28.2	8.0
3	5150.00	46.0 PK	74.0	-28.0	1.00 V	216	38.3	7.7
4	5150.00	35.9 AV	54.0	-18.1	1.00 V	216	28.2	7.7
5	*5210.00	90.6 PK			1.00 V	216	83.2	7.4
6	*5210.00	80.3 AV			1.00 V	216	72.9	7.4
7	#10420.00	49.3 PK	68.2	-18.9	1.00 V	20	39.8	9.6
8	15630.00	59.2 PK	74.0	-14.8	1.00 V	20	38.3	20.9
9	15630.00	45.3 AV	54.0	-8.7	1.00 V	20	24.4	20.9

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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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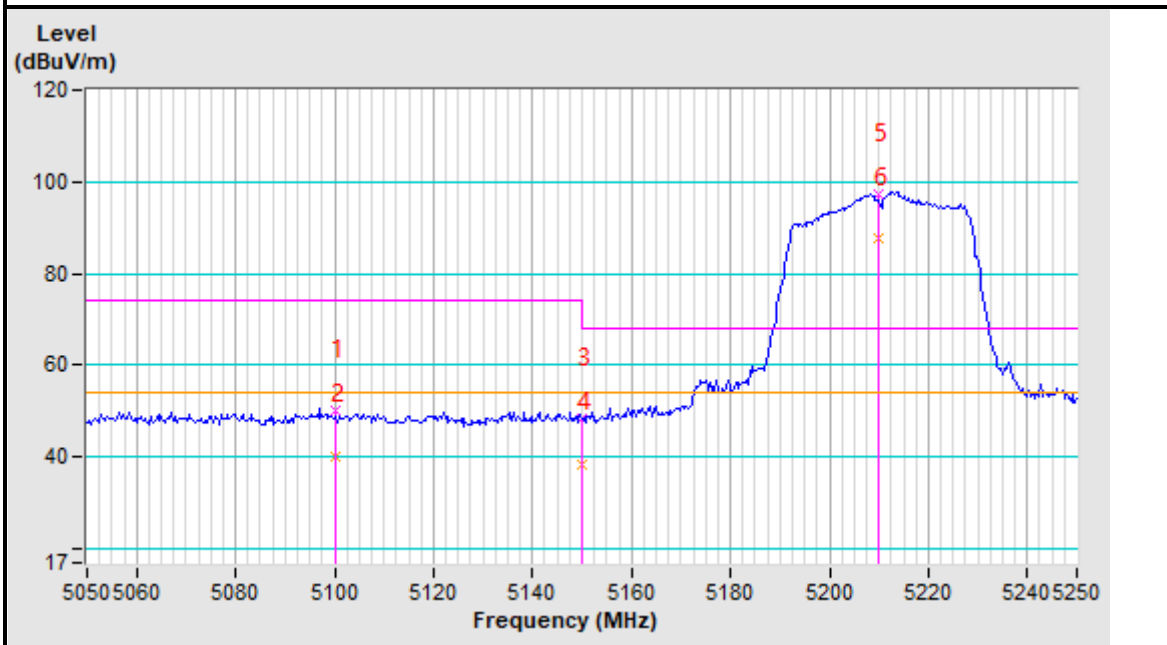


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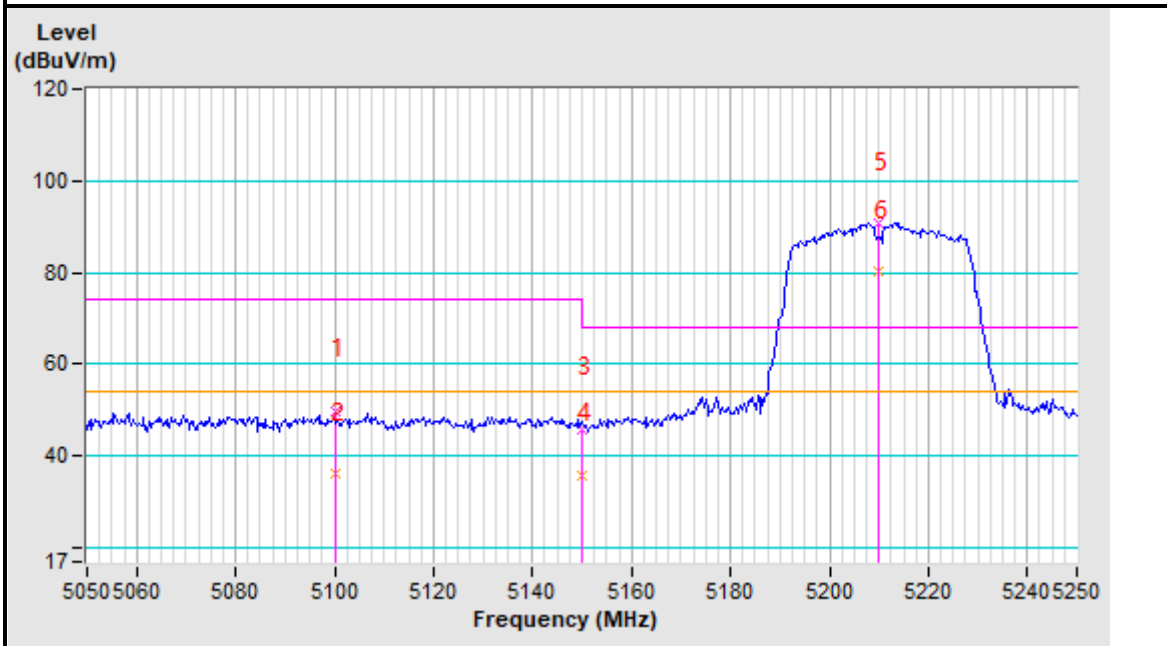
Test Report No.: RF2212WDG0234-3

Band edge Plot

5210MHz Horizontal



5210MHz Vertical





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Test Report No.: RF2212WDG0234-3

BAND (U-NII-2A) (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	5100.00	48.3 PK	74.0	-25.8	1.00 H	265	40.3	8.0
2	5100.00	38.2 AV	54.0	-15.8	1.00 H	265	30.2	8.0
3	5150.00	47.3 PK	74.0	-26.7	1.00 H	265	39.5	7.7
4	5150.00	36.6 AV	54.0	-17.4	1.00 H	265	28.9	7.7
5	*5260.00	98.3 PK			1.00 H	265	91.2	7.1
6	*5260.00	89.5 AV			1.00 H	265	82.4	7.1
7	5350.00	48.4 PK	74.0	-25.6	1.00 H	265	41.7	6.7
8	5350.00	39.1 AV	54.0	-14.9	1.00 H	265	32.4	6.7
9	5400.00	50.2 PK	74.0	-23.8	1.00 H	265	43.8	6.4
10	5400.00	40.1 AV	54.0	-13.9	1.00 H	265	33.7	6.4
11	#10520.00	49.0 PK	68.2	-19.2	1.78 H	0	39.1	9.9
12	15780.00	49.3 PK	74.0	-24.8	1.50 H	0	27.8	21.4
13	15780.00	38.7 AV	54.0	-15.3	1.50 H	0	17.3	21.4

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	49.8 PK	74.0	-24.2	1.00 V	220	42.0	7.8
2	5145.00	38.1 AV	54.0	-15.9	1.00 V	220	30.4	7.8
3	5150.00	47.6 PK	74.0	-26.4	1.00 V	220	39.9	7.7
4	5150.00	37.5 AV	54.0	-16.6	1.00 V	220	29.7	7.7
5	*5260.00	90.4 PK			1.00 V	220	83.2	7.1
6	*5260.00	81.4 AV			1.00 V	220	74.3	7.1
7	5350.00	49.5 PK	74.0	-24.5	1.00 V	220	42.9	6.7
8	5350.00	38.3 AV	54.0	-15.8	1.00 V	220	31.6	6.7
9	5400.00	51.0 PK	74.0	-23.0	1.00 V	220	44.6	6.4
10	5400.00	36.8 AV	54.0	-17.2	1.00 V	220	30.4	6.4
11	#10520.00	48.2 PK	68.2	-20.0	1.50 V	220	38.3	9.9
12	15780.00	58.1 PK	74.0	-15.9	1.24 V	84	36.7	21.4
13	15780.00	45.2 AV	54.0	-8.8	1.24 V	84	23.8	21.4

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	98.5 PK			1.00 H	256	91.6	6.9
2	*5300.00	87.6 AV			1.00 H	256	80.7	6.9
3	5350.00	49.2 PK	74.0	-24.8	1.00 H	256	42.5	6.7
4	5350.00	36.5 AV	54.0	-17.5	1.00 H	256	29.8	6.7
5	5450.00	50.3 PK	74.0	-23.7	1.00 H	256	44.2	6.1
6	5450.00	40.1 AV	54.0	-13.9	1.00 H	256	34.0	6.1
7	10600.00	49.8 PK	74.0	-24.2	1.40 H	210	39.8	10.0
8	10600.00	40.2 AV	54.0	-13.8	1.40 H	210	30.3	10.0
9	15900.00	51.3 PK	74.0	-22.7	1.24 H	320	29.5	21.8
10	15900.00	40.2 AV	54.0	-13.8	1.24 H	320	18.4	21.8

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	91.5 PK			1.04 V	280	84.6	6.9
2	*5300.00	82.5 AV			1.04 V	280	75.5	6.9
3	5350.00	51.2 PK	74.0	-22.9	1.04 V	280	44.5	6.7
4	5350.00	40.3 AV	54.0	-13.7	1.04 V	280	33.6	6.7
5	5400.00	49.3 PK	74.0	-24.8	1.04 V	280	42.9	6.4
6	5400.00	39.2 AV	54.0	-14.8	1.04 V	280	32.8	6.4
7	10600.00	49.3 PK	74.0	-24.7	1.04 V	280	39.3	10.0
8	10600.00	36.9 AV	54.0	-17.1	1.04 V	280	26.9	10.0
9	15900.00	51.3 PK	74.0	-22.7	1.55 V	80	29.5	21.8
10	15900.00	41.3 AV	54.0	-12.7	1.55 V	80	19.5	21.8

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.6 PK			1.19 H	265	94.8	6.8
2	*5320.00	91.0 AV			1.19 H	265	84.1	6.8
3	5350.00	50.3 PK	74.0	-23.8	1.19 H	255	43.6	6.7
4	5350.00	37.6 AV	54.0	-16.4	1.19 H	255	30.9	6.7
5	5361.00	48.8 PK	74.0	-25.2	1.19 H	265	42.2	6.6
6	5361.00	38.0 AV	54.0	-16.0	1.19 H	265	31.4	6.6
7	10640.00	49.8 PK	74.0	-24.2	1.40 H	12	39.8	10.0
8	10640.00	38.8 AV	54.0	-15.2	1.40 H	12	28.8	10.0
9	15960.00	50.5 PK	74.0	-23.5	1.20 H	301	28.5	22.0
10	15960.00	41.2 AV	54.0	-12.8	1.20 H	301	19.2	22.0

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.2 PK			1.17 V	219	87.4	6.8
2	*5320.00	84.6 AV			1.17 V	219	77.8	6.8
3	5350.00	49.0 PK	74.0	-25.0	1.17 V	219	42.3	6.7
4	5350.00	36.5 AV	54.0	-17.5	1.17 V	219	29.8	6.7
5	5361.00	46.8 PK	74.0	-27.2	1.17 V	219	40.2	6.6
6	5361.00	37.0 AV	54.0	-17.0	1.17 V	219	30.4	6.6
7	10640.00	49.6 PK	74.0	-24.4	1.20 V	360	39.6	10.0
8	10640.00	38.7 AV	54.0	-15.3	1.20 V	360	28.7	10.0
9	15960.00	58.9 PK	74.0	-15.1	1.54 V	124	36.9	22.0
10	15960.00	45.9 AV	54.0	-8.1	1.54 V	124	23.9	22.0

REMARKS:

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

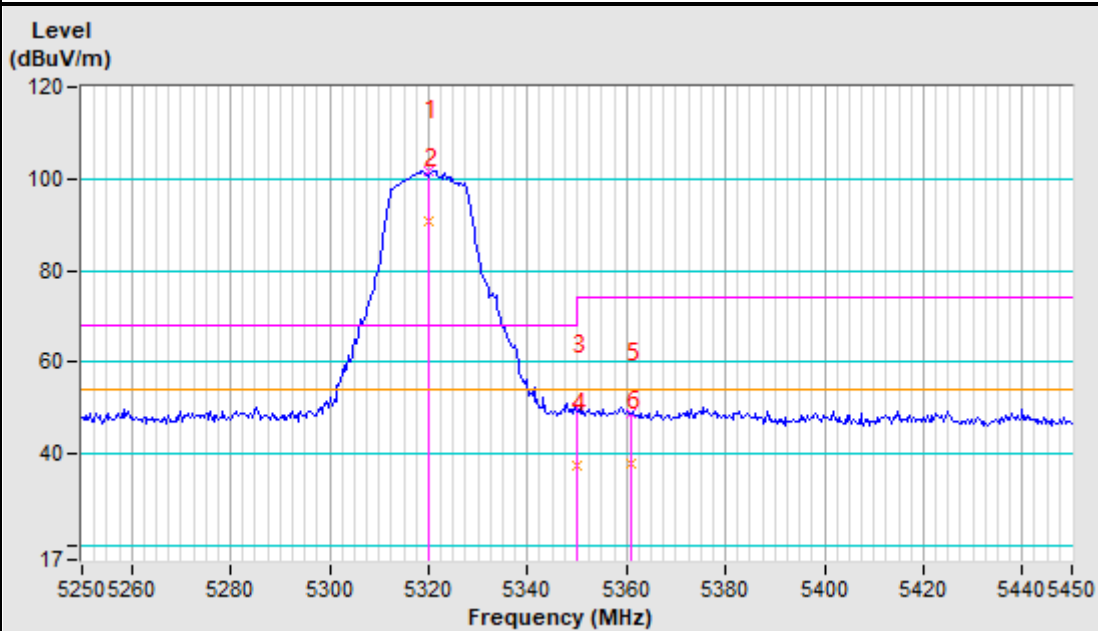


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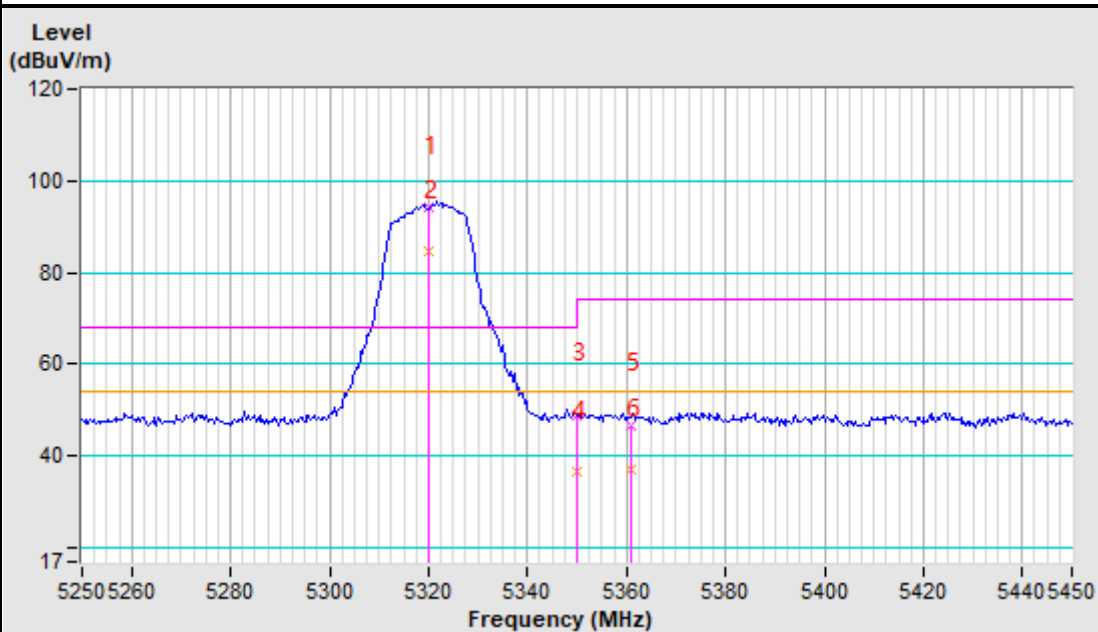
Test Report No.: RF2212WDG0234-3

Band edge Plot

5320MHz Horizontal



5320MHz Vertical





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Test Report No.: RF2212WDG0234-3

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	5100.00	49.4 PK	74.0	-24.6	1.04 H	29	41.4	8.0
2	5100.00	40.3 AV	54.0	-13.7	1.04 H	29	32.3	8.0
3	5150.00	48.9 PK	74.0	-25.1	1.04 H	29	41.2	7.7
4	5150.00	40.3 AV	54.0	-13.7	1.04 H	29	32.6	7.7
5	*5260.00	101.3 PK			1.04 H	29	94.2	7.1
6	*5260.00	90.3 AV			1.04 H	29	83.2	7.1
7	5350.00	52.0 PK	74.0	-22.0	1.04 H	29	45.3	6.7
8	5350.00	41.3 AV	54.0	-12.7	1.04 H	29	34.6	6.7
9	5358.00	50.1 PK	74.0	-23.9	1.04 H	29	43.5	6.6
10	5358.00	40.3 AV	54.0	-13.7	1.04 H	29	33.7	6.6
11	#10520.00	50.4 PK	68.2	-17.8	1.50 H	0	40.5	9.9
12	15780.00	51.3 PK	74.0	-22.7	1.50 H	0	29.9	21.4
13	15780.00	41.3 AV	54.0	-12.7	1.50 H	0	19.9	21.4

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5100.00	49.3 PK	74.0	-24.7	1.00 V	150	41.3	8.0
2	5100.00	40.4 AV	54.0	-13.6	1.00 V	150	32.4	8.0
3	5150.00	48.8 PK	74.0	-25.2	1.00 V	250	41.1	7.7
4	5150.00	37.3 AV	54.0	-16.7	1.00 V	250	29.6	7.7
5	*5260.00	93.2 PK			1.00 V	250	86.0	7.1
6	*5260.00	84.6 AV			1.00 V	250	77.5	7.1
7	5350.00	51.3 PK	74.0	-22.7	1.00 V	250	44.6	6.7
8	5350.00	40.4 AV	54.0	-13.6	1.00 V	250	33.7	6.7
9	5358.00	50.2 PK	74.0	-23.8	1.00 V	250	43.6	6.6
10	5358.00	39.5 AV	54.0	-14.5	1.00 V	250	32.9	6.6
11	#10520.00	49.8 PK	68.2	-18.4	1.00 V	109	39.9	9.9
12	15780.00	55.3 PK	74.0	-18.7	1.54 V	220	33.9	21.4
13	15780.00	43.8 AV	54.0	-10.2	1.54 V	220	22.4	21.4

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	102.3 PK			1.00 H	200	95.4	6.9
2	*5300.00	91.2 AV			1.00 H	200	84.3	6.9
3	5350.00	50.8 PK	74.0	-23.2	1.00 H	200	44.1	6.7
4	5350.00	40.3 AV	54.0	-13.7	1.00 H	200	33.6	6.7
5	5400.00	50.2 PK	74.0	-23.8	1.00 H	200	43.8	6.4
6	5400.00	41.4 AV	54.0	-12.6	1.00 H	200	35.0	6.4
7	10600.00	48.7 PK	74.0	-25.3	1.09 H	220	38.7	10.0
8	10600.00	40.4 AV	54.0	-13.6	1.09 H	220	30.4	10.0
9	15900.00	58.4 PK	74.0	-15.6	1.00 H	120	36.6	21.8
10	15900.00	47.6 AV	54.0	-6.5	1.00 H	120	25.7	21.8

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	96.7 PK			1.04 V	256	89.8	6.9
2	*5300.00	85.2 AV			1.04 V	256	78.3	6.9
3	5350.00	51.3 PK	74.0	-22.7	1.04 V	256	44.6	6.7
4	5350.00	40.3 AV	54.0	-13.7	1.04 V	256	33.6	6.7
5	5400.00	49.9 PK	74.0	-24.1	1.04 V	256	43.5	6.4
6	5400.00	40.3 AV	54.0	-13.7	1.04 V	256	33.9	6.4
7	10600.00	52.3 PK	74.0	-21.7	1.00 V	21	42.3	10.0
8	10600.00	41.3 AV	54.0	-12.7	1.00 V	21	31.3	10.0
9	15900.00	58.6 PK	74.0	-15.4	1.00 V	310	36.8	21.8
10	15900.00	47.8 AV	54.0	-6.2	1.00 V	310	26.0	21.8

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	100.9 PK			1.10 H	256	94.1	6.8
2	*5320.00	90.9 AV			1.10 H	256	84.1	6.8
3	5350.00	49.9 PK	74.0	-24.1	1.10 H	266	43.3	6.7
4	5350.00	38.2 AV	54.0	-15.8	1.10 H	266	31.6	6.7
5	5375.00	47.4 PK	74.0	-26.6	1.10 H	266	40.9	6.5
6	5375.00	37.4 AV	54.0	-16.6	1.10 H	266	30.9	6.5
7	10640.00	49.0 PK	74.0	-25.0	1.10 H	50	39.0	10.0
8	10640.00	37.6 AV	54.0	-16.4	1.10 H	50	27.6	10.0
9	15960.00	58.2 PK	74.0	-15.8	1.24 H	89	36.2	22.0
10	15960.00	45.3 AV	54.0	-8.7	1.24 H	89	23.3	22.0

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	93.9 PK			1.10 V	219	87.1	6.8
2	*5320.00	83.6 AV			1.10 V	219	76.8	6.8
3	5350.00	49.0 PK	74.0	-25.0	1.10 V	219	42.3	6.7
4	5350.00	36.7 AV	54.0	-17.3	1.10 V	219	30.0	6.7
5	5375.00	48.5 PK	74.0	-25.5	1.10 V	219	42.0	6.5
6	5375.00	37.6 AV	54.0	-16.4	1.10 V	219	31.0	6.5
7	10640.00	49.2 PK	74.0	-24.8	1.50 V	0	39.2	10.0
8	10640.00	37.4 AV	54.0	-16.6	1.50 V	0	27.4	10.0
9	15960.00	55.4 PK	74.0	-18.6	1.40 V	323	33.4	22.0
10	15960.00	46.1 AV	54.0	-7.9	1.40 V	323	24.1	22.0

REMARKS:

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

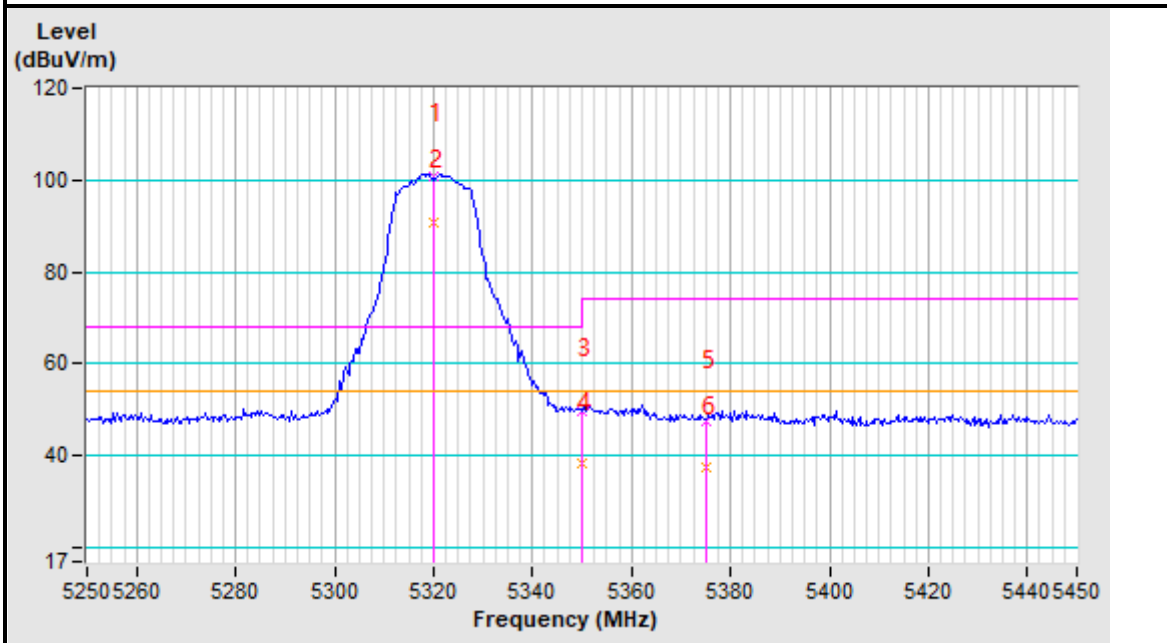


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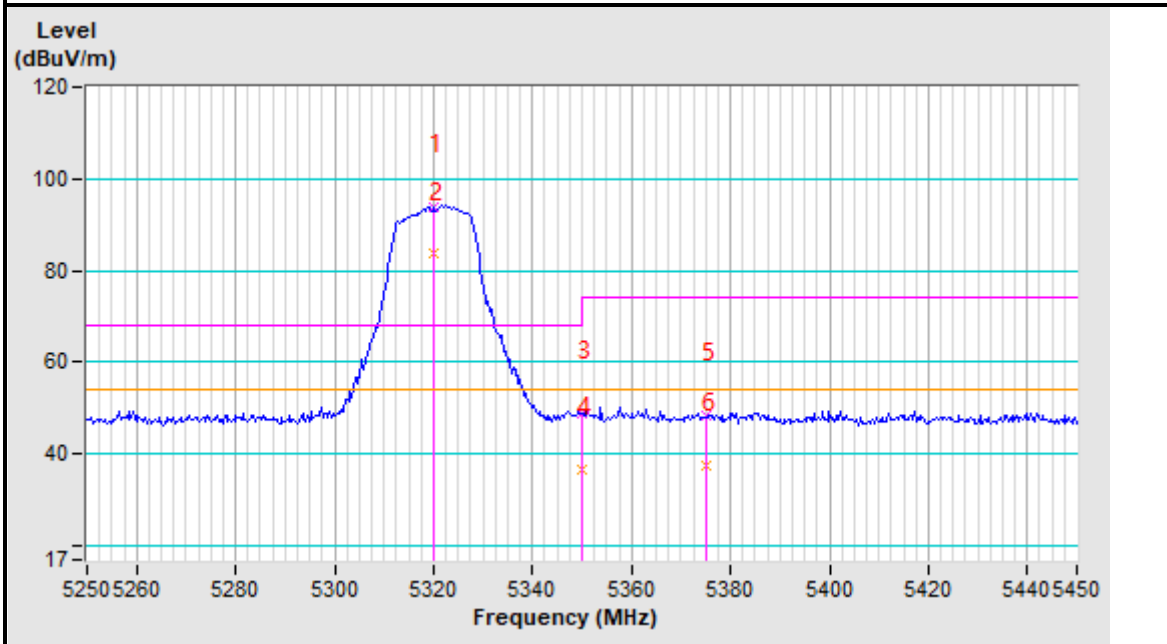
Test Report No.: RF2212WDG0234-3

Band edge Plot

5320MHz Horizontal



5320MHz Vertical



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	99.2 PK			1.04 H	256	92.1	7.1
2	*5270.00	88.5 AV			1.04 H	256	81.4	7.1
3	5350.00	51.3 PK	74.0	-22.7	1.04 H	256	44.6	6.7
4	5350.00	42.0 AV	54.0	-12.0	1.04 H	256	35.3	6.7
5	5450.00	50.3 PK	74.0	-23.7	1.04 H	216	44.1	6.1
6	5450.00	40.3 AV	54.0	-13.7	1.04 H	216	34.2	6.1
7	#10540.00	51.0 PK	68.2	-17.2	1.70 H	100	41.1	9.9
8	15810.00	56.9 PK	74.0	-17.1	2.00 H	290	35.4	21.5
9	15810.00	46.5 AV	54.0	-7.5	2.00 H	290	25.0	21.5

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	91.3 PK			1.00 V	216	84.2	7.1
2	*5270.00	82.1 AV			1.00 V	216	75.1	7.1
3	5350.00	48.8 PK	74.0	-25.2	1.00 V	216	42.1	6.7
4	5350.00	38.0 AV	54.0	-16.0	1.00 V	216	31.3	6.7
5	5450.00	50.6 PK	74.0	-23.4	1.00 V	216	44.5	6.1
6	5450.00	40.2 AV	54.0	-13.9	1.00 V	216	34.0	6.1
7	#10540.00	51.3 PK	68.2	-16.9	1.50 V	0	41.4	9.9
8	15810.00	59.3 PK	74.0	-14.7	1.20 V	90	37.8	21.5
9	15810.00	46.8 AV	54.0	-7.2	1.20 V	90	25.3	21.5

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.



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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	95.9 PK			1.00 H	280	89.1	6.9
2	*5310.00	86.2 AV			1.00 H	280	79.3	6.9
3	5350.00	49.5 PK	74.0	-24.5	1.00 H	280	42.9	6.7
4	5350.00	37.5 AV	54.0	-16.5	1.00 H	280	30.8	6.7
5	5355.00	47.9 PK	74.0	-26.1	1.00 H	280	41.2	6.6
6	5355.00	37.5 AV	54.0	-16.5	1.00 H	280	30.9	6.6
7	#10540.00	49.3 PK	68.2	-19.0	1.00 H	290	39.3	9.9
8	#10540.00	40.4 AV	54.0	-13.6	1.00 H	290	30.5	9.9
9	15930.00	59.2 PK	74.0	-14.8	1.02 H	20	37.3	21.9
10	15930.00	47.0 AV	54.0	-7.0	1.02 H	20	25.1	21.9

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	90.3 PK			1.00 V	219	83.5	6.9
2	*5310.00	80.5 AV			1.00 V	219	73.6	6.9
3	5350.00	48.8 PK	74.0	-25.2	1.00 V	219	42.1	6.7
4	5350.00	36.8 AV	54.0	-17.2	1.00 V	219	30.2	6.7
5	5355.00	47.0 PK	74.0	-27.0	1.00 V	219	40.4	6.6
6	5355.00	36.6 AV	54.0	-17.5	1.00 V	219	29.9	6.6
7	10620.00	51.3 PK	74.0	-22.7	1.40 V	88	41.3	10.0
8	10620.00	41.1 AV	54.0	-12.9	1.40 V	88	31.1	10.0
9	15930.00	58.8 PK	74.0	-15.2	1.70 V	110	36.9	21.9
10	15930.00	46.0 AV	54.0	-8.0	1.70 V	110	24.1	21.9

REMARKS:

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

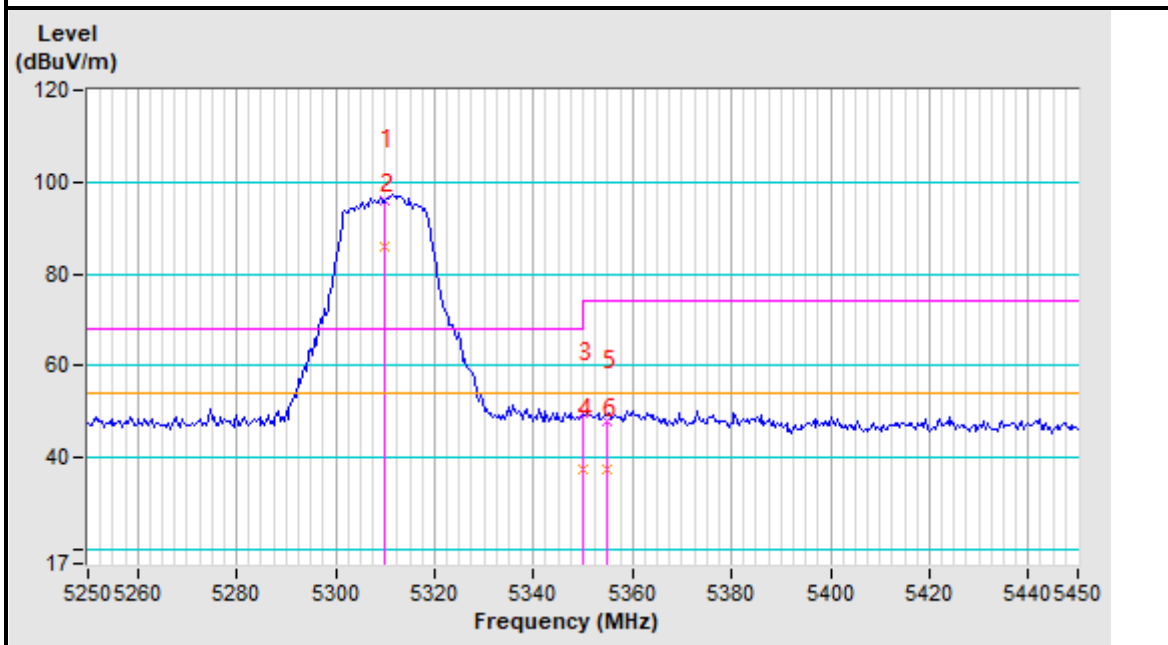


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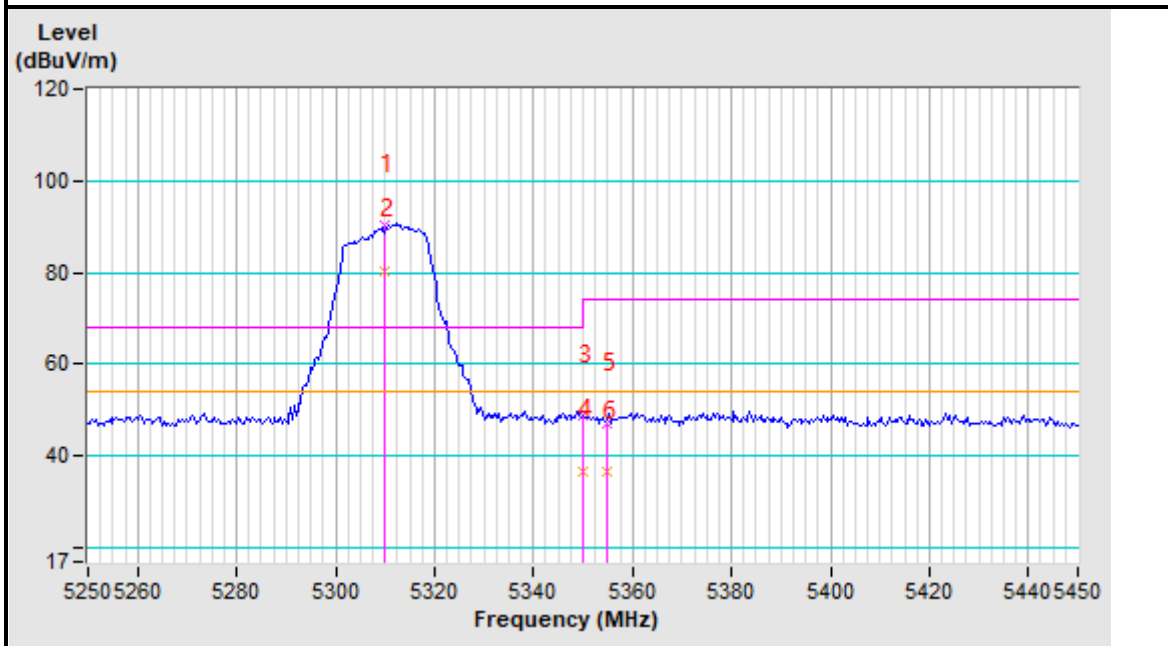
Test Report No.: RF2212WDG0234-3

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	97.4 PK			1.20 H	267	90.4	7.0
2	*5290.00	86.4 AV			1.20 H	267	79.4	7.0
3	5350.00	49.6 PK	74.0	-24.4	1.20 H	267	43.0	6.7
4	5350.00	37.8 AV	54.0	-16.2	1.20 H	267	31.1	6.7
5	5355.00	48.7 PK	74.0	-25.3	1.20 H	267	42.1	6.6
6	5355.00	38.0 AV	54.0	-16.0	1.20 H	267	31.4	6.6
7	#10580.00	48.7 PK	68.2	-19.5	1.70 H	300	38.7	10.0
8	15870.00	59.8 PK	74.0	-14.2	1.00 H	300	38.0	21.7
9	15870.00	45.7 AV	54.0	-8.3	1.00 H	300	24.0	21.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	89.0 PK			1.00 V	221	82.1	7.0
2	*5290.00	78.1 AV			1.00 V	221	71.1	7.0
3	5350.00	49.1 PK	74.0	-24.9	1.00 V	221	42.4	6.7
4	5350.00	37.1 AV	54.0	-16.9	1.00 V	221	30.4	6.7
5	5400.00	47.0 PK	74.0	-27.0	1.00 V	221	40.6	6.4
6	5400.00	36.5 AV	54.0	-17.5	1.00 V	221	30.1	6.4
7	#10580.00	49.8 PK	68.2	-18.4	1.00 V	200	39.8	10.0
8	15780.00	51.6 PK	74.0	-22.5	1.00 V	89	30.1	21.4
9	15780.00	41.9 AV	54.0	-12.1	1.00 V	89	20.5	21.4

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

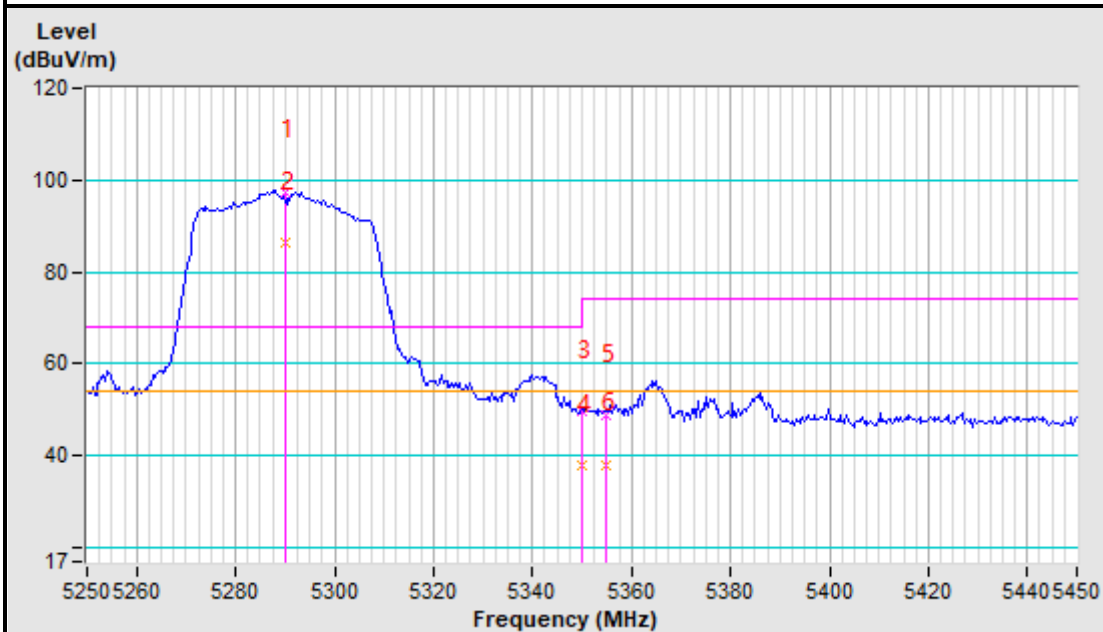


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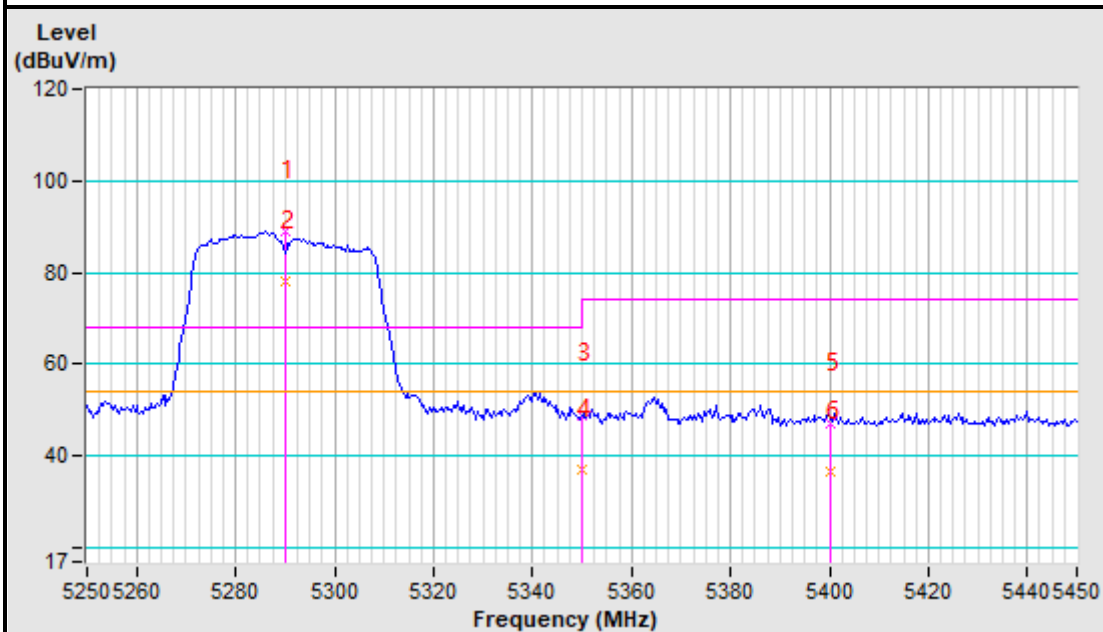
Test Report No.: RF2212WDG0234-3

Band edge Plot

5290MHz Horizontal



5290MHz Vertical





Band (U-NII-2C) (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	5450.00	47.79 PK	74.00	-26.21	1.00 H	264	41.65	6.14
2	5470.00	47.62 AV	68.20	-20.58	1.00 H	264	41.59	6.03
3	*5500.00	95.87 PK			1.00 H	264	90.00	5.87
4	*5500.00	84.06 AV			1.00 H	264	78.19	5.87
5	11000.00	50.3 PK	74.0	-23.7	1.50 H	0	40.0	10.3
6	11000.00	40.4 AV	54.0	-13.6	1.50 H	0	30.1	10.3
7	#16500.00	58.4 PK	68.2	-9.8	1.45 H	202	37.5	20.9
8	#16500.00	45.9 AV	54.0	-8.1	1.45 H	202	25.0	20.9

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5450.00	47.73 PK	74.00	-26.27	1.00 V	184	41.59	6.14
2	5470.00	46.90 AV	68.20	-21.30	1.00 V	184	40.87	6.03
3	*5500.00	89.28 PK			1.00 V	184	83.41	5.87
4	*5500.00	80.20 AV			1.00 V	184	74.33	5.87
5	11000.00	50.4 PK	74.0	-23.6	1.24 V	39	40.1	10.3
6	11000.00	40.3 AV	54.0	-13.7	1.24 V	39	30.0	10.3
7	#16500.00	51.3 PK	68.2	-16.9	1.50 V	0	30.4	20.9

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

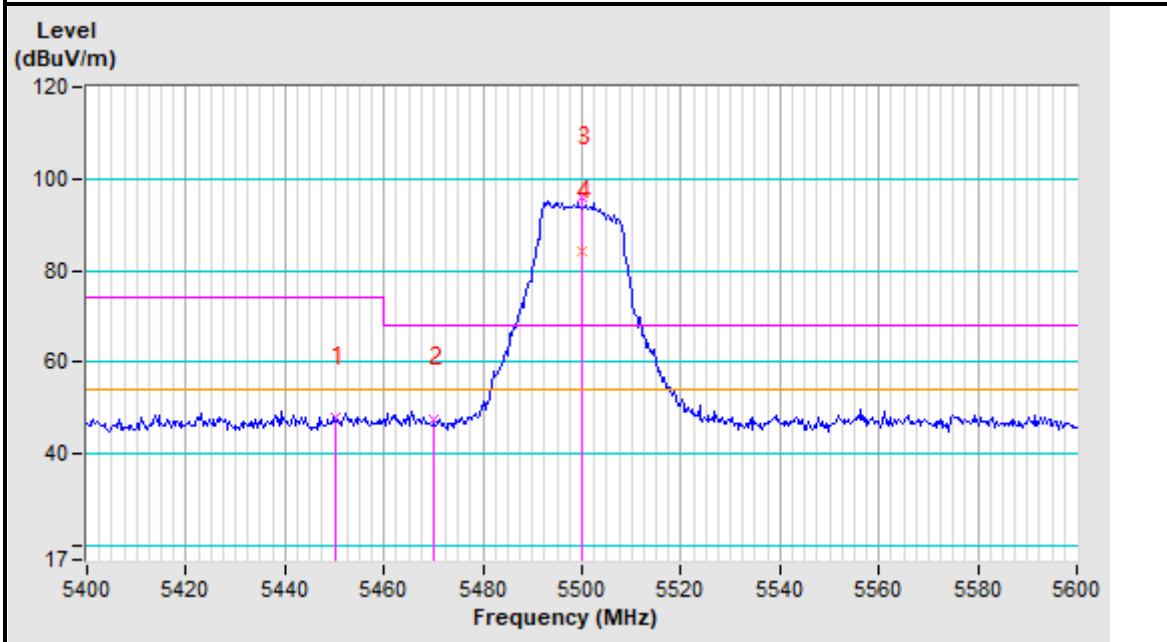


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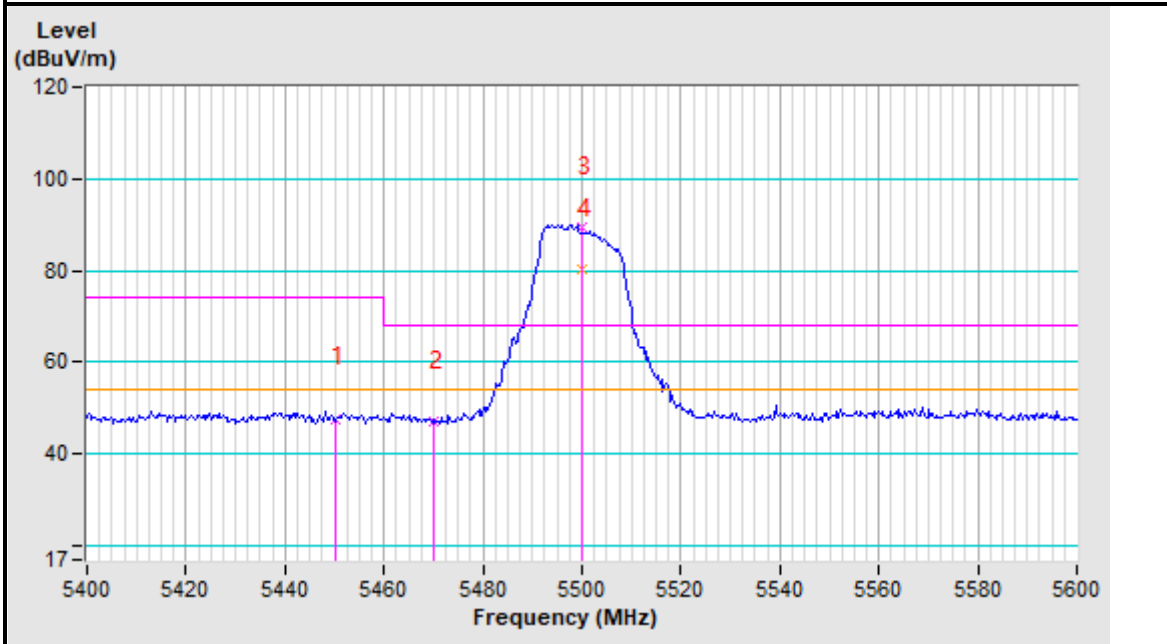
Test Report No.: RF2212WDG0234-3

Band edge Plot

5500MHz Horizontal



5500MHz Vertical





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	47.2 PK	68.2	-21.0	1.00 H	350	41.2	6.0
2	*5580.00	91.7 PK			1.00 H	360	85.6	6.2
3	*5580.00	82.5 AV			1.00 H	360	76.4	6.2
4	11600.00	51.2 PK	74.0	-22.8	1.00 H	198	37.7	13.5
5	11600.00	38.9 AV	54.0	-15.1	1.00 H	198	25.4	13.5
6	#16740.00	58.3 PK	68.2	-9.9	1.00 H	200	36.6	21.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.2 PK	68.2	-21.0	1.00 V	20	41.2	6.0
2	*5580.00	99.3 PK			1.00 V	160	93.2	6.2
3	*5580.00	89.1 AV			1.00 V	160	82.9	6.2
4	11160.00	50.4 PK	74.0	-23.6	1.50 V	0	39.3	11.2
5	11160.00	40.3 AV	54.0	-13.7	1.50 V	0	29.1	11.2
6	#16740.00	60.0 PK	68.2	-8.2	1.14 V	360	38.3	21.7

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	98.1 PK			1.00 H	283	91.5	6.6
2	*5700.00	88.2 AV			1.00 H	283	81.6	6.6
3	#5722.00	51.9 PK	68.2	-16.3	1.00 H	283	45.2	6.7
4	#5725.00	50.0 PK	68.2	-18.2	1.00 H	283	43.3	6.7
5	11400.00	49.4 PK	74.0	-24.6	1.00 H	10	36.9	12.5
6	11400.00	38.0 AV	54.0	-16.0	1.00 H	10	25.5	12.5
7	#17100.00	58.5 PK	68.2	-9.7	1.00 H	51	35.8	22.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	92.3 PK			1.10 V	212	85.7	6.6
2	*5700.00	82.2 AV			1.10 V	212	75.6	6.6
3	#5720.00	49.6 PK	68.2	-18.6	1.10 V	212	43.0	6.7
4	#5725.00	46.7 PK	68.2	-21.5	1.10 V	212	40.0	6.7
5	11400.00	50.4 PK	74.0	-23.6	1.50 V	100	37.9	12.5
6	11400.00	36.8 AV	54.0	-17.2	1.50 V	100	24.3	12.5
7	#17100.00	60.5 PK	68.2	-7.7	1.00 V	51	37.8	22.7

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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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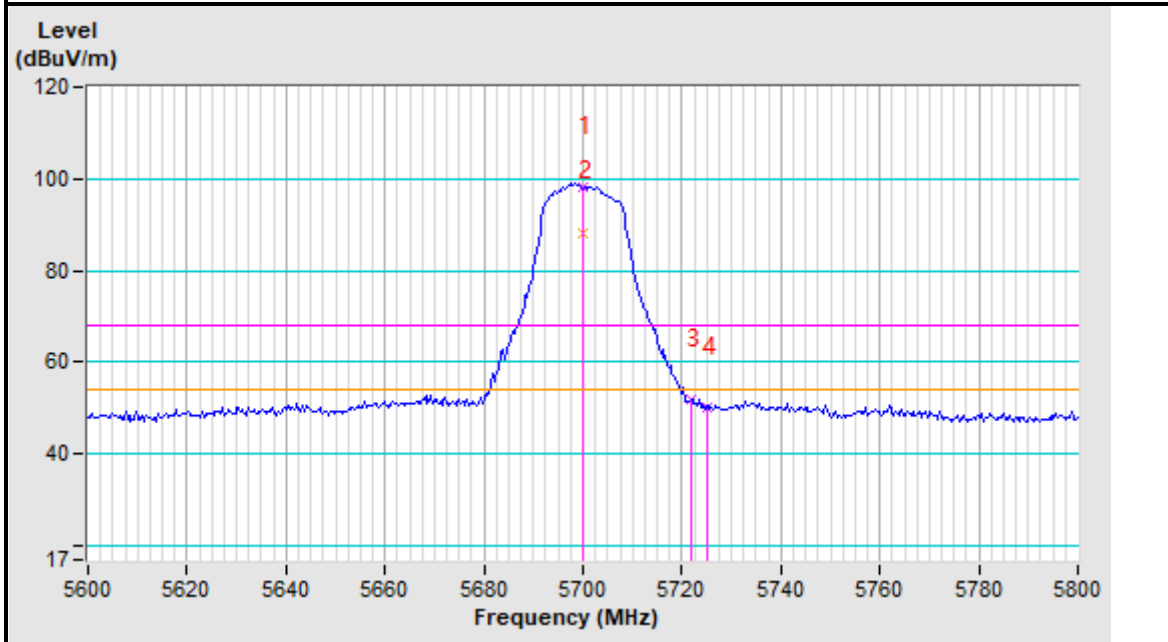


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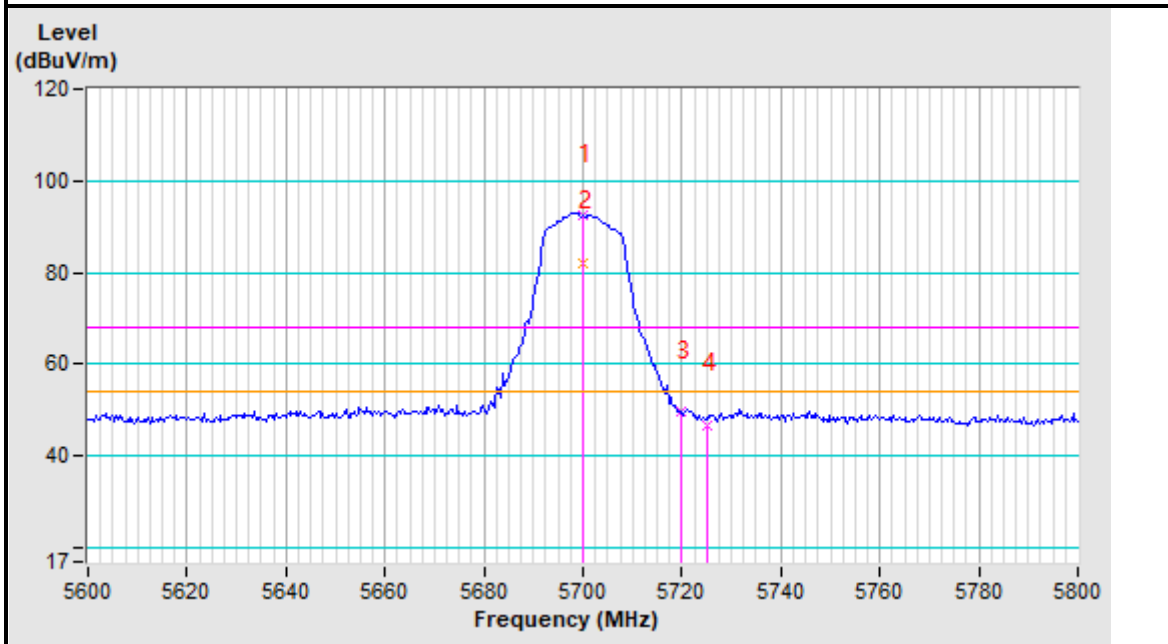
Test Report No.: RF2212WDG0234-3

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.4 PK	68.2	-19.8	1.00 H	270	41.8	6.7
2	*5720.00	105.8 PK			1.00 H	270	98.5	7.3
3	*5720.00	95.2 AV			1.00 H	270	87.9	7.3
4	#5850.00	49.3 PK	68.2	-18.9	1.00 H	270	41.6	7.7
5	11440.00	54.7 PK	74.0	-19.3	1.05 H	62	39.3	15.4
6	11440.00	42.1 AV	54.0	-11.9	1.05 H	62	26.7	15.4
7	#17160.00	61.6 PK	68.2	-6.6	1.00 H	21	38.1	23.5

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.3 PK	68.2	-18.9	1.00 V	322	42.7	6.7
2	*5720.00	102.5 PK			1.00 V	322	95.2	7.3
3	*5720.00	91.3 AV			1.00 V	322	84.0	7.3
4	#5850.00	49.3 PK	68.2	-18.9	1.00 V	322	41.6	7.7
5	11440.00	53.5 PK	74.0	-20.5	1.00 V	84	38.1	15.4
6	11440.00	41.3 AV	54.0	-12.7	1.00 V	84	25.9	15.4
7	#17160.00	61.3 PK	68.2	-7.0	1.00 V	92	37.8	23.5

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

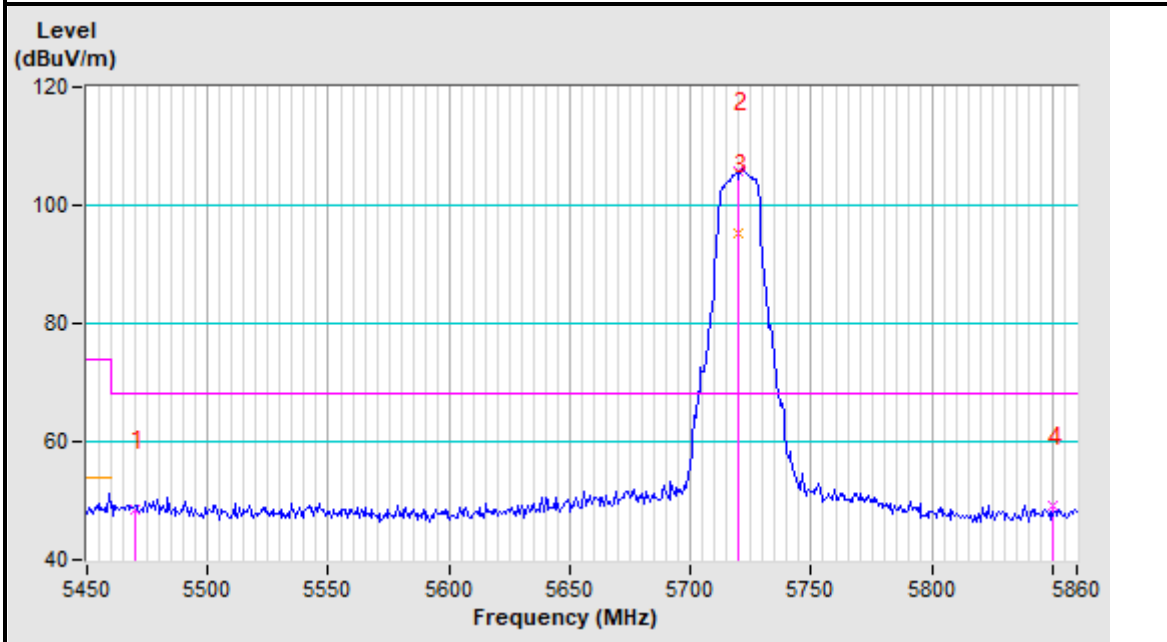


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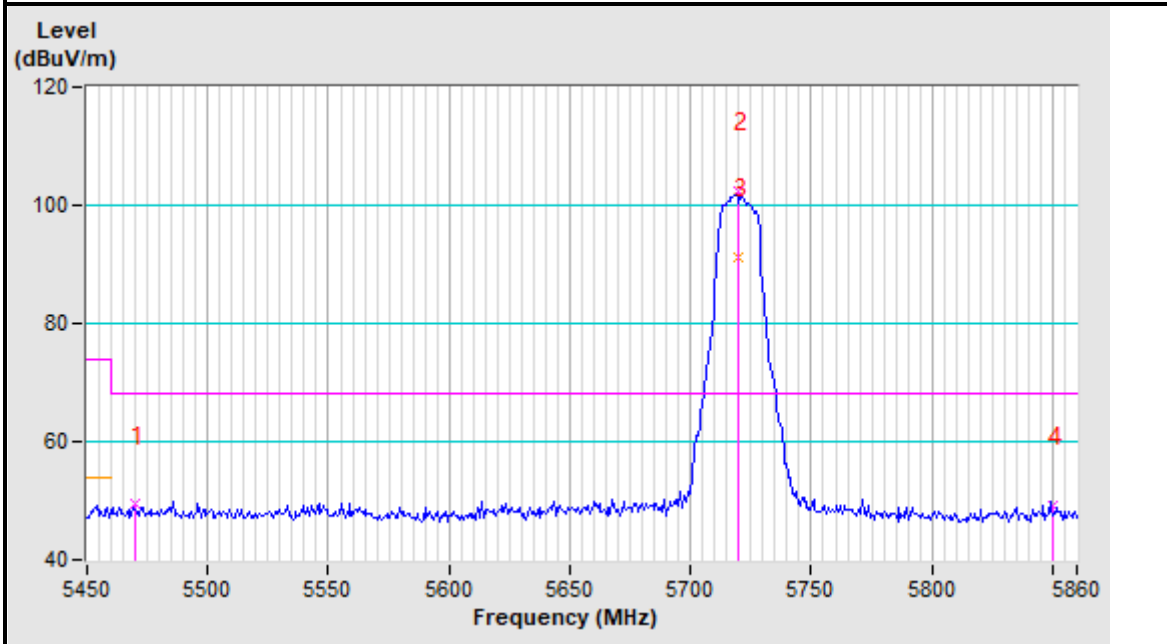
Test Report No.: RF2212WDG0234-3

Band edge Plot

5720MHz Horizontal



5720MHz Vertical





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Test Report No.: RF2212WDG0234-3

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	5440.00	48.39 PK	74.00	-25.61	1.00 H	264	42.20	6.19
2	5470.00	47.83 AV	68.20	-20.37	1.00 H	264	41.80	6.03
3	*5500.00	95.22 PK			1.00 H	264	89.35	5.87
4	*5500.00	84.99 AV			1.00 H	264	79.12	5.87
5	11000.00	51.2 PK	74.0	-22.8	1.00 H	20	40.9	10.3
6	11000.00	40.3 AV	54.0	-13.7	1.00 H	20	29.9	10.3
7	#16500.00	58.9 PK	68.2	-9.3	1.80 H	209	38.0	20.9
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5450.00	48.20 PK	74.00	-25.80	1.00 V	185	42.06	6.14
2	5470.00	46.51 AV	68.20	-21.69	1.00 V	185	40.48	6.03
3	*5500.00	88.81 PK			1.00 V	184	82.94	5.87
4	*5500.00	79.58 AV			1.00 V	184	73.71	5.87
5	11000.00	50.3 PK	74.0	-23.7	1.00 V	300	40.0	10.3
6	11000.00	38.7 AV	54.0	-15.3	1.00 V	300	28.4	10.3
7	#16500.00	60.9 PK	68.2	-7.3	1.80 V	100	40.0	20.9

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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

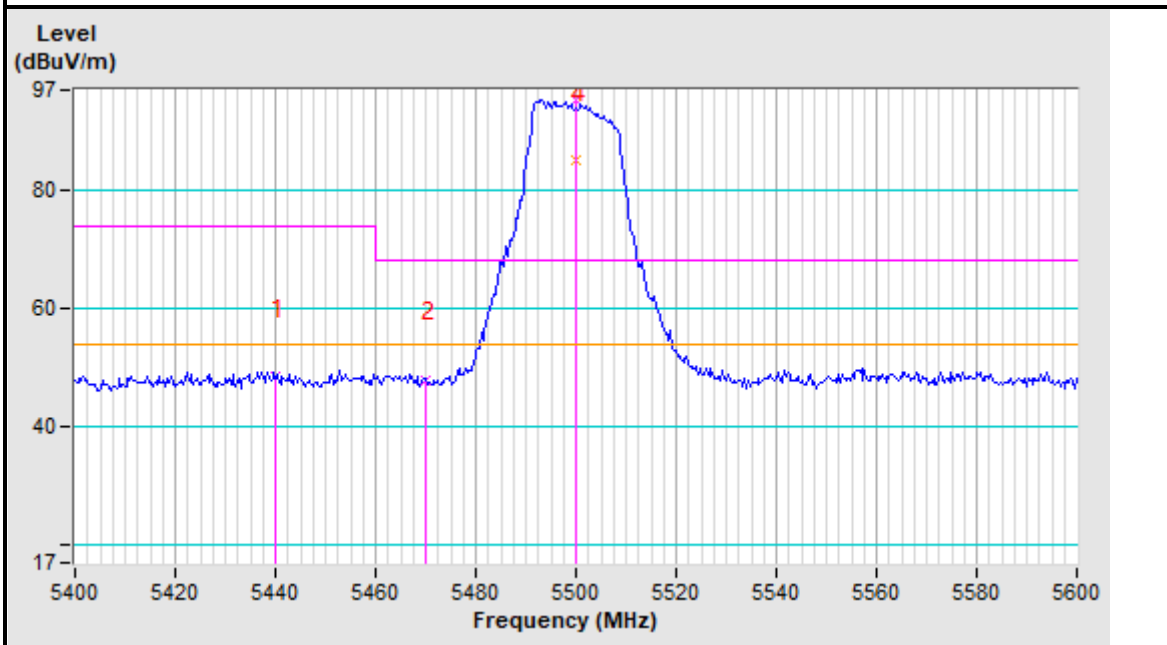
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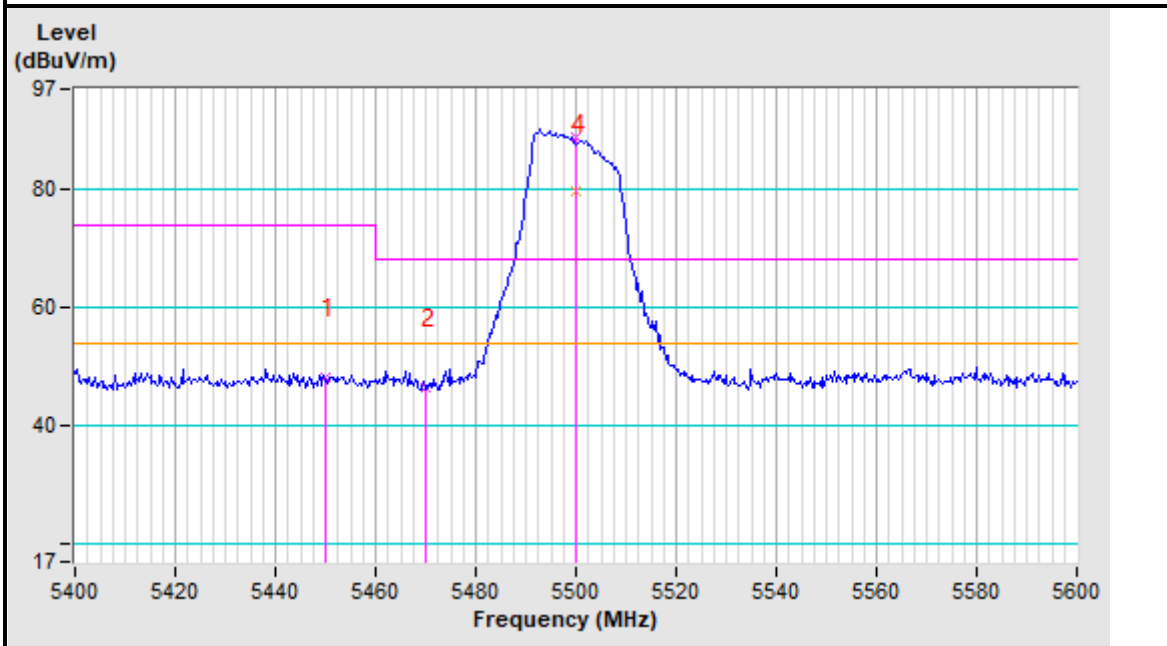


Band edge Plot

5500MHz Horizontal



5500MHz Vertical





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	50.0 PK	68.2	-18.2	1.00 H	218	44.0	6.0
2	*5580.00	96.2 PK			1.00 H	218	90.0	6.2
3	*5580.00	85.7 AV			1.00 H	218	79.5	6.2
4	11160.00	51.5 PK	74.0	-22.5	1.00 H	300	40.3	11.2
5	11160.00	38.7 AV	54.0	-15.3	1.00 H	300	27.5	11.2
6	#16740.00	59.3 PK	68.2	-8.9	1.00 H	90	37.6	21.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.6 PK	68.2	-19.6	1.00 V	216	42.6	6.0
2	*5580.00	91.2 PK			1.00 V	216	85.0	6.2
3	*5580.00	80.3 AV			1.00 V	216	74.2	6.2
4	11160.00	52.3 PK	74.0	-21.7	1.00 V	216	41.1	11.2
5	11160.00	41.9 AV	54.0	-12.1	1.00 V	216	30.7	11.2
6	#16740.00	60.2 PK	68.2	-8.0	1.54 V	12	38.5	21.7

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.8 PK			1.00 H	276	91.2	6.6
2	*5700.00	88.4 AV			1.00 H	276	81.8	6.6
3	#5722.12	51.2 PK	68.2	-17.0	1.00 H	277	44.6	6.7
4	#5725.00	49.0 PK	68.2	-19.3	1.00 H	277	42.3	6.7
5	11400.00	52.4 PK	74.0	-21.6	1.04 H	209	39.9	12.5
6	11400.00	40.2 AV	54.0	-13.8	1.04 H	209	27.7	12.5
7	#17100.00	60.2 PK	68.2	-8.0	1.00 H	200	37.5	22.7

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	90.0 PK			1.04 V	213	83.4	6.6
2	*5700.00	79.3 AV			1.04 V	213	72.7	6.6
3	#5722.76	49.1 PK	68.2	-19.1	1.01 V	213	42.5	6.7
4	#5725.00	48.4 PK	68.2	-19.8	1.01 V	213	41.8	6.7
5	11400.00	50.4 PK	74.0	-23.6	1.00 V	209	37.9	12.5
6	11400.00	40.2 AV	54.0	-13.8	1.00 V	209	27.7	12.5
7	#17100.00	59.0 PK	68.2	-9.2	1.00 V	290	36.3	22.7

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

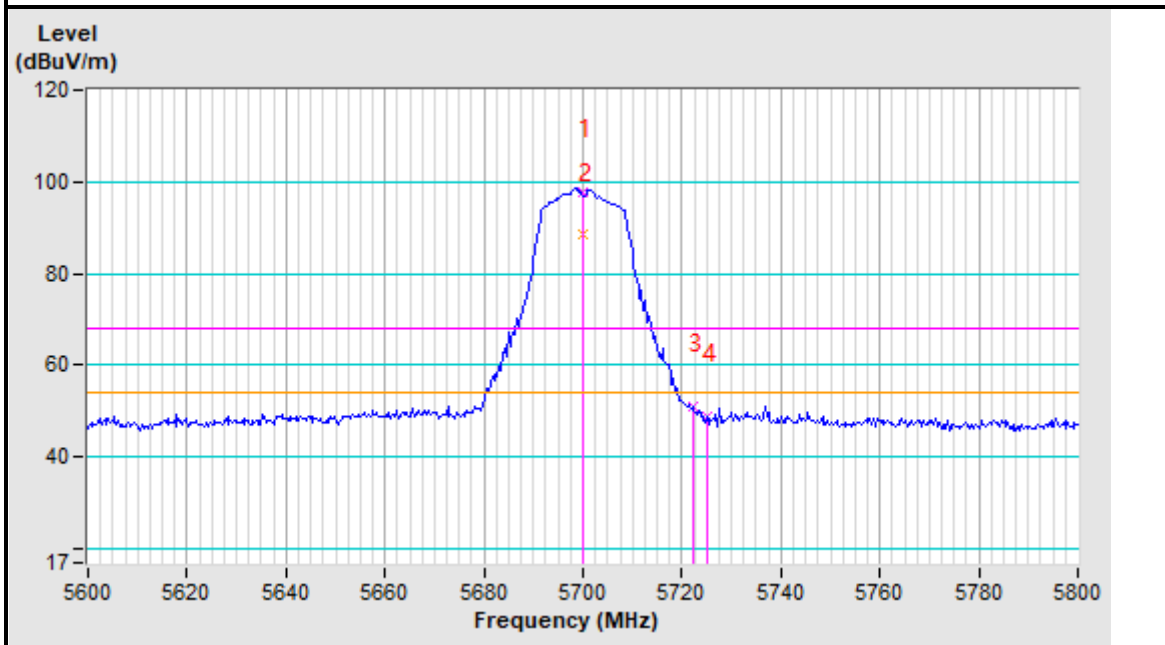


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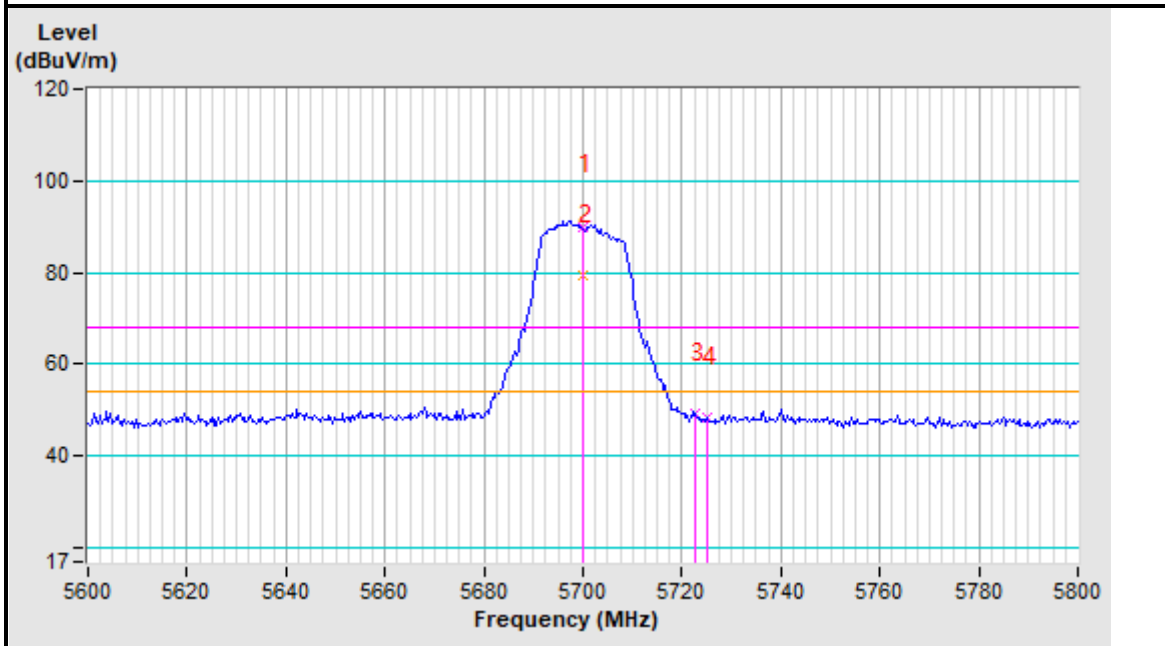
Test Report No.: RF2212WDG0234-3

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.7 PK	68.2	-19.5	1.00 H	317	42.0	6.7
2	*5720.00	103.8 PK			1.00 H	317	96.5	7.3
3	*5720.00	94.3 AV			1.00 H	317	87.0	7.3
4	#5850.00	48.4 PK	68.2	-19.8	1.00 H	317	40.7	7.7
5	11440.00	54.1 PK	74.0	-19.9	1.00 H	47	38.7	15.4
6	11440.00	42.8 AV	54.0	-11.2	1.00 H	47	27.4	15.4
7	#17160.00	60.5 PK	68.2	-7.7	1.00 H	95	37.0	23.5
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.7 PK	68.2	-18.5	1.00 V	50	43.0	6.7
2	*5720.00	100.2 PK			1.00 V	230	93.0	7.3
3	*5720.00	89.8 AV			1.00 V	230	82.5	7.3
4	#5850.00	49.3 PK	68.2	-18.9	1.00 V	120	41.6	7.7
5	11440.00	52.0 PK	74.0	-22.1	1.00 V	38	36.5	15.4
6	11440.00	41.4 AV	54.0	-12.6	1.00 V	38	26.0	15.4
7	#17160.00	62.0 PK	68.2	-6.2	1.00 V	42	38.5	23.5

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

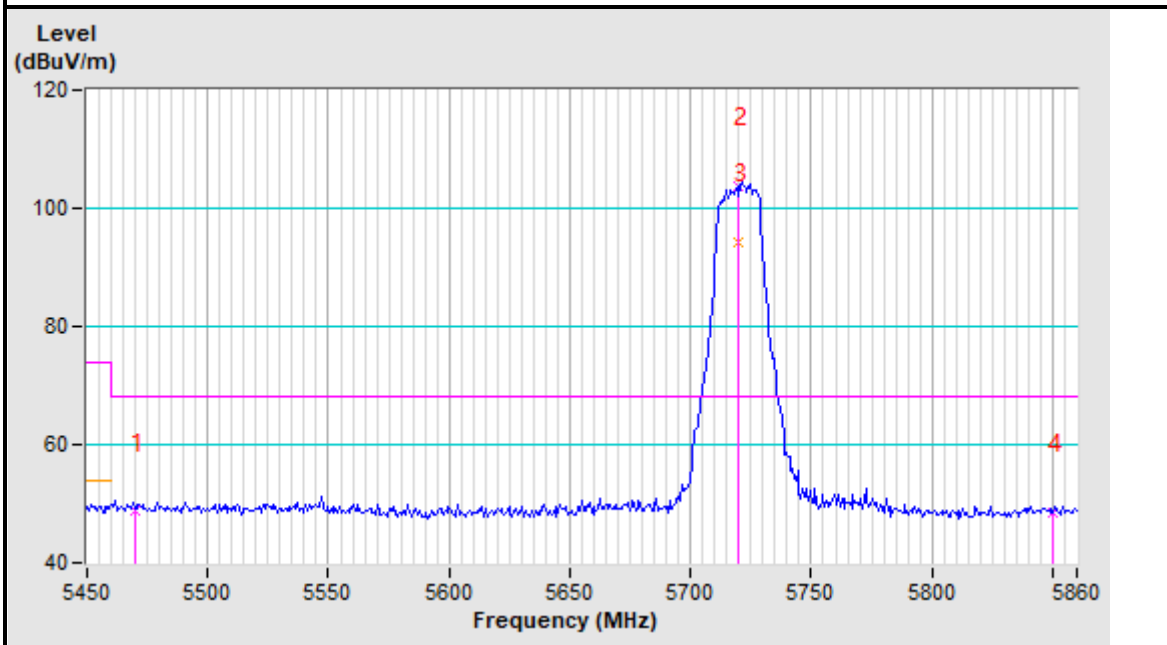


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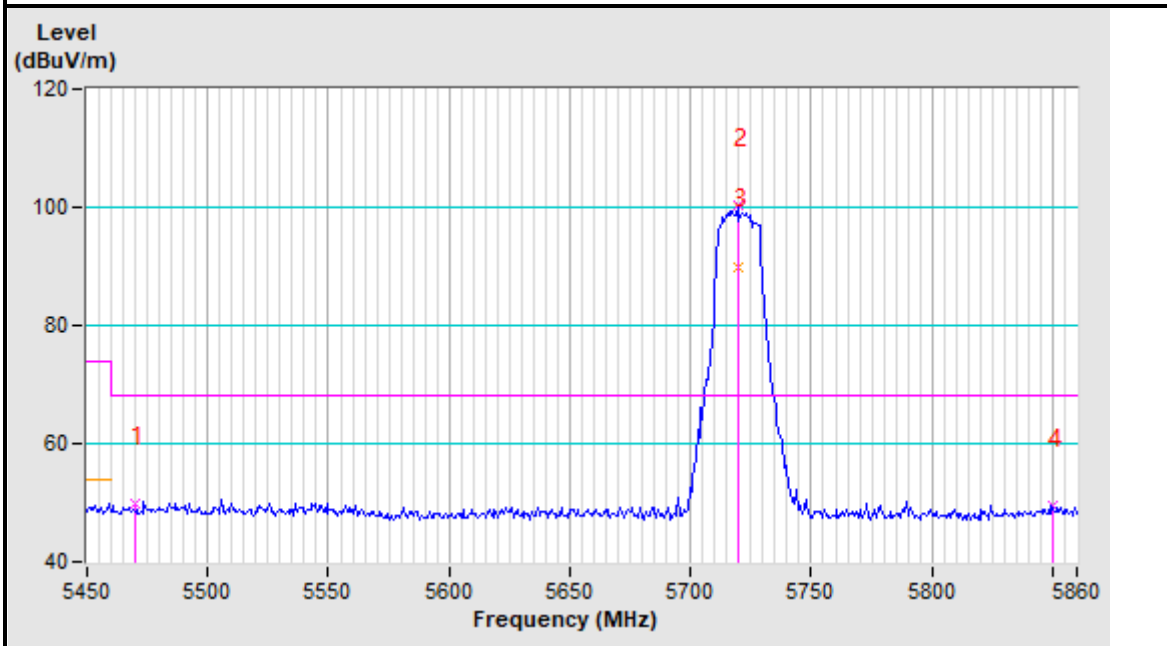
Test Report No.: RF2212WDG0234-3

Band edge Plot

5720MHz Horizontal



5720MHz Vertical





802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5470.00	47.83 PK	68.20	-20.37	1.00 H	213	41.80	6.03
2	*5510.00	89.96 AV			1.00 H	213	84.06	5.90
3	*5510.00	80.24 PK			1.00 H	213	74.34	5.90
4	5546.92	47.08 AV	68.20	-21.12	1.00 H	213	41.04	6.04
5	11020.00	51.9 PK	74.0	-22.1	1.05 H	220	41.5	10.4
6	11020.00	40.3 AV	54.0	-13.7	1.05 H	220	29.9	10.4
7	#16530.00	60.0 PK	68.2	-8.2	1.20 H	80	39.0	21.0
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5454.94	47.28 PK	74.00	-26.72	1.00 V	188	41.17	6.11
2	5470.00	45.76 AV	68.20	-22.44	1.00 V	188	39.73	6.03
3	*5510.00	86.83 PK			1.00 V	188	80.93	5.90
4	*5510.00	78.29 AV			1.00 V	188	72.39	5.90
5	11020.00	53.2 PK	74.0	-20.8	1.50 V	109	42.8	10.4
6	11020.00	42.0 AV	54.0	-12.0	1.50 V	109	31.6	10.4
7	#16530.00	59.4 PK	68.2	-8.8	1.25 V	200	38.4	21.0

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

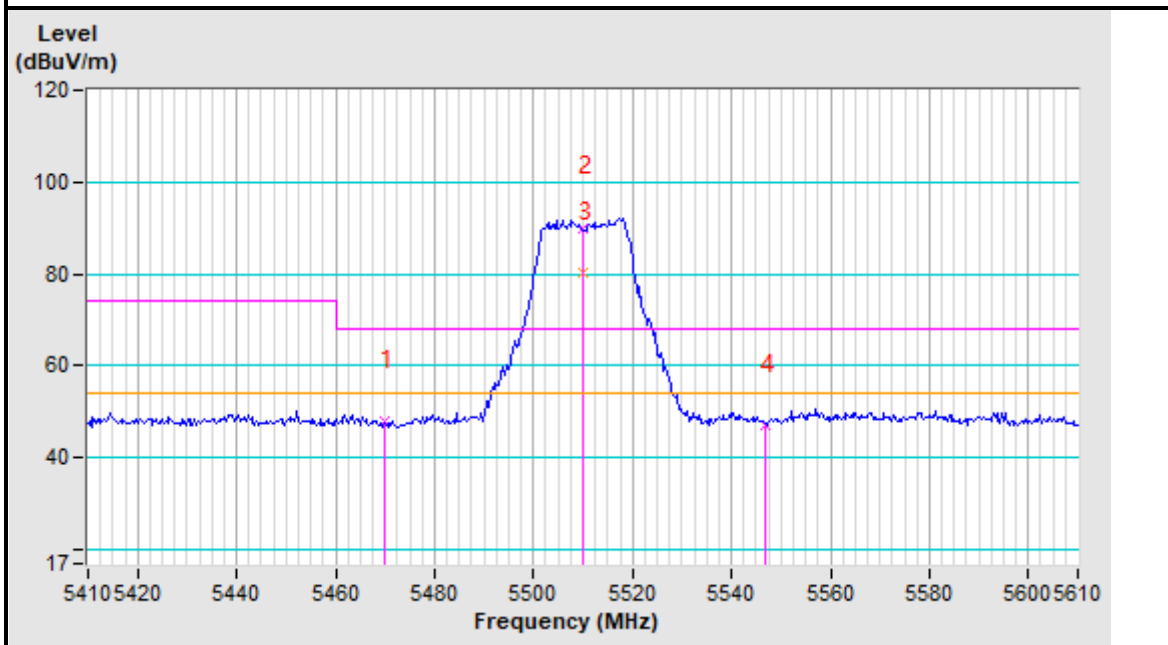


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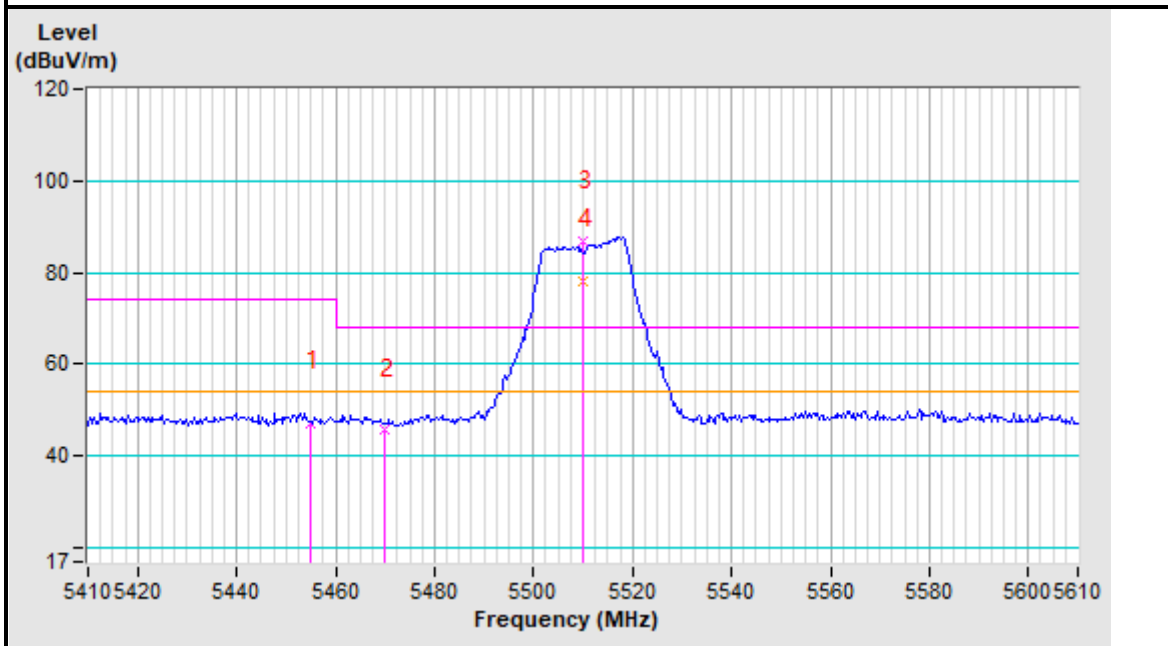
Test Report No.: RF2212WDG0234-3

Band edge Plot

5510MHz Horizontal



5510MHz Vertical





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Test Report No.: RF2212WDG0234-3

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	50.0 PK	68.2	-18.2	1.00 H	188	44.0	6.0
2	*5550.00	88.1 PK			1.00 H	188	82.0	6.1
3	*5550.00	80.2 AV			1.00 H	188	74.2	6.1
4	11100.00	51.6 PK	74.0	-22.4	1.00 H	229	40.7	10.9
5	11100.00	40.3 AV	54.0	-13.7	1.00 H	229	29.4	10.9
6	#16650.00	57.0 PK	68.2	-11.2	1.20 H	82	35.6	21.4

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.4 PK	68.2	-15.8	1.00 V	250	46.4	6.0
2	*5550.00	86.1 PK			1.00 V	250	80.0	6.1
3	*5550.00	78.0 AV			1.00 V	250	72.0	6.1
4	11100.00	51.6 PK	74.0	-22.4	1.79 V	229	40.7	10.9
5	11100.00	42.3 AV	54.0	-11.7	1.79 V	229	31.4	10.9
6	#16650.00	57.9 PK	68.2	-10.3	1.20 V	307	36.5	21.4

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.



BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.0 PK			1.00 H	278	91.6	6.5
2	*5670.00	88.8 AV			1.00 H	278	82.3	6.5
3	#5725.00	48.3 PK	68.2	-19.9	1.00 H	278	41.7	6.7
4	#5732.05	48.7 PK	68.2	-19.5	1.00 H	278	42.0	6.7
5	11340.00	52.5 PK	74.0	-21.5	1.00 H	219	40.3	12.2
6	11340.00	41.7 AV	54.0	-12.3	1.00 H	219	29.5	12.2
7	#17010.00	59.0 PK	68.2	-9.2	1.25 H	20	36.4	22.6

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	91.2 PK			1.00 V	212	84.8	6.5
2	*5670.00	82.4 AV			1.00 V	212	75.9	6.5
3	#5725.00	47.8 PK	68.2	-20.5	1.00 V	213	41.1	6.7
4	#5751.92	47.1 PK	68.2	-21.1	1.00 V	213	40.4	6.8
5	11340.00	52.5 PK	74.0	-21.5	1.00 V	300	40.4	12.2
6	11340.00	42.1 AV	54.0	-11.9	1.00 V	300	29.9	12.2
7	#17010.00	61.0 PK	68.2	-7.2	1.25 V	20	38.4	22.6

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

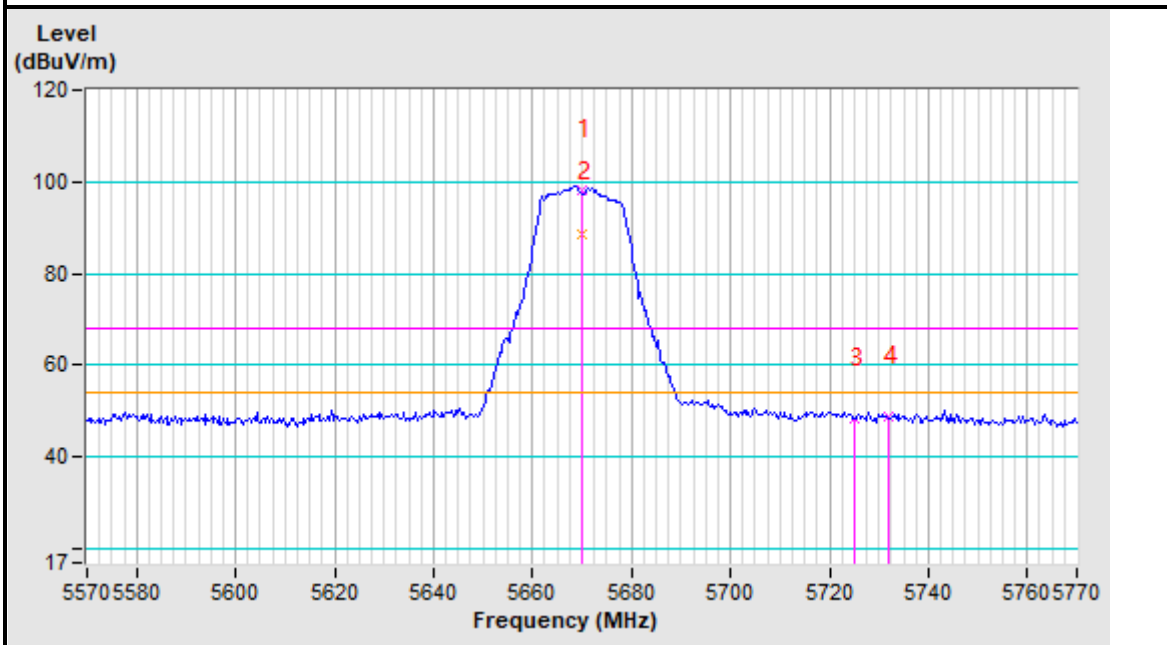


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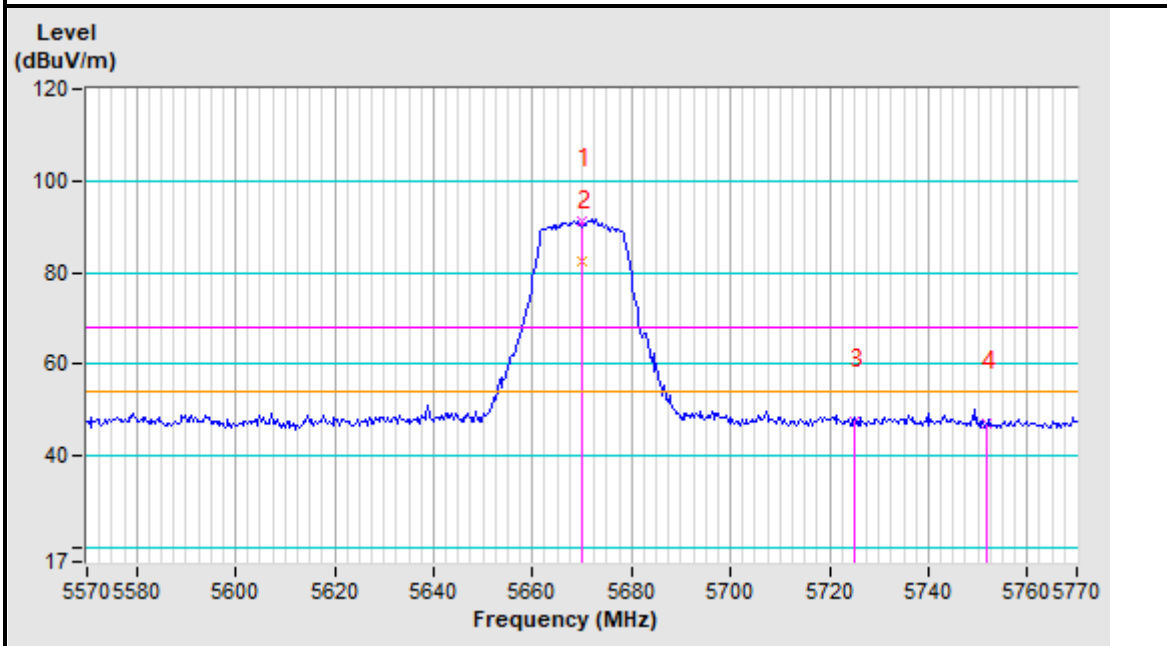
Test Report No.: RF2212WDG0234-3

Band edge Plot

5670MHz Horizontal



5670MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.1 PK	68.2	-19.1	1.00 H	300	42.4	6.7
2	*5710.00	101.8 PK			1.00 H	300	94.6	7.2
3	*5710.00	92.1 AV			1.00 H	300	84.9	7.2
4	#5850.00	48.5 PK	68.2	-19.7	1.00 H	300	40.8	7.7
5	11420.00	52.4 PK	74.0	-21.6	1.00 H	85	37.0	15.4
6	11420.00	40.4 AV	54.0	-13.6	1.00 H	85	25.0	15.4
7	#17130.00	60.2 PK	68.2	-8.0	1.00 H	320	36.7	23.5
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.1 PK	68.2	-20.1	1.00 V	90	41.4	6.7
2	*5710.00	97.2 PK			1.00 V	32	90.0	7.2
3	*5710.00	88.3 AV			1.00 V	32	81.1	7.2
4	#5850.00	48.8 PK	68.2	-19.4	1.00 V	90	41.1	7.7
5	11420.00	55.7 PK	74.0	-18.3	1.00 V	22	40.3	15.4
6	11420.00	42.0 AV	54.0	-12.0	1.00 V	22	26.6	15.4
7	#17130.00	60.3 PK	68.2	-7.9	1.00 V	228	36.9	23.5

REMARKS:

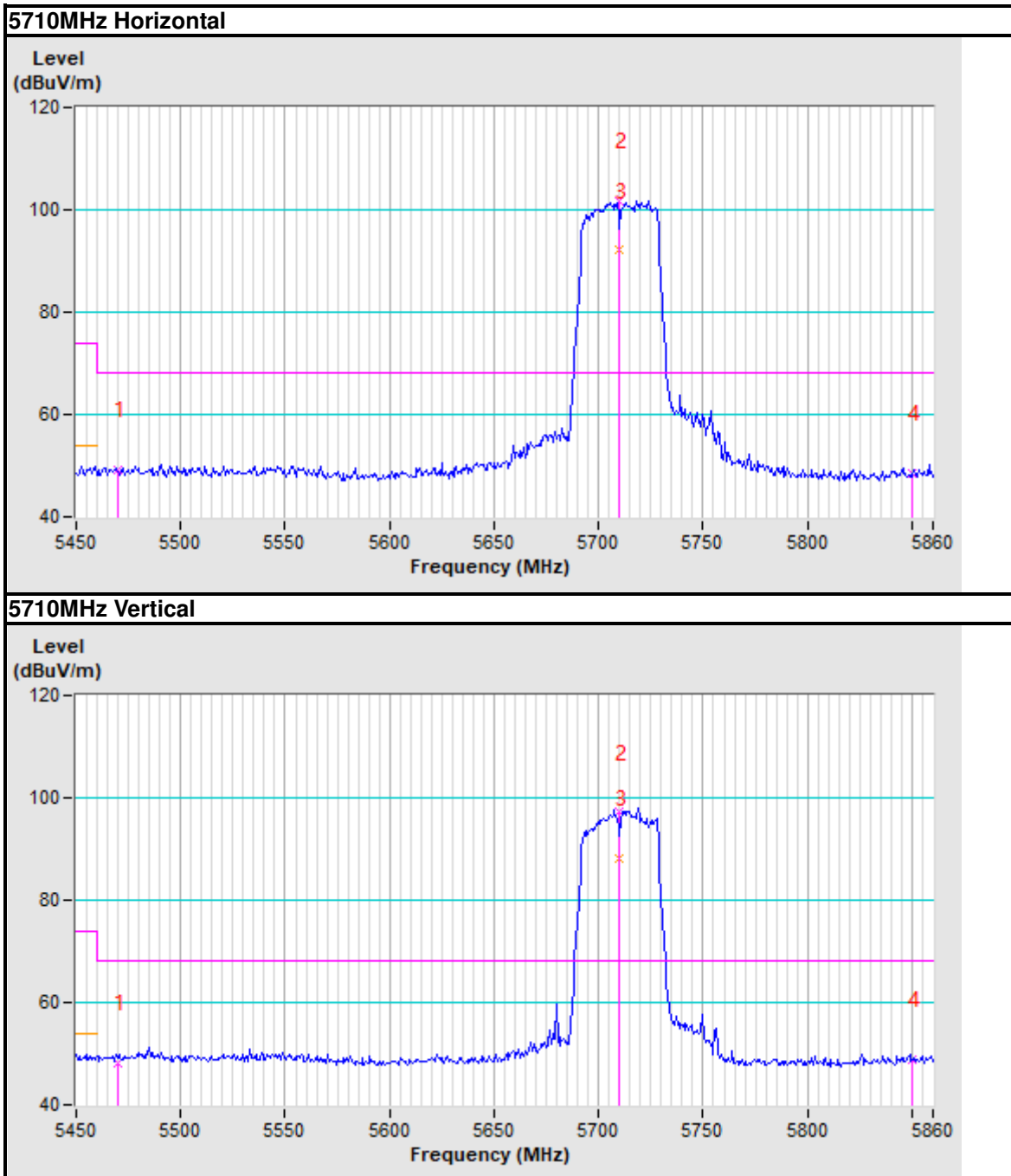
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.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



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Test Report No.: RF2212WDG0234-3

Band edge Plot





802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5463.91	48.0 PK	68.2	-20.2	1.51 H	259	41.9	6.1
2	#5470.00	47.3 PK	68.2	-20.9	1.51 H	259	41.3	6.0
3	*5530.00	94.4 PK			1.50 H	259	88.4	6.0
4	*5530.00	84.2 AV			1.50 H	259	78.3	6.0
5	11060.00	51.9 PK	74.0	-22.1	1.80 H	219	41.3	10.7
6	11060.00	42.0 AV	54.0	-12.0	1.80 H	219	31.4	10.7
7	#16590.00	57.8 PK	68.2	-10.4	1.25 H	20	36.6	21.2
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5462.95	47.9 PK	68.2	-20.3	1.00 V	255	41.9	6.1
2	#5470.00	43.8 PK	68.2	-24.4	1.00 V	255	37.7	6.0
3	*5530.00	87.3 PK			1.00 V	254	81.3	6.0
4	*5530.00	78.9 AV			1.00 V	254	72.9	6.0
5	11060.00	53.9 PK	74.0	-20.1	1.80 V	340	43.3	10.7
6	11060.00	41.6 AV	54.0	-12.4	1.80 V	340	31.0	10.7
7	#16590.00	58.0 PK	68.2	-10.2	1.25 V	20	36.8	21.2

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

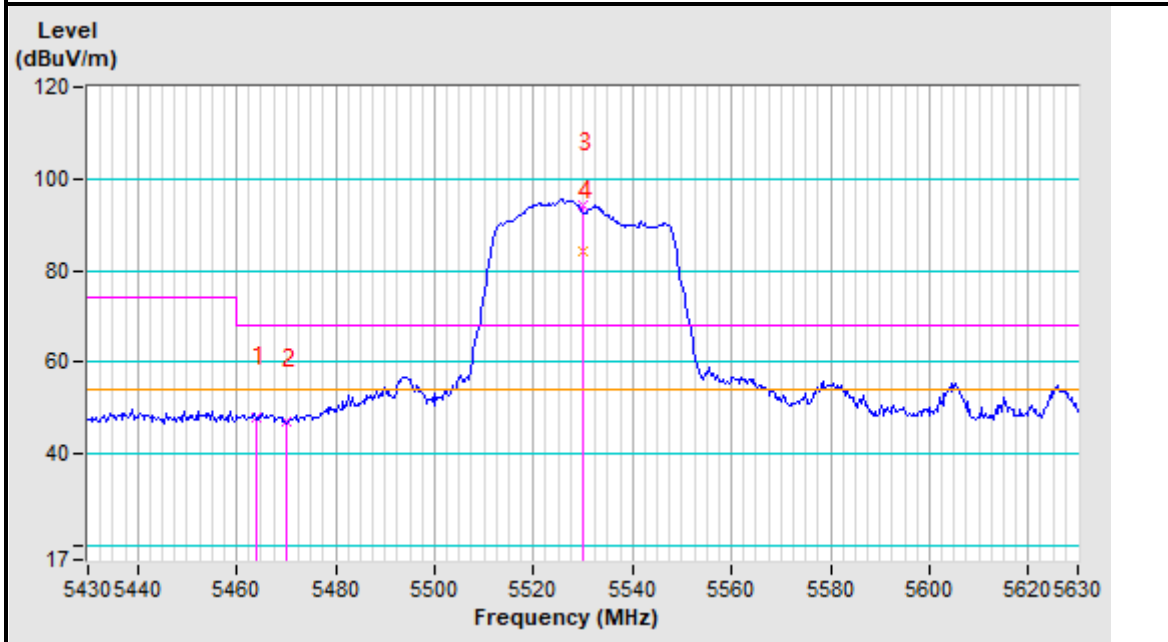


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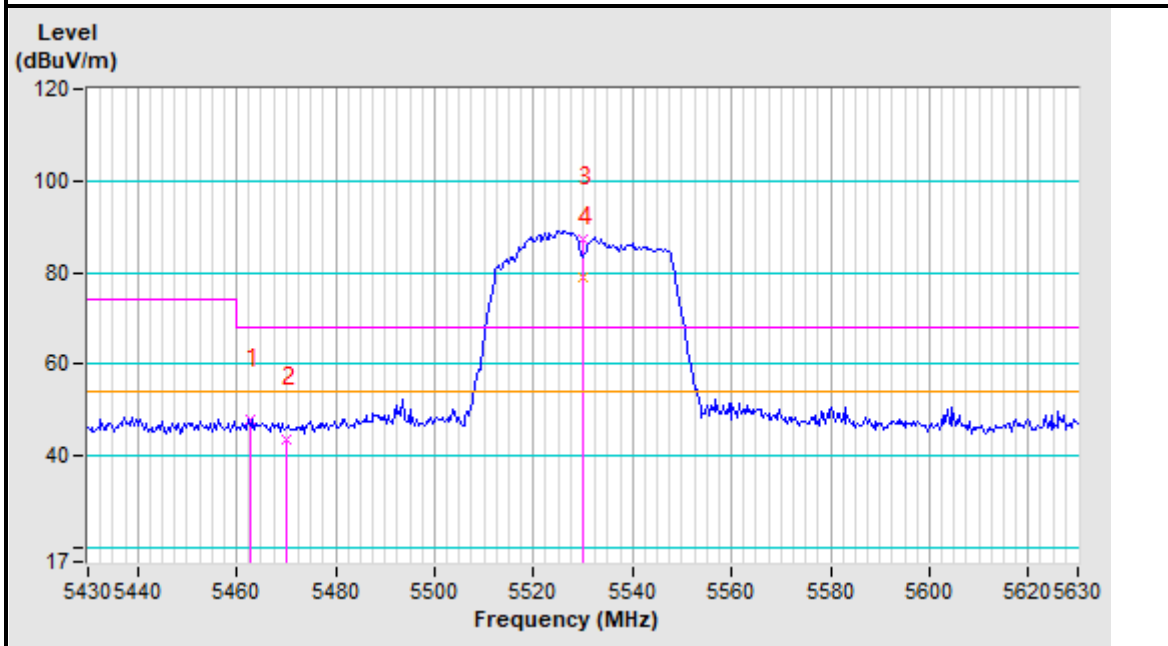
Test Report No.: RF2212WDG0234-3

Band edge Plot

5530MHz Horizontal



5530MHz Vertical





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Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	93.1 PK			1.00 H	284	86.8	6.3
2	*5610.00	84.1 AV			1.00 H	284	77.8	6.3
3	#5660.58	59.3 PK	68.2	-8.9	1.00 H	285	52.8	6.5
4	#5725.00	48.1 PK	68.2	-20.1	1.00 H	285	41.4	6.7
5	11220.00	53.2 PK	74.0	-20.8	1.00 H	210	41.7	11.5
6	11220.00	42.1 AV	54.0	-11.9	1.00 H	210	30.6	11.5
7	#16830.00	59.2 PK	68.2	-9.0	1.50 H	219	37.2	22.0

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	87.0 PK			1.50 V	218	80.7	6.3
2	*5610.00	77.7 AV			1.50 V	218	71.4	6.3
3	#5659.94	53.2 PK	68.2	-15.1	1.50 V	219	46.7	6.5
4	#5725.00	47.7 PK	68.2	-20.5	1.50 V	219	41.1	6.7
5	11220.00	51.2 PK	74.0	-22.8	1.00 V	70	39.7	11.5
6	11220.00	38.9 AV	54.0	-15.1	1.00 V	70	27.4	11.5
7	#16830.00	60.2 PK	68.2	-8.0	1.50 V	219	38.2	22.0

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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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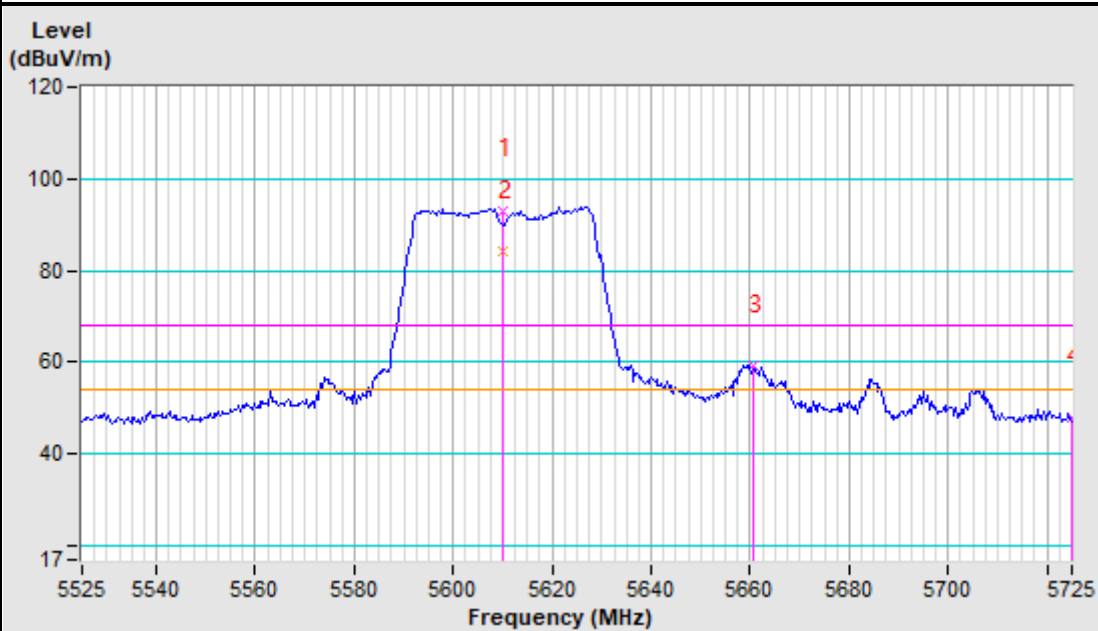


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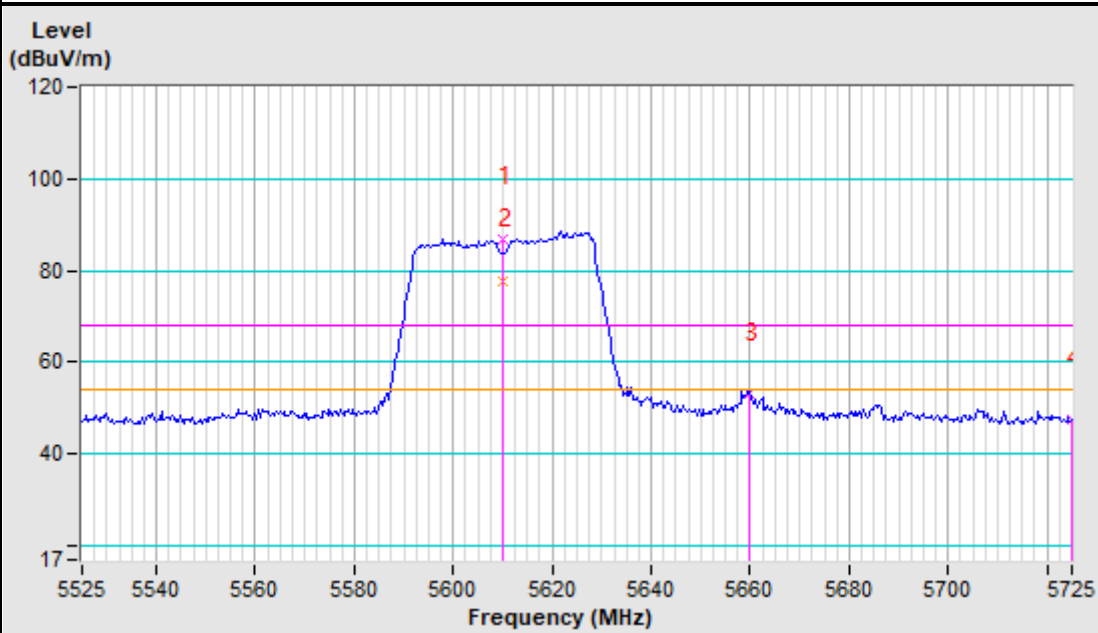
Test Report No.: RF2212WDG0234-3

Band edge Plot

5610MHz Horizontal



5610MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.3 PK	68.2	-17.9	1.00 H	341	43.6	6.7
2	*5690.00	96.0 PK			1.00 H	341	88.9	7.2
3	*5690.00	88.2 AV			1.00 H	341	81.1	7.2
4	#5850.00	48.5 PK	68.2	-19.8	1.00 H	341	40.7	7.7
5	11380.00	54.0 PK	74.0	-20.0	1.00 H	200	38.6	15.4
6	11380.00	38.1 AV	54.0	-15.9	1.00 H	200	22.7	15.4
7	#17070.00	61.2 PK	68.2	-7.0	1.00 H	300	37.7	23.5

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.3 PK	68.2	-18.9	1.00 V	70	42.6	6.7
2	*5690.00	93.7 PK			1.00 V	70	86.6	7.2
3	*5690.00	84.9 AV			1.00 V	70	77.8	7.2
4	#5850.00	49.3 PK	68.2	-18.9	1.00 V	70	41.6	7.7
5	11380.00	54.3 PK	74.0	-19.7	1.00 V	50	38.9	15.4
6	11380.00	38.6 AV	54.0	-15.4	1.00 V	50	23.2	15.4
7	#17070.00	60.9 PK	68.2	-7.3	1.00 V	10	37.4	23.5

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

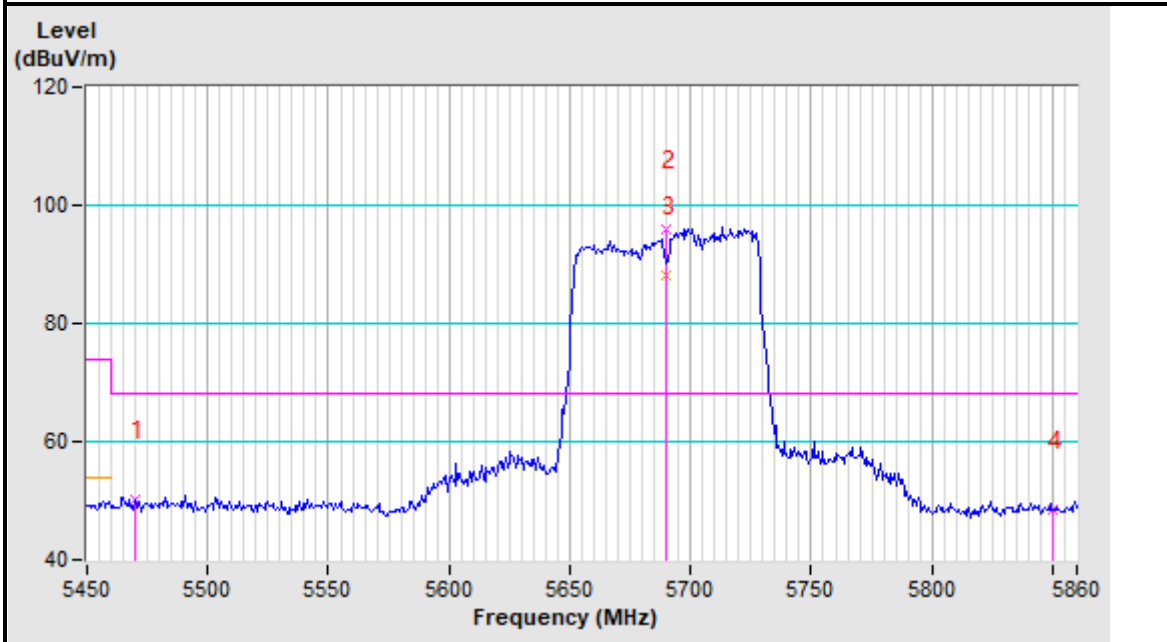


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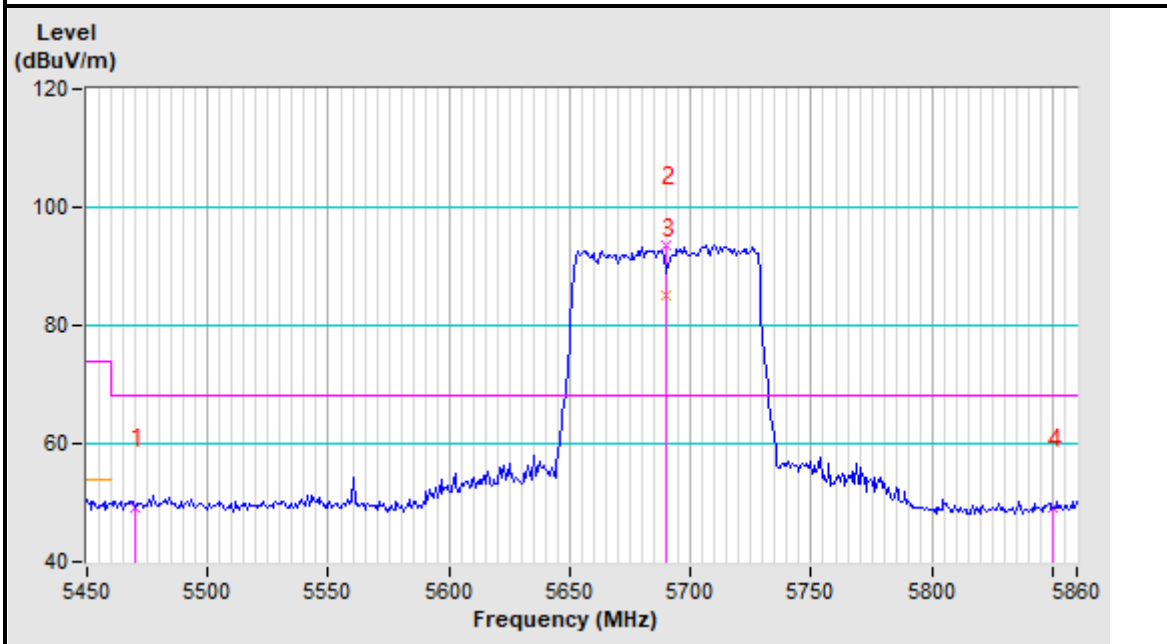
Test Report No.: RF2212WDG0234-3

Band edge Plot

5690MHz Horizontal



5690MHz Vertical





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Test Report No.: RF2212WDG0234-3

Band (U-NII-3) (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	#5716.59	48.17 PK	109.85	-61.68	1.00 H	56	41.52	6.65
2	#5725.00	47.68 PK	122.20	-74.52	1.00 H	56	41.00	6.68
3	#5855.05	48.55 PK	110.79	-62.24	1.00 H	180	41.40	7.15
4	*5745.00	98.79 PK			1.20 H	219	92.04	6.75
5	*5745.00	88.77 AV			1.20 H	219.	82.02	6.75
6	11490.00	52.37 PK	74.00	-21.63	1.52 H	112	39.42	12.95
7	11490.00	58.79 PK	74.00	-15.21	1.04 H	25	45.84	12.95
8	17235.00	61.37 PK	68.20	-6.83	1.35 H	35	38.49	22.88
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5725.00	47.52 PK	122.20	-74.68	1.00 V	180	40.84	6.68
2	5726.68	48.12 PK	152.20	-104.08	1.00 V	219	41.43	6.69
3	#5860.10	49.12 PK	109.37	-60.25	1.00 V	219.	41.96	7.16
4	*5745.00	94.48 PK			1.00 V	112	87.73	6.75
5	*5745.00	84.50 AV			1.00 V	25	77.75	6.75
6	11490.00	51.47 PK	74.00	-22.53	1.24 V	35	38.52	12.95
7	11490.00	39.55 PK	74.00	-14.45	1.24 V	56	26.60	12.95
8	17235.00	60.17 PK	68.20	-8.03	1.10 V	150	37.29	22.88

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.

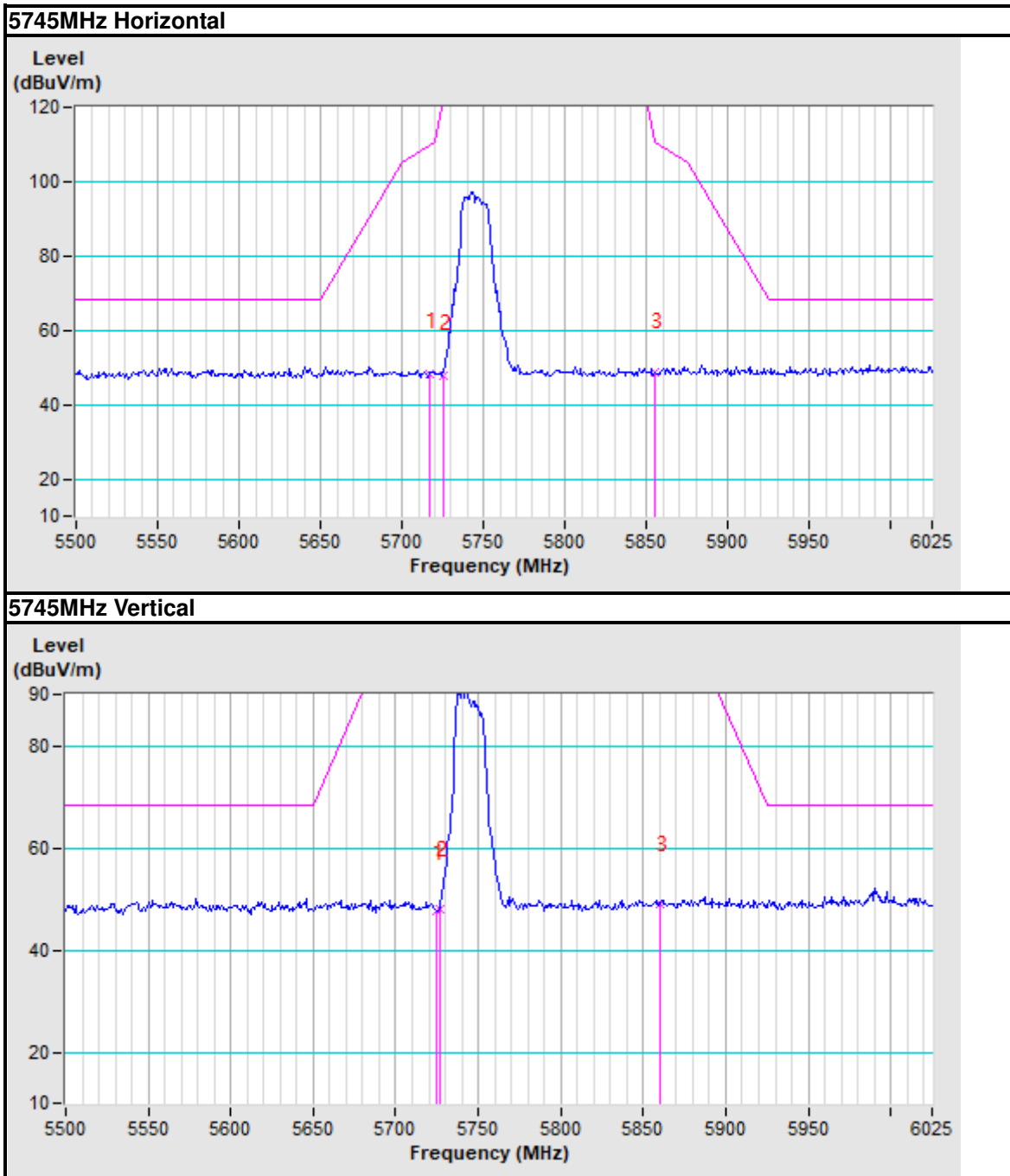
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Band edge Plot





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Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5664.42	49.2 PK	78.9	-29.7	1.00 H	0	42.7	6.5
2	#5721.63	49.1 PK	114.5	-65.4	1.00 H	0	42.4	6.7
3	*5785.00	100.7 PK			1.20 H	293	93.8	6.9
4	*5785.00	90.6 AV			1.20 H	293	83.7	6.9
5	#5865.14	49.2 PK	108.0	-58.8	1.00 H	0	42.0	7.2
6	11570.00	52.0 PK	74.0	-22.0	1.00 H	293	38.6	13.4
7	11570.00	40.3 AV	54.0	-13.7	1.00 H	293	26.9	13.4
8	#17355.00	62.3 PK	68.2	-5.9	1.00 H	20	39.3	23.1

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5677.88	48.7 PK	88.9	-40.2	1.00 V	0	42.2	6.5
2	#5715.75	47.8 PK	109.6	-61.8	1.00 V	0	41.1	6.6
3	*5785.00	94.3 PK			1.00 V	229	87.4	6.9
4	*5785.00	84.1 AV			1.00 V	229	77.2	6.9
5	#5865.14	48.6 PK	108.0	-59.3	1.00 V	0	41.4	7.2
6	11570.00	52.5 PK	74.0	-21.6	1.52 V	22	39.1	13.4
7	11570.00	41.3 AV	54.0	-12.7	1.52 V	22	27.9	13.4
8	#17355.00	62.3 PK	68.2	-5.9	1.54 V	0	39.3	23.1

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

**Bureau Veritas Shenzhen Co., Ltd.
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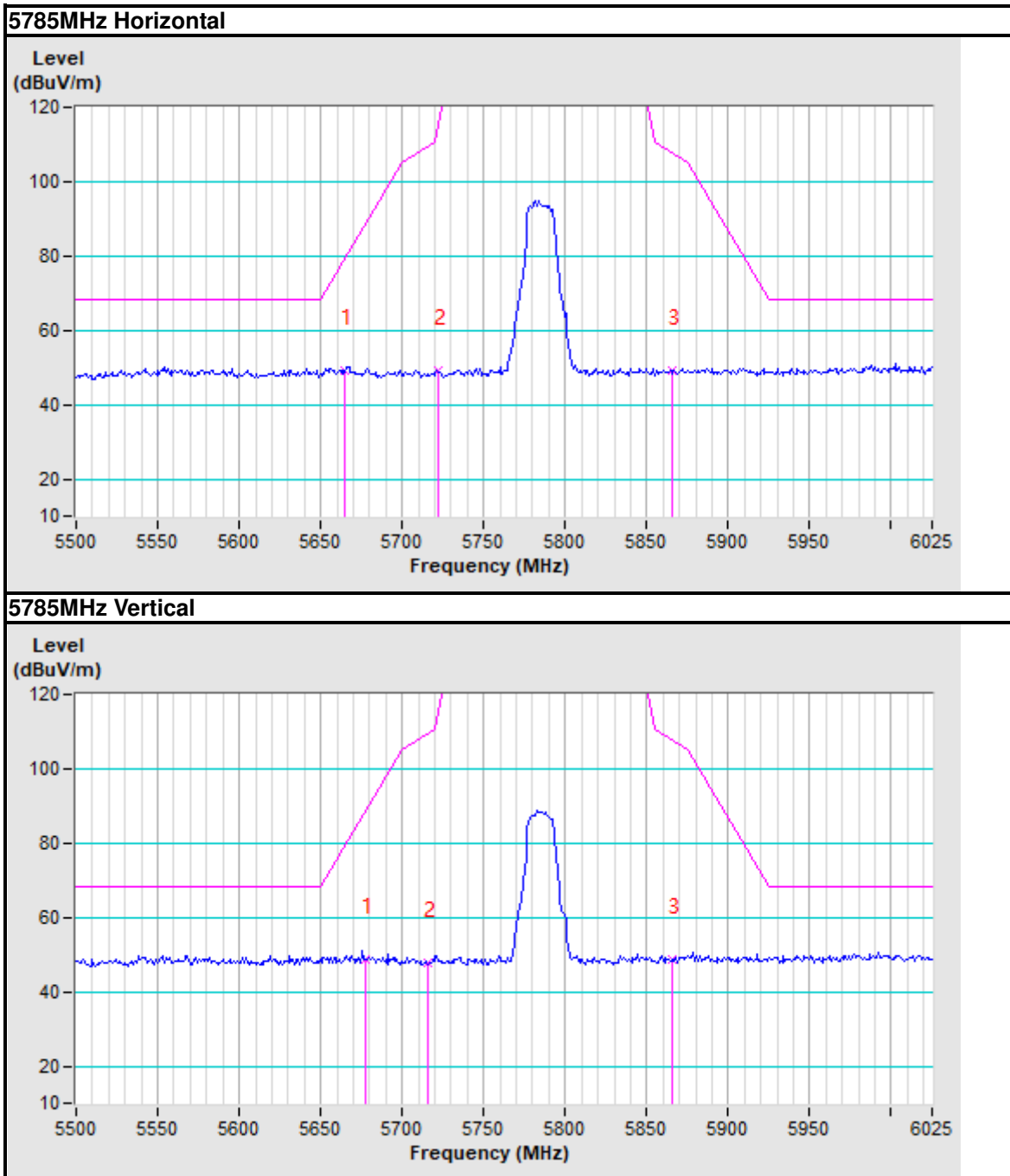
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Test Report No.: RF2212WDG0234-3

Band edge Plot





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

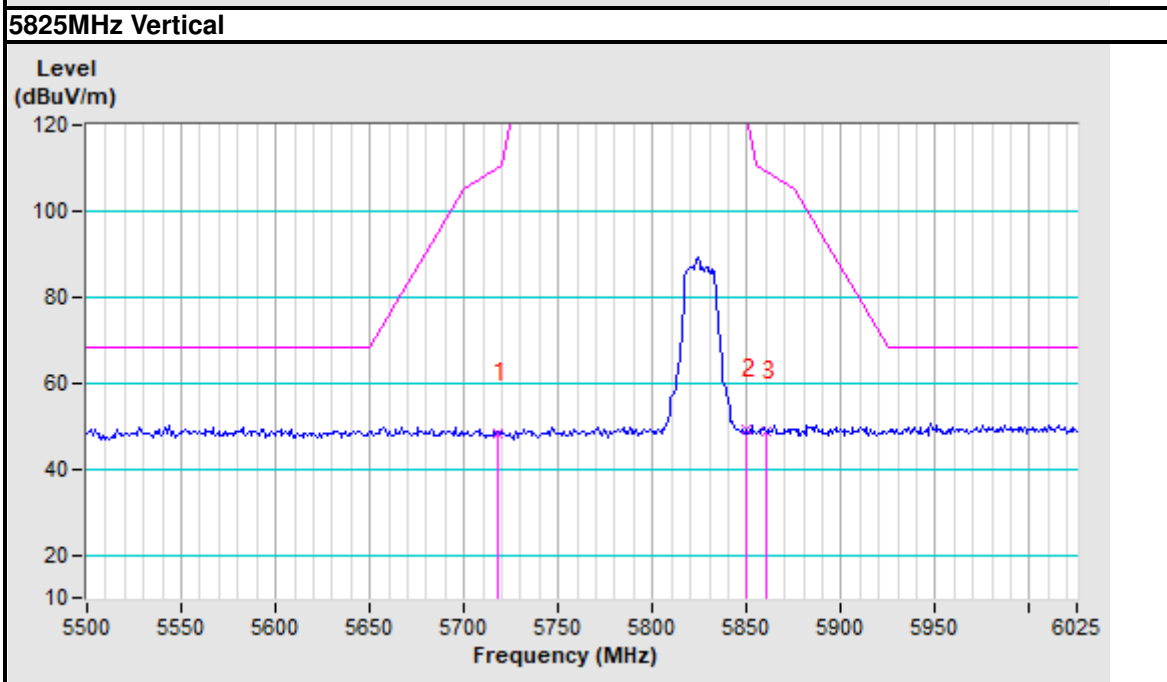
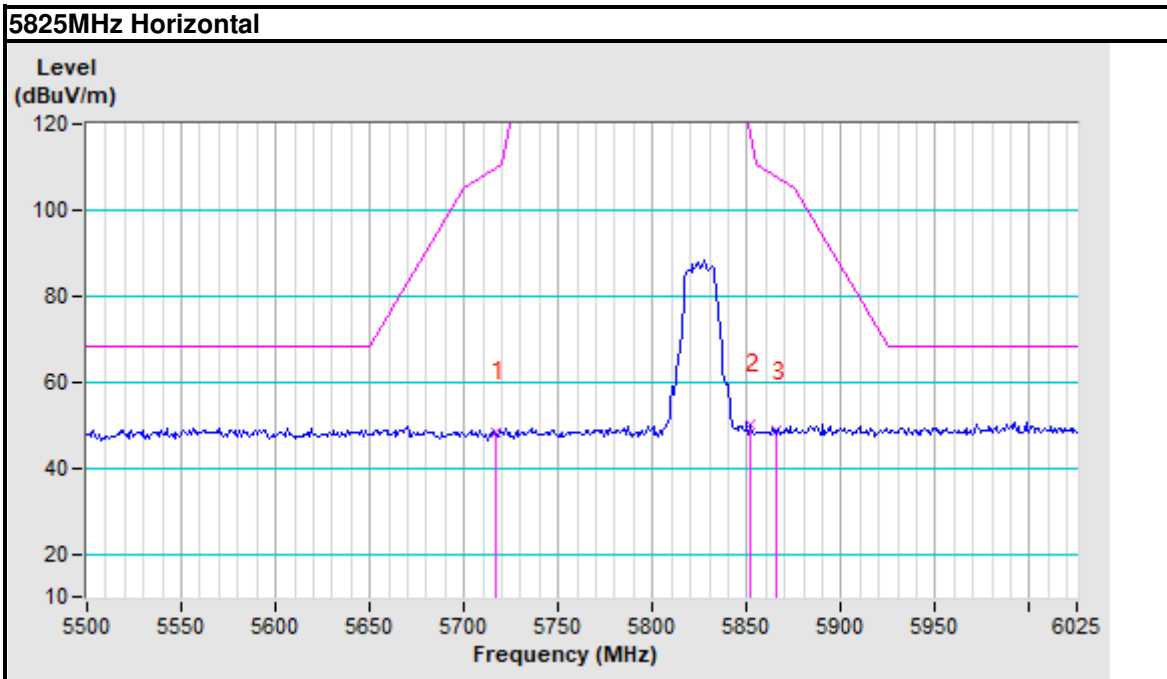
ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5716.59	48.3 PK	109.9	-61.6	1.00 H	359	41.7	6.7
2	*5825.00	100.1 PK			1.33 H	286	93.1	7.0
3	*5825.00	89.5 AV			1.33 H	286	82.5	7.0
4	#5851.68	50.2 PK	118.4	-68.2	1.00 H	221	43.1	7.1
5	#5865.99	48.5 PK	107.7	-59.2	1.00 H	314	41.3	7.2
6	11650.00	52.1 PK	74.0	-21.9	1.40 H	39	38.3	13.8
7	11650.00	38.7 AV	54.0	-15.3	1.40 H	39	24.9	13.8
8	#17475.00	60.8 PK	68.2	-7.4	1.00 H	50	37.6	23.2
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5717.43	48.2 PK	110.1	-61.8	1.00 V	0	41.6	6.7
2	*5825.00	94.4 PK			1.00 V	212	87.4	7.0
3	*5825.00	86.2 AV			1.00 V	212	79.1	7.0
4	#5850.00	49.2 PK	122.2	-73.0	1.00 V	0	42.0	7.1
5	#5860.10	48.9 PK	109.4	-60.5	1.00 V	0	41.8	7.2
6	11650.00	52.3 PK	74.0	-21.7	1.00 V	351	38.6	13.8
7	11650.00	41.3 AV	54.0	-12.7	1.00 V	351	27.5	13.8
8	#17475.00	60.1 PK	68.2	-8.1	1.00 V	170	36.9	23.2

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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





802.11n (20MHz)

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	#5703.97	48.6 PK	106.3	-57.7	1.00 H	0	42.0	6.6
2	#5725.00	49.9 PK	122.2	-72.3	1.00 H	0	43.2	6.7
3	*5745.00	99.6 PK			1.00 H	236	92.9	6.8
4	*5745.00	89.2 AV			1.00 H	236	82.4	6.8
5	#5859.25	49.8 PK	109.6	-59.8	1.00 H	0	42.7	7.2
6	11490.00	52.1 PK	74.0	-21.9	2.12 H	52	39.2	13.0
7	11490.00	43.2 AV	54.0	-10.8	2.12 H	52	30.3	13.0
8	#17235.00	60.2 PK	68.2	-8.0	1.02 H	20	37.3	22.9

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5662.74	48.0 PK	77.7	-29.7	1.00 V	0	41.5	6.5
2	#5725.00	47.9 PK	122.2	-74.3	1.00 V	0	41.2	6.7
3	*5745.00	97.6 PK			1.00 V	265	90.8	6.8
4	*5745.00	86.9 AV			1.00 V	265	80.2	6.8
5	#5868.51	48.2 PK	107.0	-58.8	1.00 V	0	41.0	7.2
6	11490.00	53.4 PK	74.0	-20.6	1.82 V	201	40.4	13.0
7	11490.00	41.4 AV	54.0	-12.6	1.82 V	201	28.4	13.0
8	#17235.00	59.2 PK	68.2	-9.0	1.00 V	57	36.4	22.9

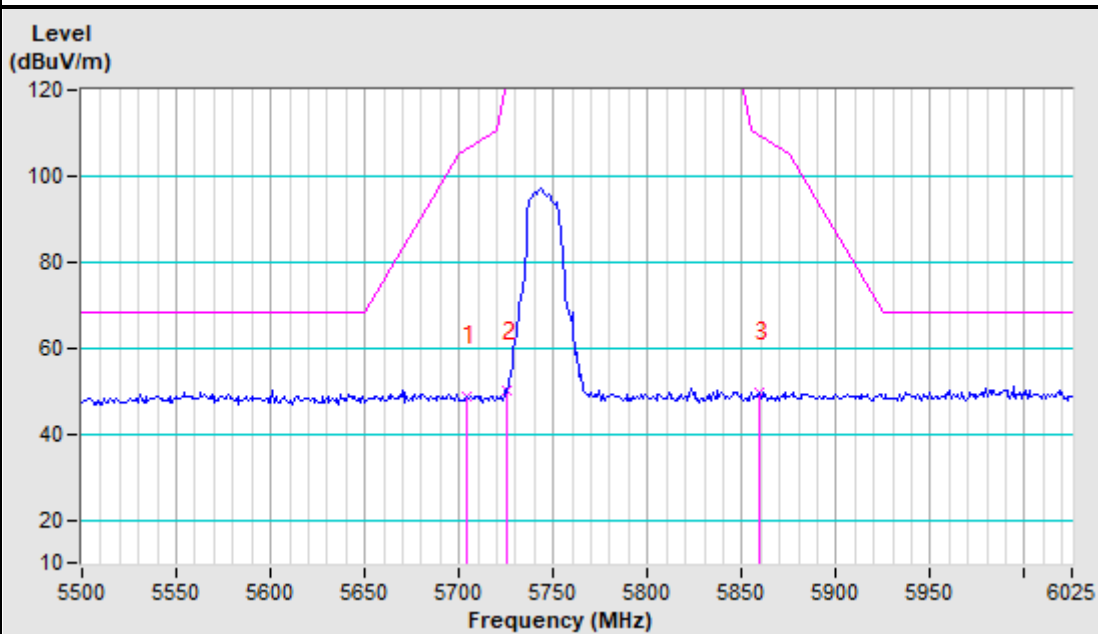
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

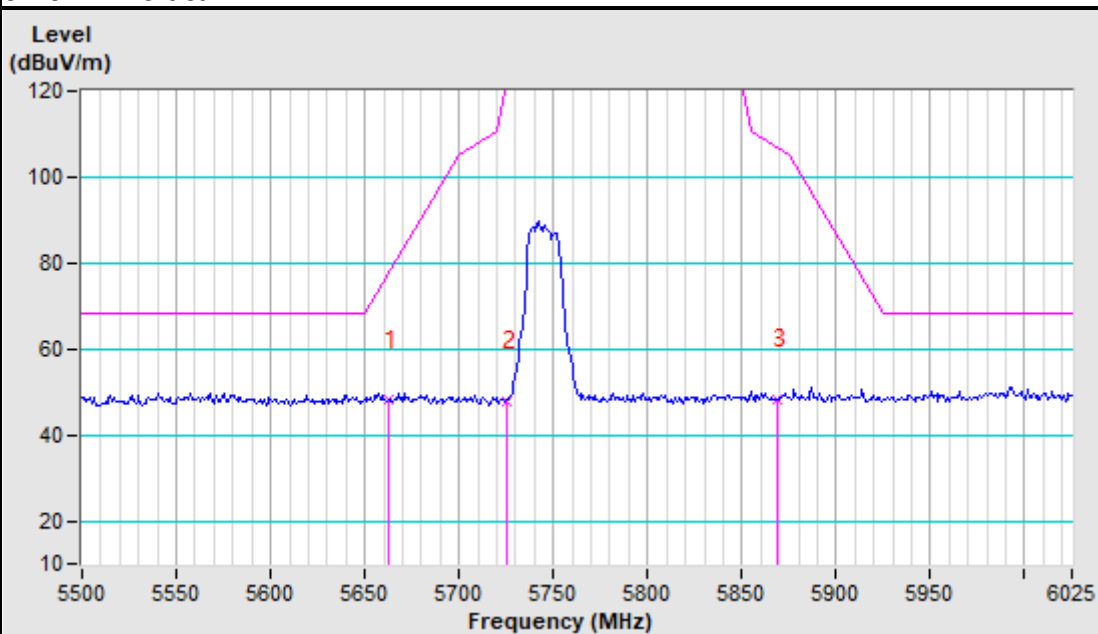


Band edge Plot

5745MHz Horizontal



5745MHz Vertical





BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5703.97	47.3 PK	106.3	-59.0	1.00 H	0	40.7	6.6
2	#5719.95	48.7 PK	110.8	-62.1	1.00 H	0	42.1	6.7
3	*5785.00	102.3 PK			1.00 H	31	95.4	6.9
4	*5785.00	99.2 AV			1.00 H	31	92.3	6.9
5	#5861.78	48.5 PK	108.9	-60.4	1.00 H	0	41.3	7.2
6	11570.00	54.2 PK	74.0	-19.8	1.04 H	220	40.8	13.4
7	11570.00	42.4 AV	54.0	-11.6	1.04 H	220	29.0	13.4
8	#17355.00	61.4 PK	68.2	-6.8	1.00 H	31	38.4	23.1

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5681.25	48.8 PK	91.4	-42.6	1.00 V	0	42.3	6.5
2	#5707.33	48.5 PK	107.3	-58.8	1.00 V	0	41.9	6.6
3	*5785.00	95.8 PK			1.00 V	266	88.9	6.9
4	*5785.00	86.6 AV			1.00 V	266	79.7	6.9
5	#5868.51	48.7 PK	107.0	-58.3	1.00 V	0	41.5	7.2
6	11570.00	50.3 PK	74.0	-23.7	1.20 V	202	36.9	13.4
7	11570.00	41.4 AV	54.0	-12.6	1.20 V	202	28.0	13.4
8	#17355.00	61.1 PK	68.2	-7.1	1.29 V	23	38.0	23.1

REMARKS:

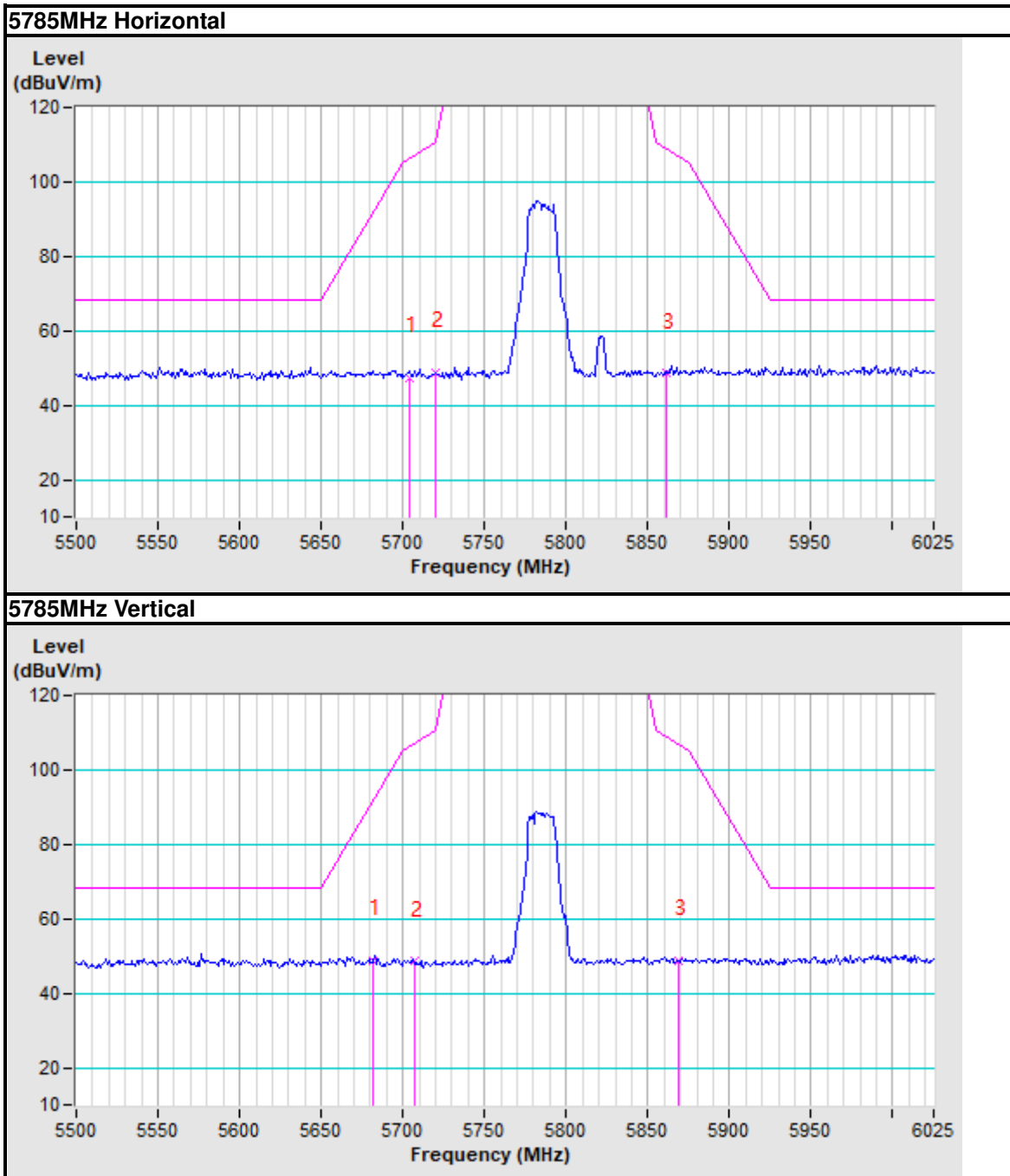
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.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



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Test Report No.: RF2212WDG0234-3

Band edge Plot





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Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5712.38	48.0 PK	108.7	-60.7	1.00 H	0	41.4	6.6
2	*5825.00	99.0 PK			1.00 H	256	91.9	7.0
3	*5825.00	89.1 AV			1.00 H	256	82.1	7.0
4	#5850.00	49.2 PK	122.2	-73.0	1.00 H	287	42.1	7.1
5	#5876.08	48.6 PK	104.4	-55.8	1.00 H	0	41.4	7.2
6	11650.00	52.4 PK	74.0	-21.7	1.20 H	51	38.6	13.8
7	11650.00	41.8 AV	54.0	-12.2	1.20 H	51	28.1	13.8
8	#17475.00	51.9 PK	68.2	-16.3	1.00 H	62	28.7	23.2

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.75	48.2 PK	109.6	-61.4	1.00 V	0	41.6	6.6
2	*5825.00	94.2 PK			1.00 V	32	87.1	7.0
3	*5825.00	84.4 AV			1.00 V	32	77.4	7.0
4	#5850.00	48.3 PK	122.2	-73.9	1.00 V	0	41.2	7.1
5	#5874.40	48.8 PK	105.4	-56.6	1.00 V	0	41.6	7.2
6	11650.00	51.7 PK	74.0	-22.3	1.47 V	360	37.9	13.8
7	11650.00	41.4 AV	54.0	-12.6	1.47 V	360	27.6	13.8
8	#17475.00	62.5 PK	68.2	-5.7	1.55 V	229	39.3	23.2

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

**Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch**

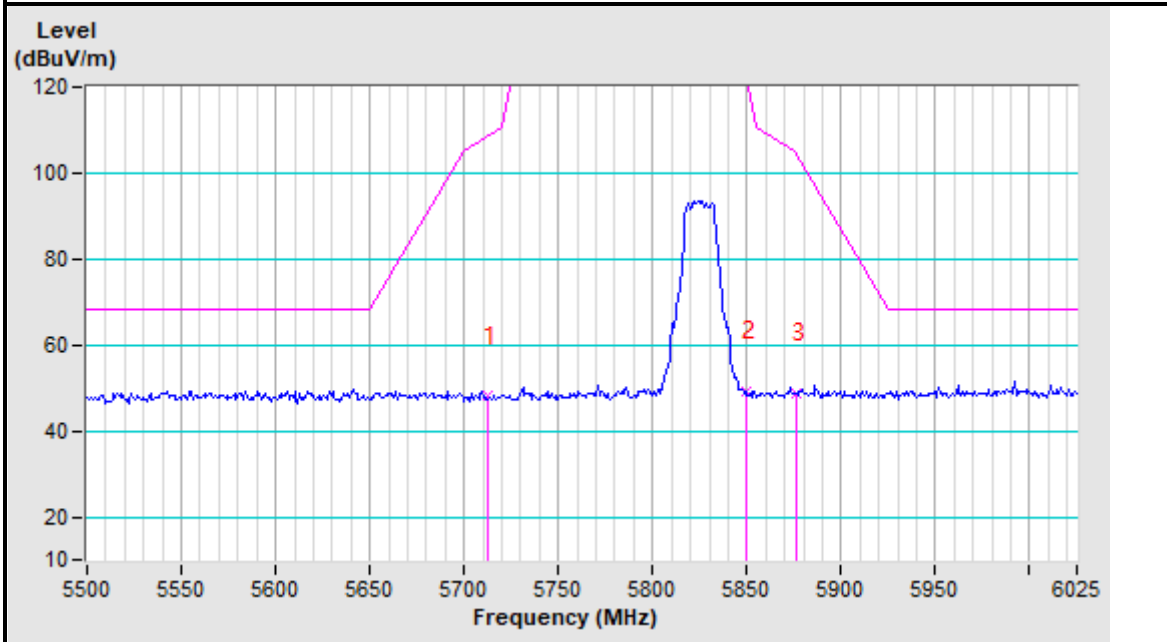
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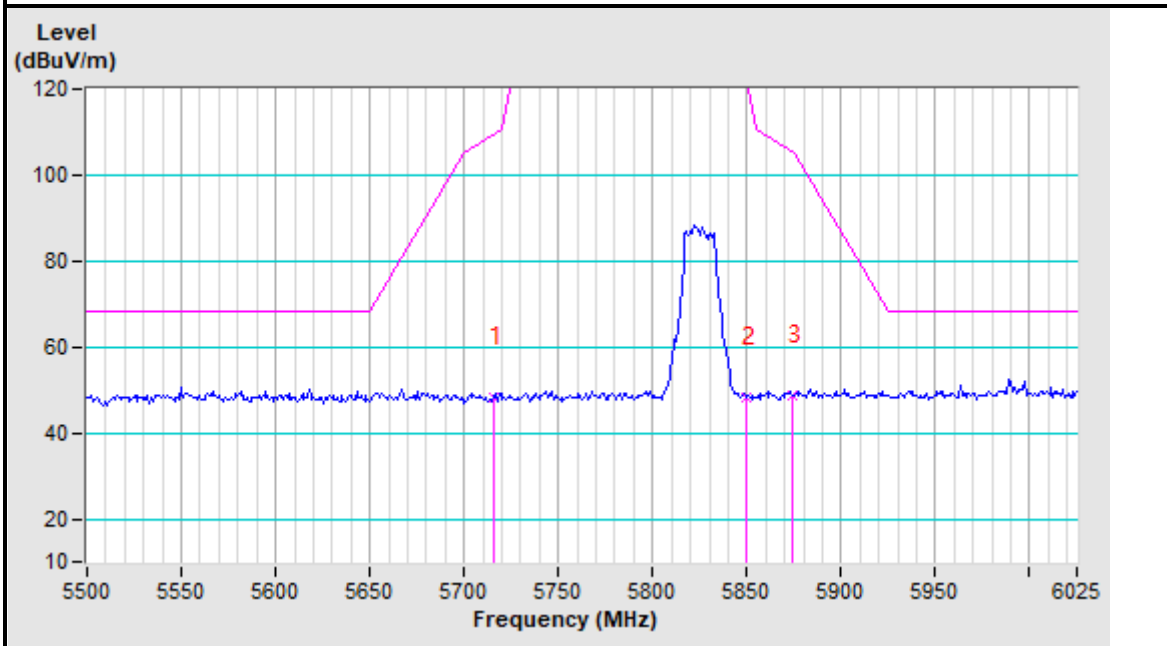


Band edge Plot

5825MHz Horizontal



5825MHz Vertical



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.79	51.5 PK	112.6	-61.1	1.00 H	0	44.8	6.7
2	*5755.00	96.7 PK			1.00 H	32	89.9	6.8
3	*5755.00	86.0 AV			1.00 H	32	79.2	6.8
4	#5850.00	50.3 PK	122.2	-72.0	1.00 H	0	43.1	7.1
5	#5865.14	49.2 PK	108.0	-58.7	1.00 H	0	42.0	7.2
6	11510.00	51.8 PK	74.0	-22.2	1.14 H	220	38.7	13.1
7	11510.00	40.5 AV	54.0	-13.5	1.14 H	220	27.4	13.1
8	#17265.00	61.2 PK	68.2	-7.0	1.00 H	52	38.3	22.9
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5718.27	48.9 PK	110.3	-61.5	1.00 V	0	42.2	6.7
2	#5725.00	48.2 PK	122.2	-74.0	1.00 V	0	41.5	6.7
3	*5755.00	92.5 PK			1.00 V	209	85.7	6.8
4	*5755.00	83.2 AV			1.00 V	209	76.4	6.8
5	#5860.10	49.3 PK	109.4	-60.1	1.00 V	0	42.2	7.2
6	11510.00	51.4 PK	74.0	-22.6	1.06 V	209	38.3	13.1
7	11510.00	40.9 AV	54.0	-13.1	1.06 V	209	27.8	13.1
8	#17265.00	60.2 PK	68.2	-8.0	1.00 V	259	37.3	22.9

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

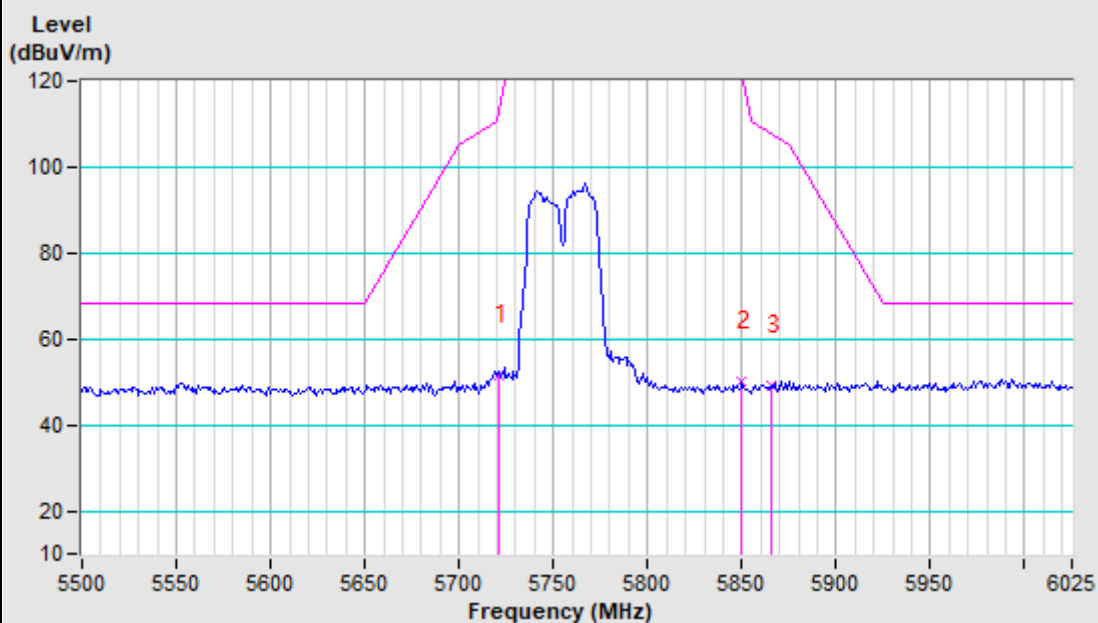


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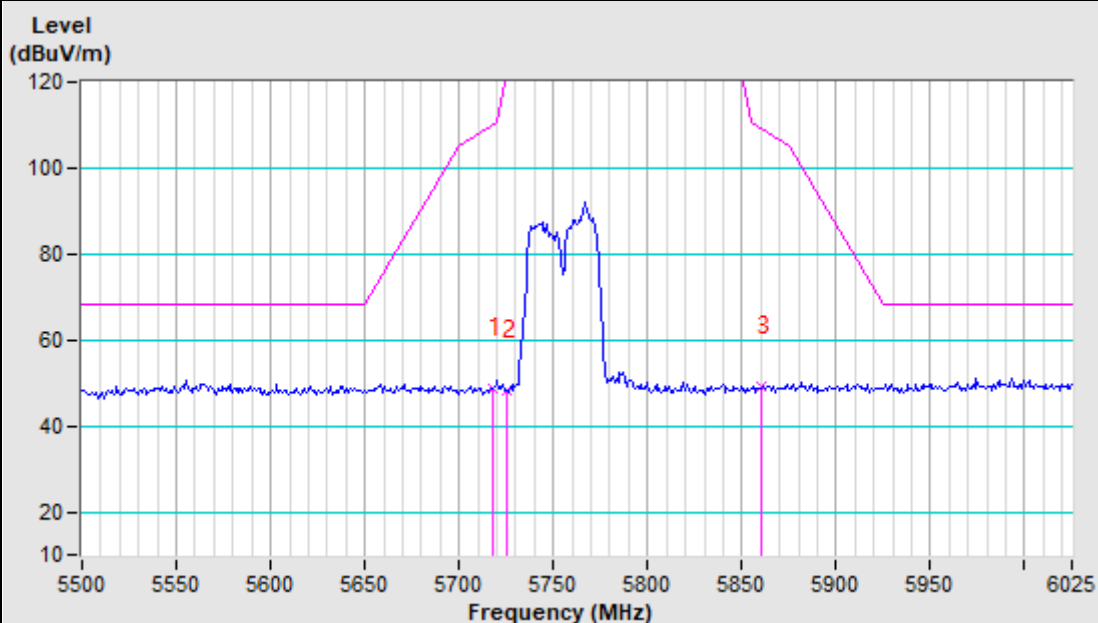
Test Report No.: RF2212WDG0234-3

Band edge Plot

5755MHz Horizontal



5755MHz Vertical





BUREAU VERITAS

Test Report No.: RF2212WDG0234-3

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	47.3 PK	109.4	-62.1	1.00 H	0	40.7	6.6
2	*5795.00	97.2 PK			1.02 H	209	90.2	6.9
3	*5795.00	86.8 AV			1.02 H	209	79.8	6.9
4	#5850.00	49.9 PK	122.2	-72.3	1.00 H	0	42.8	7.1
5	#5865.99	48.5 PK	107.7	-59.2	1.00 H	0	41.3	7.2
6	11590.00	53.5 PK	74.0	-20.5	1.00 H	226	40.1	13.5
7	11590.00	41.9 AV	54.0	-12.1	1.00 H	226	28.4	13.5
8	#17385.00	62.8 PK	68.2	-5.4	1.00 H	0	39.7	23.1

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5716.59	47.8 PK	109.9	-62.0	1.00 V	0	41.2	6.7
2	*5795.00	95.4 PK			1.00 V	219	88.4	6.9
3	*5795.00	84.2 AV			1.00 V	219	77.3	6.9
4	#5850.00	49.1 PK	122.2	-73.1	1.00 V	0	42.0	7.1
5	#5860.94	48.9 PK	109.1	-60.3	1.00 V	0	41.7	7.2
6	11590.00	52.4 PK	74.0	-21.6	1.03 V	39	38.9	13.5
7	11590.00	41.7 AV	54.0	-12.3	1.03 V	39	28.2	13.5
8	#17385.00	61.9 PK	68.2	-6.3	1.00 V	341	38.9	23.1

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

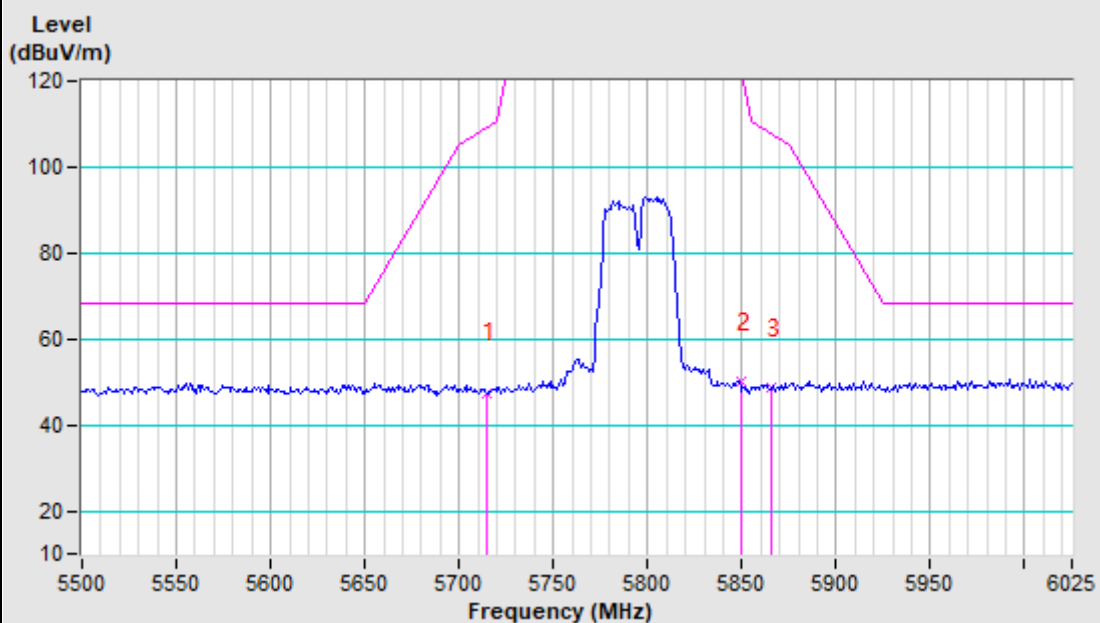


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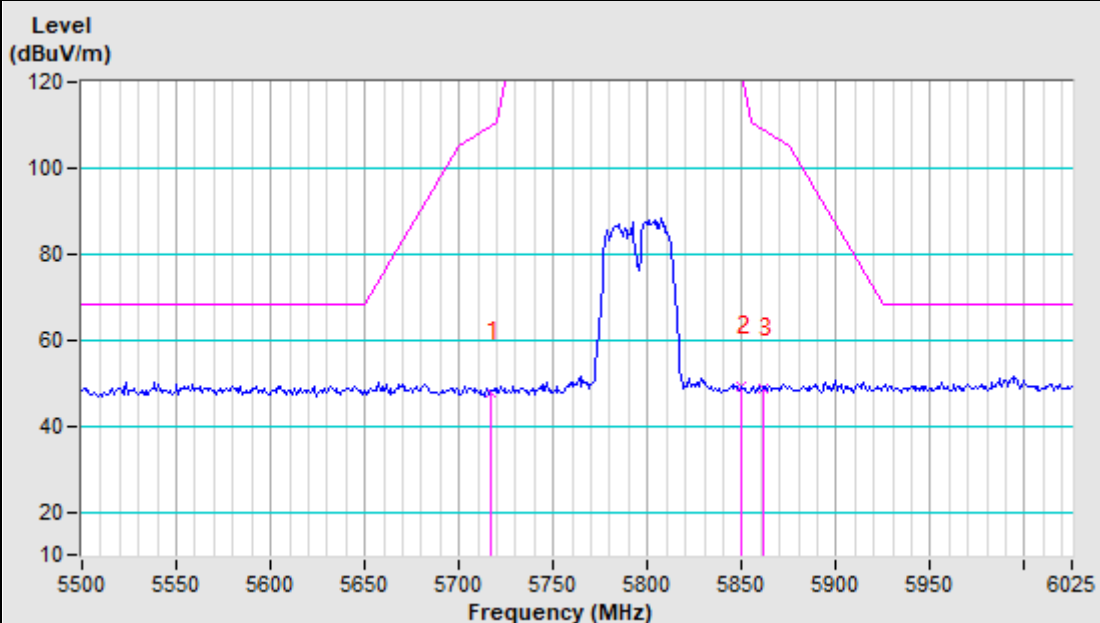
Test Report No.: RF2212WDG0234-3

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	#5720.79	50.8 PK	112.6	-61.8	1.00 H	0	44.1	6.7
2	#5725.00	51.8 PK	122.2	-70.4	1.00 H	0	45.2	6.7
3	*5775.00	99.0 PK			1.20 H	165	92.2	6.9
4	*5775.00	89.0 AV			1.20 H	165	82.2	6.9
5	#5850.00	49.0 PK	122.2	-73.2	1.00 H	0	41.8	7.1
6	11550.00	52.3 PK	74.0	-21.8	1.05 H	229	39.0	13.3
7	11550.00	40.1 AV	54.0	-13.9	1.05 H	229	26.9	13.3
8	#17325.00	59.2 PK	68.2	-9.0	1.42 H	22	36.2	23.0

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5653.49	48.2 PK	70.8	-22.6	1.00 V	0	41.8	6.4
2	#5725.00	48.4 PK	122.2	-73.8	1.00 V	0	41.7	6.7
3	*5775.00	92.2 PK			1.02 V	0	85.3	6.9
4	*5775.00	82.5 AV			1.02 V	0	75.6	6.9
5	#5850.00	48.6 PK	122.2	-73.6	1.00 V	0	41.5	7.1
6	11550.00	49.7 PK	74.0	-24.3	1.44 V	102	36.4	13.3
7	11550.00	39.0 AV	54.0	-15.0	1.44 V	102	25.7	13.3
8	#17325.00	61.9 PK	68.2	-6.3	1.00 V	351	38.9	23.0

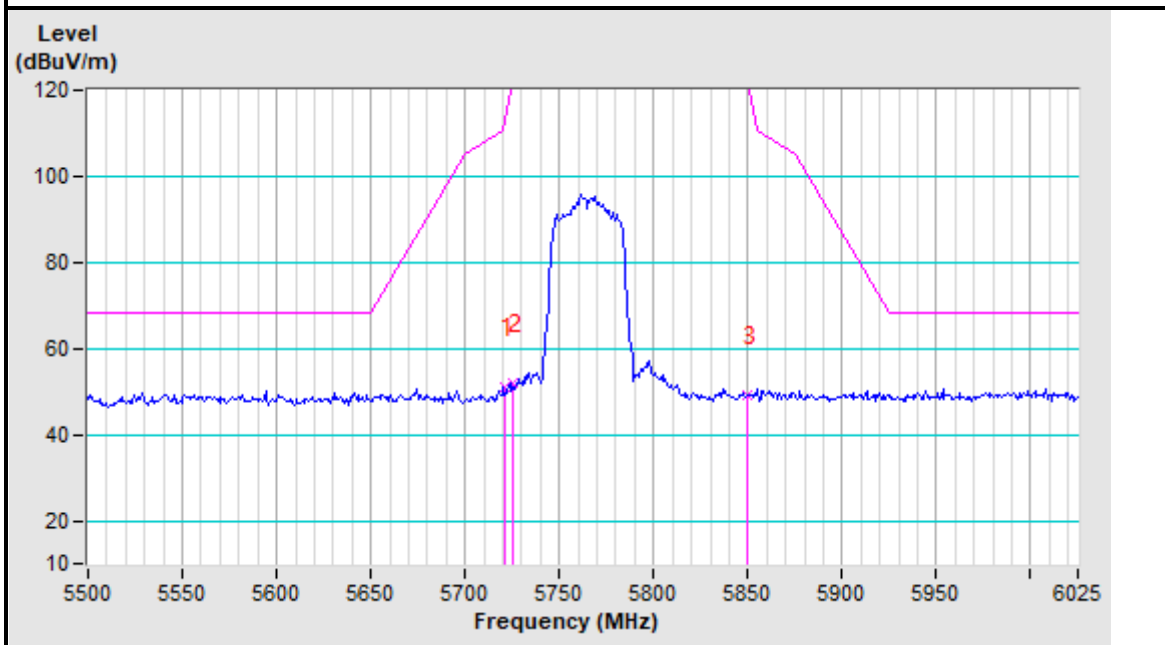
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

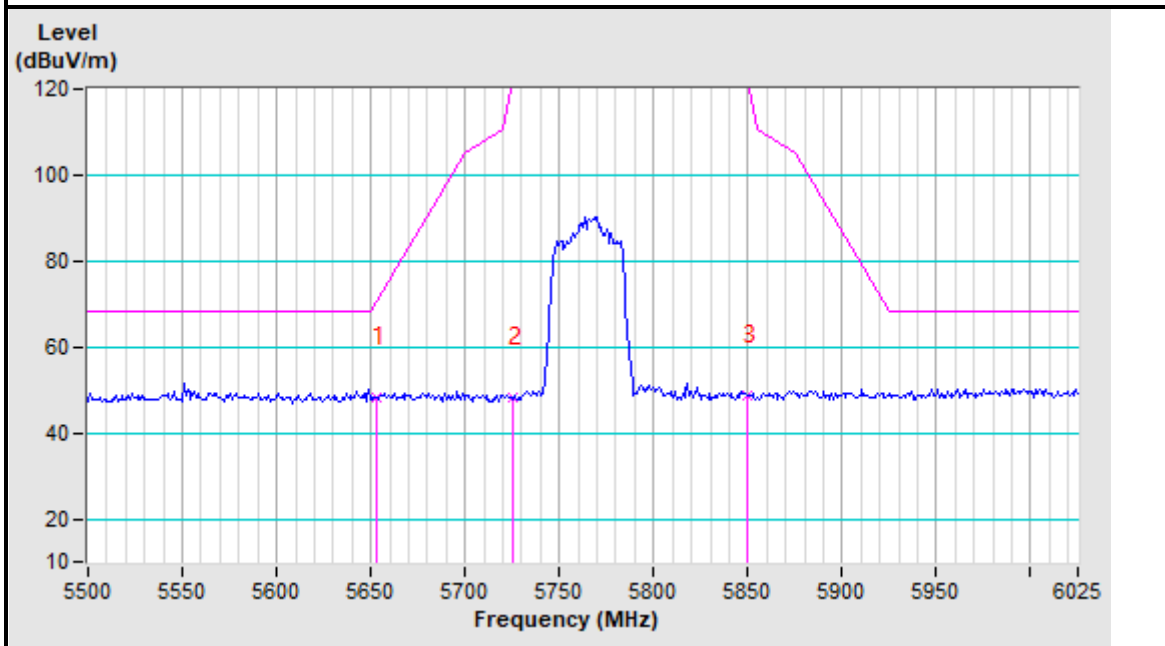


Band edge Plot

5775MHz Horizontal



5775MHz Vertical





3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

- 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	Jan. 10,24
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Jan. 11,24
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Jan. 10,24
V-LISN (CISPR 25)	SCHWARZBECK	NNBM 8124-200	8124-200 05857	Jun. 14, 23
V-LISN (CISPR 25)	SCHWARZBECK	NNBM 8124-200	8124-200 05858	Jun. 14, 23
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jul. 27, 23
Coaxial RF Cable	SUHNER	RG 223/U-CE	C2310066DG	Jul. 24, 23
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

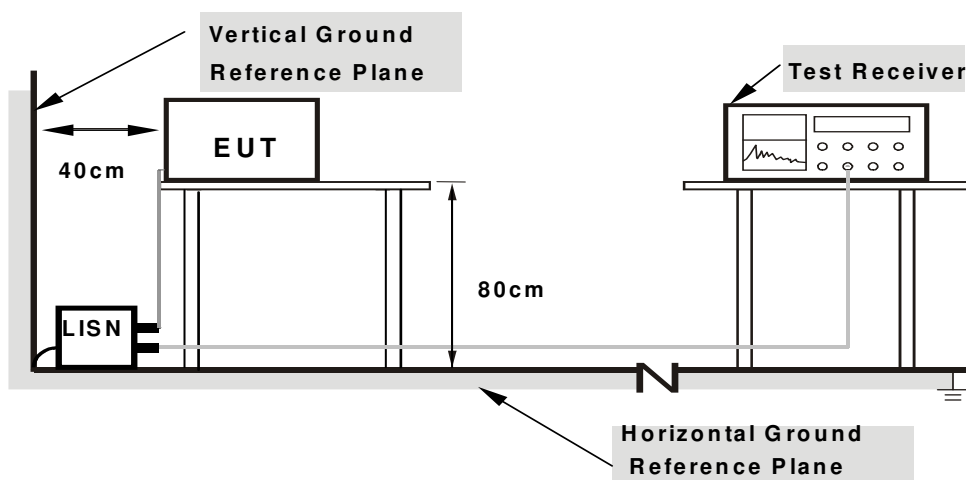
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

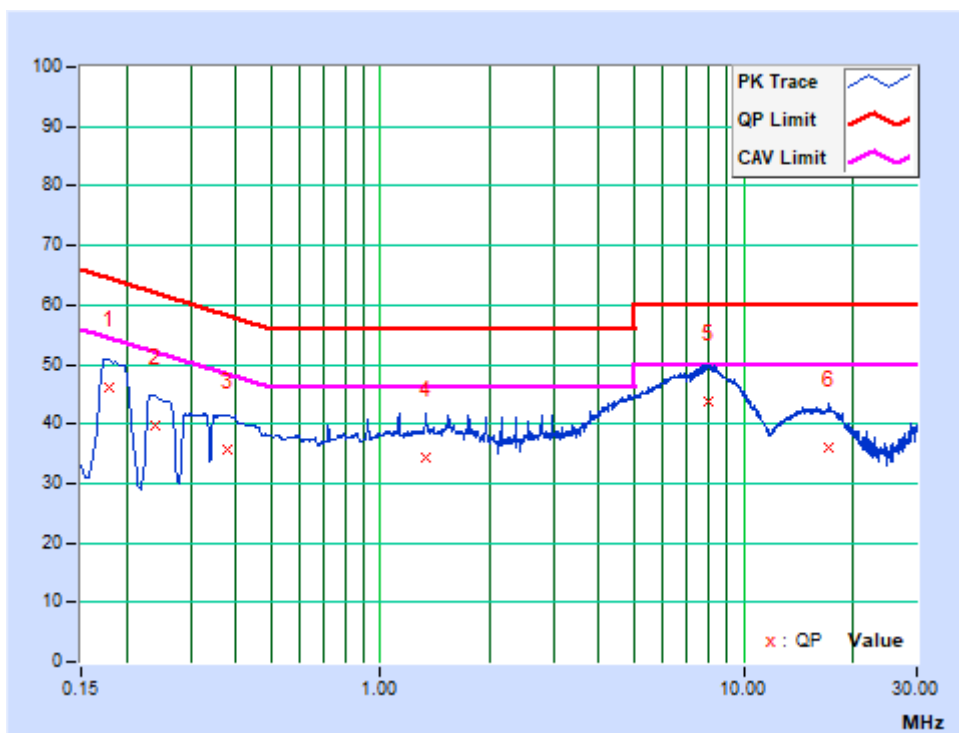
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11a CH36

PHASE	Line	6dB BANDWIDTH	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	0.17838	10.08	36.16	14.41	46.24	24.49	64.56	54.56	-18.32	-30.07
2	0.23913	10.13	29.68	7.32	39.81	17.45	62.13	52.13	-22.32	-34.68
3	0.37858	10.19	25.49	6.09	35.68	16.28	58.31	48.31	-22.63	-32.03
4	1.33040	10.25	24.24	9.06	34.49	19.31	56.00	46.00	-21.51	-26.69
5	7.99800	10.62	33.23	20.24	43.85	30.86	60.00	50.00	-16.15	-19.14
6	17.15100	10.86	25.31	16.42	36.17	27.28	60.00	50.00	-23.83	-22.72

- 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.





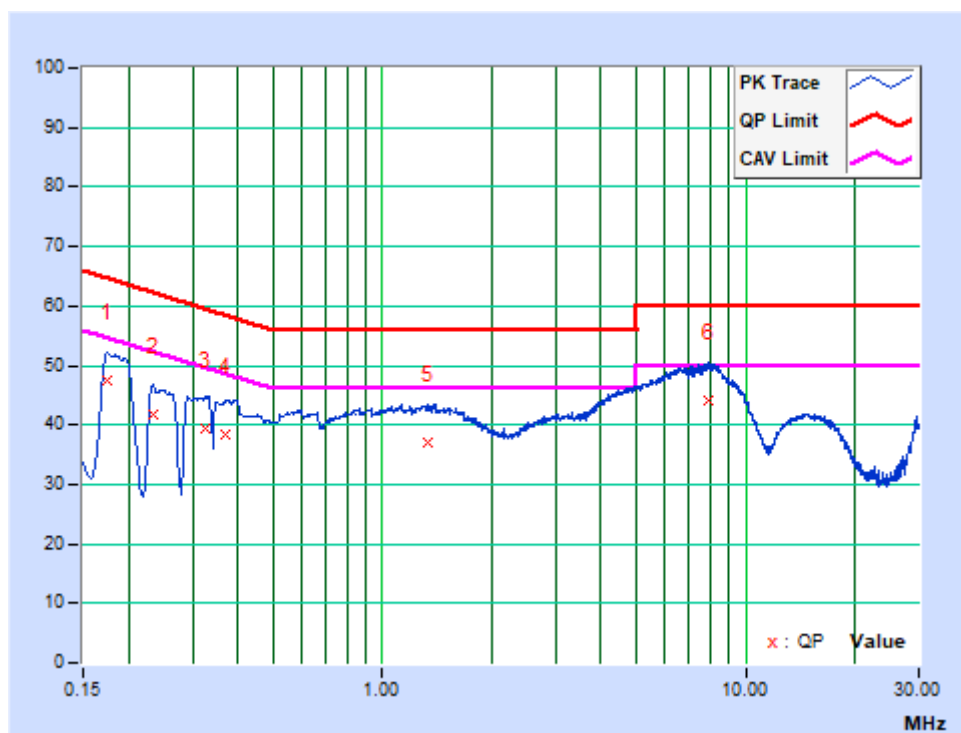
**BUREAU
VERITAS**

Test Report No.: RF2212WDG0234-3

PHASE	Neutral	6dB BANDWIDTH	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	0.17374	10.05	37.41	12.91	47.46	22.96	64.78	54.78	-17.32	-31.82
2	0.23325	10.11	31.77	6.35	41.88	16.46	62.33	52.33	-20.46	-35.88
3	0.32550	10.15	29.25	8.26	39.40	18.41	59.57	49.57	-20.17	-31.16
4	0.37050	10.16	28.37	8.17	38.53	18.33	58.49	48.49	-19.96	-30.16
5	1.33350	10.21	26.81	10.42	37.02	20.63	56.00	46.00	-18.98	-25.37
6	7.93050	10.67	33.35	19.00	44.02	29.67	60.00	50.00	-15.98	-20.33

- 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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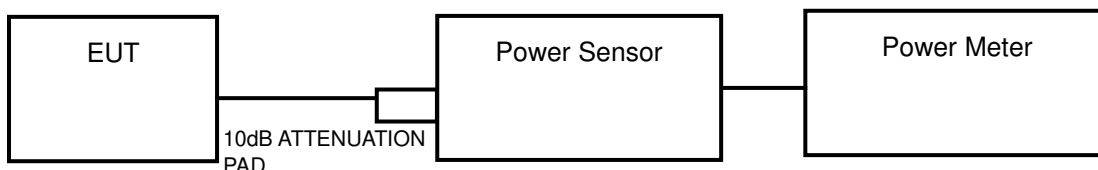
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

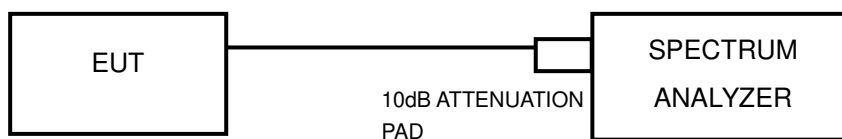
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client 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	MY57320002	Jan. 11, 24
Power Meter	Anritsu	ML2495A	1139001	Aug. 22, 23
Power Sensor	Anritsu	MA2411B	1531155	Aug. 22, 23
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Nov. 02, 23
Oscilloscope	Agilent	DSO9254A	MY51260160	Jul. 27, 23
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 11, 24
Signal Generator	Agilent	N5183A	MY50140980	Jul. 20, 23
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Jul. 20, 23
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	N/A
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	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) ≥ 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	11.47	14.028	22.70	PASS
40	5200	11.20	13.183	22.70	PASS
48	5240	11.22	13.243	22.70	PASS
52	5260	11.07	12.794	22.40	PASS
60	5300	10.98	12.531	22.40	PASS
64	5320	10.99	12.560	22.40	PASS
100	5500	11.13	12.972	23.10	PASS
116	5580	11.15	13.032	23.10	PASS
140	5700	11.27	13.397	23.10	PASS
144	5720	11.10	12.882	22.37	PASS
149	5745	10.75	11.885	29.50	PASS
157	5785	11.61	14.488	29.50	PASS
165	5825	10.83	12.106	29.50	PASS

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

1. For 5260~5320MHz, 5500~5700MHz

Limit = 11dBm+10log(26 BW)=11+10log(23.56)=24.72dBm > 24dBm

23.56MHz calculated results correspond to the worst limiting results.

2. For 5720MHz

Limit = 11dBm+10log(26 BW)=11+10log(5725-5708.12)=23.27dBm < 24dBm

Notes:

For U-NII-1

1. Antenna gain= 7.3dBi, more than 6dBi, so the power limit need to reduce 1.3dBi.

For U-NII-2A

2. Antenna gain= 7.6dBi, more than 6dBi, so the power limit need to reduce 1.6dBi.

For U-NII-2C

3. Antenna gain= 6.9dBi, more than 6dBi, so the power limit need to reduce 0.9dBi.

For U-NII-3

4. Antenna gain= 6.5dBi, more than 6dBi, so the power limit need to reduce 0.5dBi.

802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	11.35	13.646	22.70	PASS
40	5200	11.02	12.647	22.70	PASS
48	5240	11.30	13.490	22.70	PASS
52	5260	10.96	12.474	22.40	PASS
60	5300	10.87	12.218	22.40	PASS
64	5320	10.90	12.303	22.40	PASS
100	5500	10.99	12.560	23.10	PASS
116	5580	11.03	12.677	23.10	PASS
140	5700	11.14	13.002	23.10	PASS
144	5720	11.02	12.647	22.53	PASS
149	5745	10.56	11.376	29.50	PASS
157	5785	10.51	11.246	29.50	PASS
165	5825	10.72	11.803	29.50	PASS

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

1. For 5260~5320MHz, 5500~5700MHz

Limit = 11dBm+10log(26 BW)=11+10log(24.21)=24.84dBm > 24dBm

24.21MHz calculated results correspond to the worst limiting results.

2. For 5720MHz

Limit = 11dBm+10log(26 BW)=11+10log(5725-5707.48)=23.43dBm < 24dBm

Notes:

For U-NII-1

1. Antenna gain= 7.3dBi, more than 6dBi, so the power limit need to reduce 1.3dBi.

For U-NII-2A

2. Antenna gain= 7.6dBi, more than 6dBi, so the power limit need to reduce 1.6dBi.

For U-NII-2C

3. Antenna gain= 6.9dBi, more than 6dBi, so the power limit need to reduce 0.9dBi.

For U-NII-3

4. Antenna gain= 6.5dBi, more than 6dBi, so the power limit need to reduce 0.5dBi.



802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS / FAIL
38	5190	12.30	16.982	22.70	PASS
46	5230	11.56	14.322	22.70	PASS
54	5270	10.67	11.668	22.40	PASS
62	5310	11.09	12.853	22.40	PASS
102	5510	10.99	12.560	23.10	PASS
110	5550	11.06	12.764	23.10	PASS
134	5670	11.17	13.092	23.10	PASS
142	5710	11.78	15.066	23.10	PASS
151	5755	10.52	11.272	29.50	PASS
159	5795	11.12	12.942	29.50	PASS

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

1. For 5270~5310MHz, 5510~5670MHz

Limit = 11dBm+10log(26 BW)=11+10log(42.04)=27.23dBm > 24dBm

42.04MHz calculated results correspond to the worst limiting results.

2. For 5710MHz

Limit = 11dBm+10log(26 BW)=11+10log(5725-5688.76)=26.59dBm > 24dBm

Notes:

For U-NII-1

- 1. Antenna gain= 7.3dBi, more than 6dBi, so the power limit need to reduce 1.3dBi.

For U-NII-2A

- 2. Antenna gain= 7.6dBi, more than 6dBi, so the power limit need to reduce 1.6dBi.

For U-NII-2C

- 3. Antenna gain= 6.9dBi, more than 6dBi, so the power limit need to reduce 0.9dBi.

For U-NII-3

- 4. Antenna gain= 6.5dBi, more than 6dBi, so the power limit need to reduce 0.5dBi.



802.11ac (80MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
42	5210	11.56	14.322	22.70	PASS
58	5290	10.98	12.531	22.40	PASS
106	5530	11.45	13.964	23.10	PASS
122	5610	11.47	14.028	23.10	PASS
138	5690	11.44	13.932	23.10	PASS
155	5775	10.59	11.455	29.50	PASS

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

1. For 5290MHz, 5530~5610MHz

Limit = 11dBm+10log(26 BW)=11+10log(82.95)=30.18dBm > 24dBm

82.95MHz calculated results correspond to the worst limiting results.

2. For 5690MHz

Limit = 11dBm+10log(26 BW)=11+10log(5725-5648.53)=29.83dBm > 24dBm

Notes:

For U-NII-1

1. Antenna gain= 7.3dBi, more than 6dBi, so the power limit need to reduce 1.3dBi.

For U-NII-2A

2. Antenna gain= 7.6dBi, more than 6dBi, so the power limit need to reduce 1.6dBi.

For U-NII-2C

3. Antenna gain= 6.9dBi, more than 6dBi, so the power limit need to reduce 0.9dBi.

For U-NII-3

4. Antenna gain= 6.5dBi, more than 6dBi, so the power limit need to reduce 0.5dBi.

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	23.52	PASS
40	5200	23.30	PASS
48	5240	23.70	PASS
52	5260	23.58	PASS
60	5300	23.75	PASS
64	5320	23.69	PASS
100	5500	23.61	PASS
116	5580	23.56	PASS
140	5700	24.28	PASS
144 (For U-NII-2C)	5720	16.88	PASS

For CH144 (U-NII-2C Band), the -26dB bandwidth below 5725MHz= 5725MHz – 5708.12MHz.

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	25.06	PASS
40	5200	24.70	PASS
48	5240	23.82	PASS
52	5260	24.95	PASS
60	5300	24.79	PASS
64	5320	25.32	PASS
100	5500	25.28	PASS
116	5580	24.71	PASS
140	5700	24.21	PASS
144 (For U-NII-2C)	5720	17.52	PASS

For CH144 (U-NII-2C Band), the -26dB bandwidth below 5725MHz= 5725MHz – 5707.48MHz.



802.11n (40MHz)

Channel Number	Freq. (MHz)	26Db DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	42.36	PASS
46	5230	42.36	PASS
54	5270	42.49	PASS
62	5310	42.17	PASS
102	5510	42.04	PASS
110	5550	42.19	PASS
134	5670	42.26	PASS
142 (For U-NII-2C)	5710	36.24	PASS

For CH142 (U-NII-2C Band), the -26dB bandwidth below 5725MHz= 5725MHz – 5688.76MHz.

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
42	5210	83.48	PASS
58	5290	83.37	PASS
106	5530	82.95	PASS
122	5610	83.76	PASS
138 (For U-NII-2C)	5690	76.47	PASS

For CH138 (U-NII-2C Band), the -26dB bandwidth below 5725MHz= 5725MHz – 5648.53MHz.



6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
144 (For U-NII-3)	5720	2.89	PASS
149	5745	15.66	PASS
157	5785	15.43	PASS
165	5825	15.53	PASS

For CH144 (U-NII-3 Band), the 6dB bandwidth above 5725MHz= Maker 1 + Delta 2 – 5725MHz

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
144 (For U-NII-3)	5720	2.58	PASS
149	5745	15.78	PASS
157	5785	16.03	PASS
165	5825	15.52	PASS

For CH144 (U-NII-3 Band), the 6dB bandwidth above 5725MHz= Maker 1 + Delta 2 – 5725MHz

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
142 (For U-NII-3)	5710	2.91	PASS
151	5755	35.85	PASS
159	5795	35.65	PASS

For CH142 (U-NII-3 Band), the 6dB bandwidth above 5725MHz= Maker 1 + Delta 2 – 5725MHz

802.11ac (80MHz)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
138 (For U-NII-3)	5690	2.78	PASS
155	5775	75.75	PASS

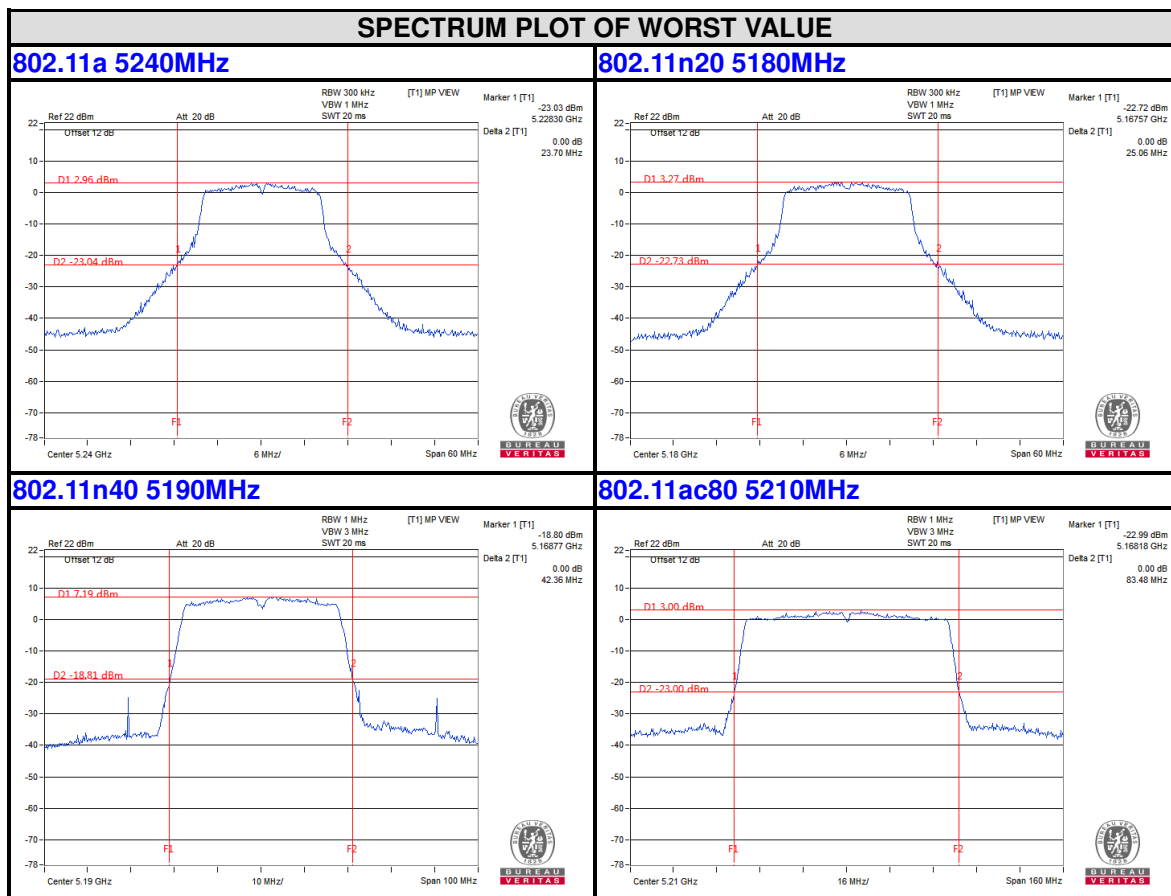
For CH138 (U-NII-3 Band), the 6dB bandwidth above 5725MHz= Maker 1 + Delta 2 – 5725MHz



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26dB bandwidth Test Plot For 5150-5250MHz



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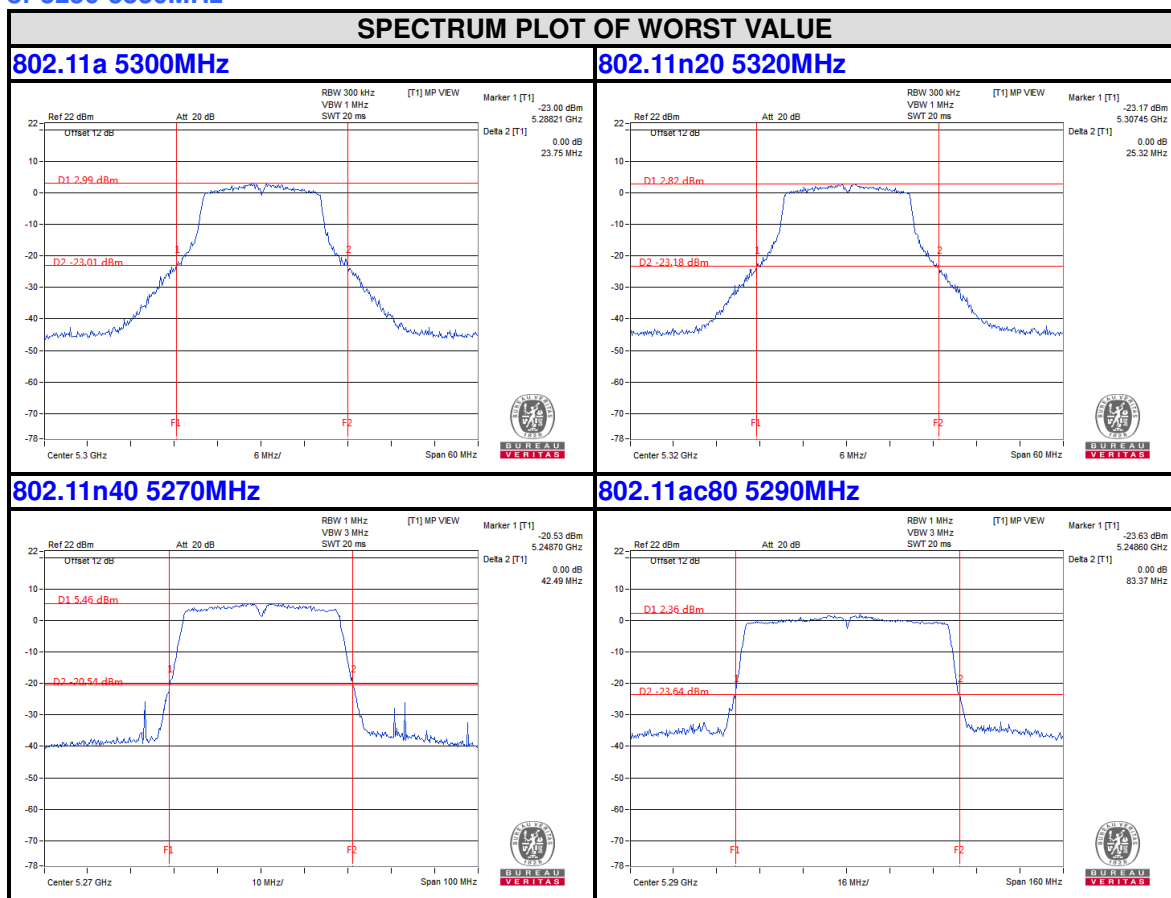
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For 5250-5350MHz



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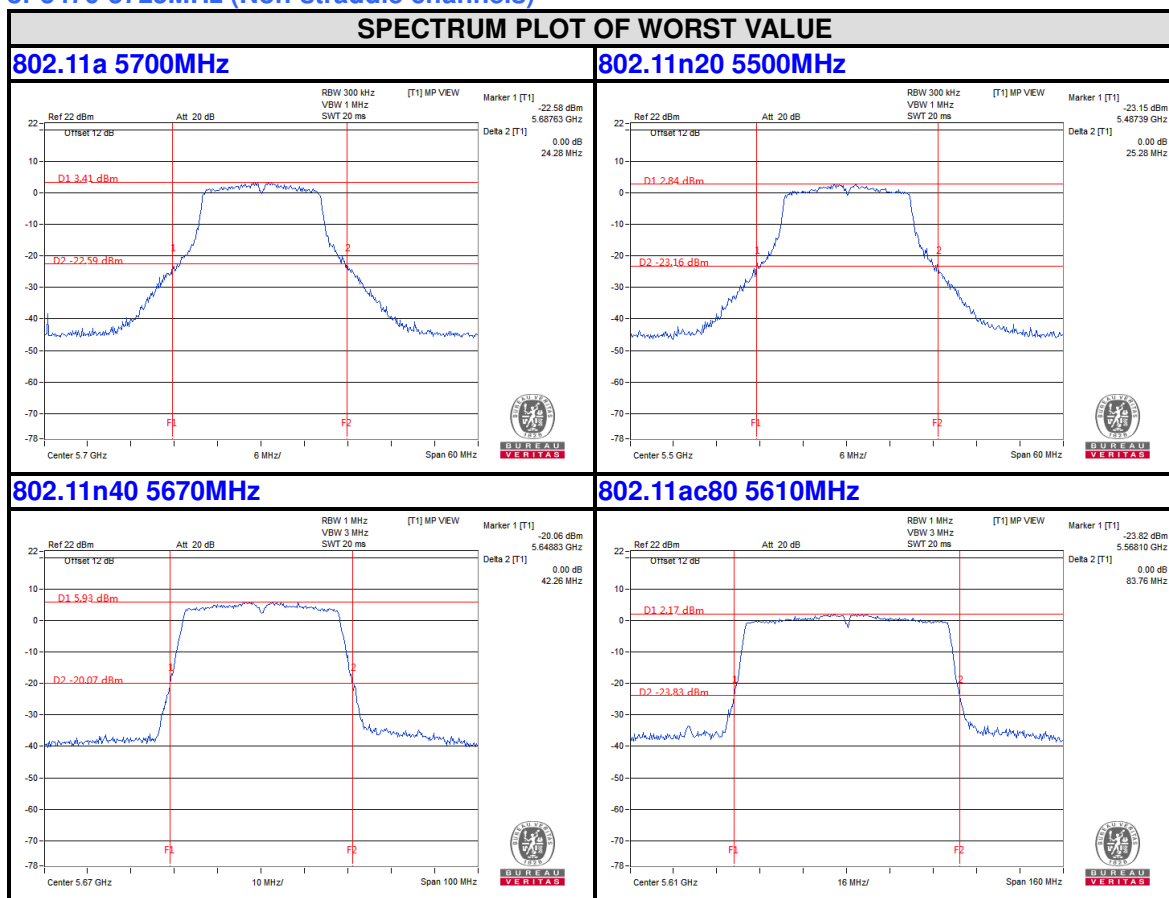
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For 5470-5725MHz (Non-straddle channels)



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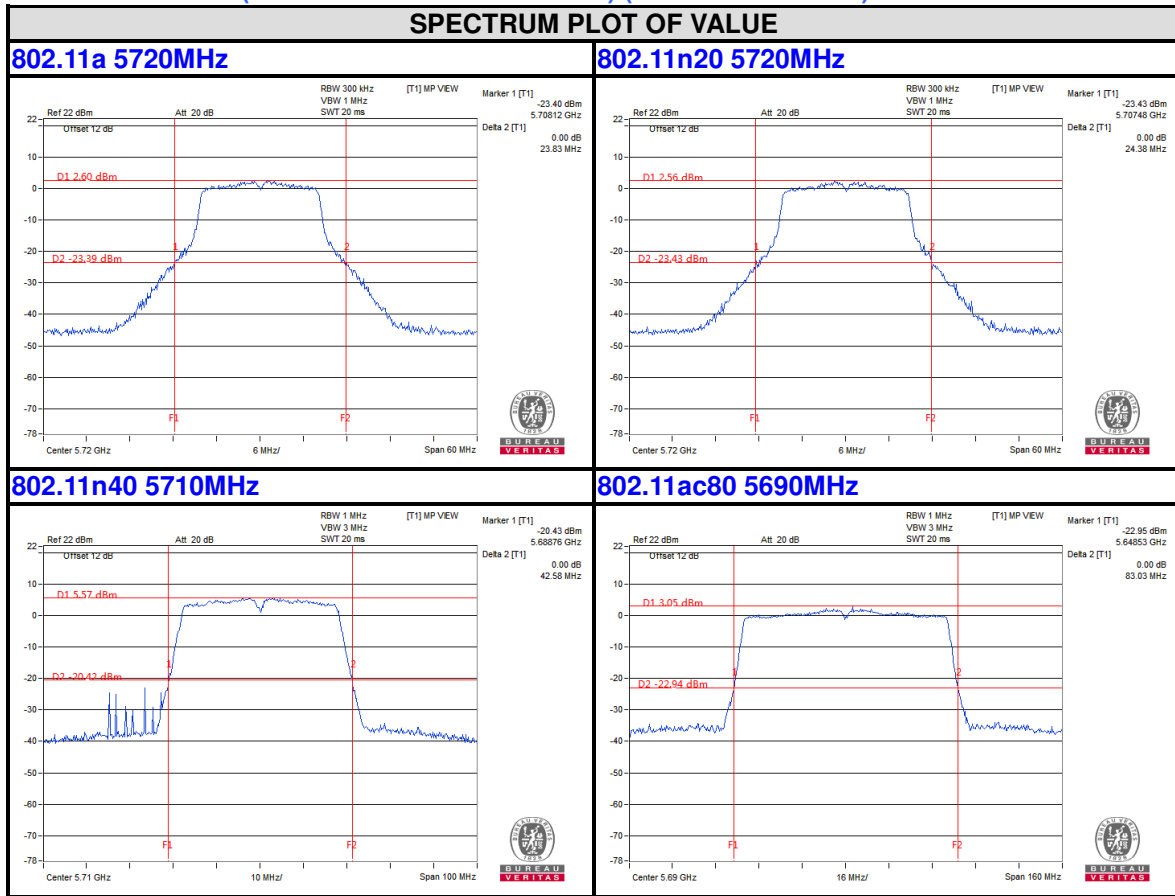
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For CH 144/142/138 (5720MHz/5710MHz/5690MHz) (Straddle channels)



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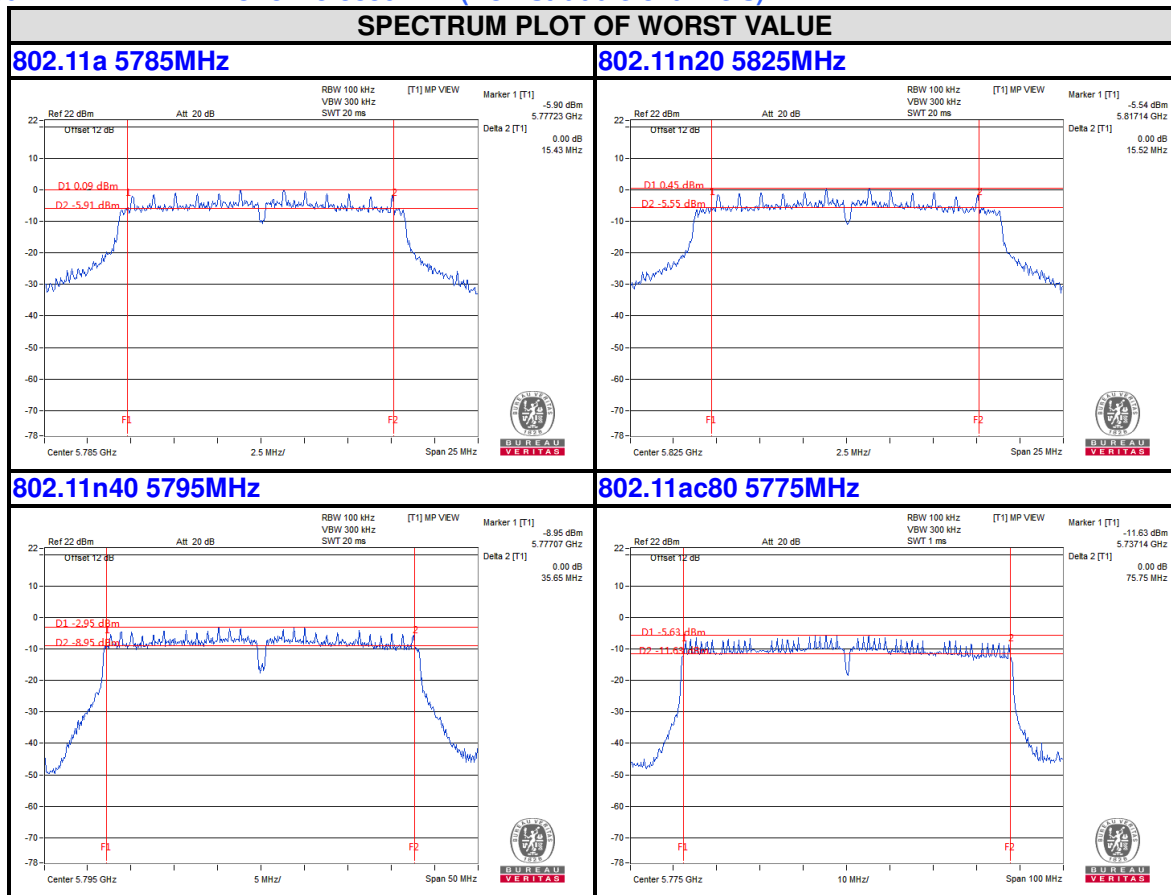
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6dB BANDWIDTH For 5725-5850MHz (Non-straddle channels)



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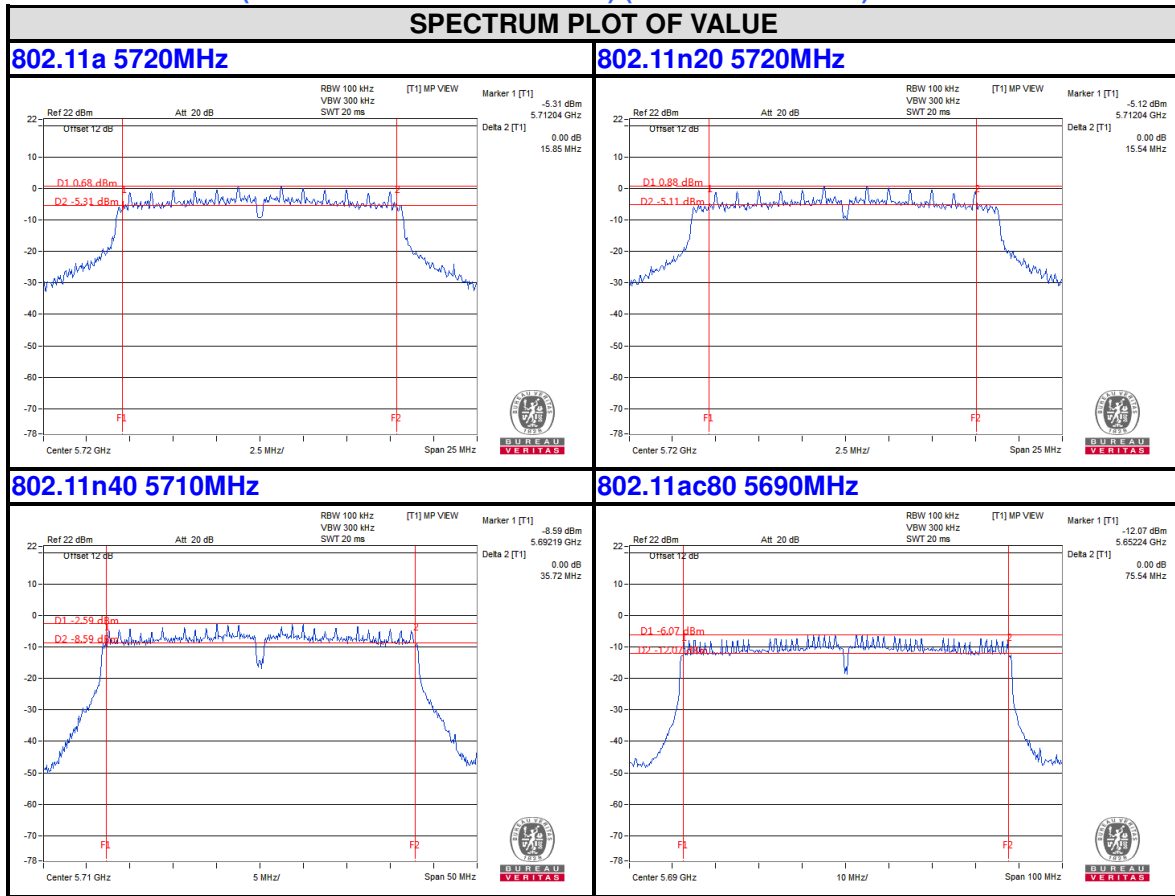
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For CH 144/142/138 (5720MHz/5710MHz/5690MHz) (Straddle channels)



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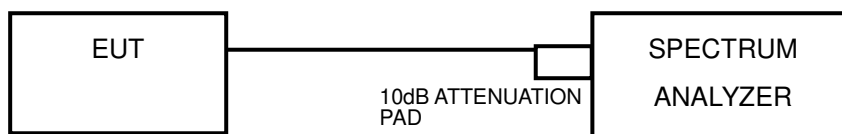


3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

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 = 500 kHz, Set VBW = 2 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)	PASS / FAIL
36	5180	-0.60	0.123	-0.477	9.70	PASS
40	5200	-0.46	0.123	-0.337	9.70	PASS
48	5240	-1.39	0.123	-1.267	9.70	PASS
52	5260	-1.45	0.123	-1.327	9.40	PASS
60	5300	-1.47	0.123	-1.347	9.40	PASS
64	5320	-1.40	0.123	-1.277	9.40	PASS
100	5500	-1.35	0.123	-1.227	10.10	PASS
116	5580	-1.37	0.123	-1.247	10.10	PASS
140	5700	-1.20	0.123	-1.077	10.10	PASS
144 For U-NII-2C	5720	-1.92	0.123	-1.797	10.10	PASS

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

For U-NII-1

1. Antenna gain= 7.3dBi, more than 6dBi, so the power density limit need to reduce 1.3dBi.

For U-NII-2A

2. Antenna gain= 7.6dBi, more than 6dBi, so the power density limit need to reduce 1.6dBi.

For U-NII-2C

3. Antenna gain= 6.9dBi, more than 6dBi, so the power density need to reduce 0.9dBi.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
144 For U-NII-3	5720	-11.93	0.123	-11.807	29.50	PASS
149	5745	-3.94	0.123	-3.817	29.50	PASS
157	5785	-4.01	0.123	-3.887	29.50	PASS
165	5825	-3.26	0.123	-3.137	29.50	PASS

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

For U-NII-3

1. Antenna gain= 6.5dBi, more than 6dBi, so the power density limit need to reduce 0.5dBi.



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)	PASS / FAIL
36	5180	-0.95	0.200	-0.750	9.70	PASS
40	5200	-1.29	0.200	-1.090	9.70	PASS
48	5240	-1.60	0.200	-1.400	9.70	PASS
52	5260	-1.74	0.200	-1.540	9.40	PASS
60	5300	-1.79	0.200	-1.590	9.40	PASS
64	5320	-1.76	0.200	-1.560	9.40	PASS
100	5500	-1.68	0.200	-1.480	10.10	PASS
116	5580	-1.72	0.200	-1.520	10.10	PASS
140	5700	-1.57	0.200	-1.370	10.10	PASS
144 For U-NII-2C	5720	-2.20	0.200	-2.000	10.10	PASS

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

For U-NII-1

- 1. Antenna gain= 7.3dBi, more than 6dBi, so the power density limit need to reduce 1.3dBi.

For U-NII-2A

- 2. Antenna gain= 7.6dBi, more than 6dBi, so the power density limit need to reduce 1.6dBi.

For U-NII-2C

- 3. Antenna gain= 6.9dBi, more than 6dBi, so the power density need to reduce 0.9dBi.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
144 For U-NII-3	5720	-12.14	0.200	-11.940	29.50	PASS
149	5745	-5.72	0.200	-4.040	29.50	PASS
157	5785	-7.18	0.200	-4.170	29.50	PASS
165	5825	-6.81	0.200	-3.970	29.50	PASS

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

For U-NII-3

- 1. Antenna gain= 6.5dBi, more than 6dBi, so the power density limit need to reduce 0.5dBi.



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)	PASS / FAIL
38	5190	-3.47	0.301	-3.169	9.70	PASS
46	5230	-4.22	0.301	-3.919	9.70	PASS
54	5270	-5.15	0.301	-4.849	9.40	PASS
62	5310	-5.04	0.301	-4.739	9.40	PASS
102	5510	-4.82	0.301	-4.519	10.10	PASS
118	5590	-4.82	0.301	-4.519	10.10	PASS
134	5670	-4.79	0.301	-4.489	10.10	PASS
142 For U-NII-2C	5710	-4.98	0.301	-4.679	10.10	PASS

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

For U-NII-1

1. Antenna gain= 7.3dBi, more than 6dBi, so the power density limit need to reduce 1.3dBi.

For U-NII-2A

2. Antenna gain= 7.6dBi, more than 6dBi, so the power density limit need to reduce 1.6dBi.

For U-NII-2C

3. Antenna gain= 6.9dBi, more than 6dBi, so the power density need to reduce 0.9dBi.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
142 For U-NII-3	5710	-15.26	0.301	-14.959	29.50	PASS
151	5755	-7.21	0.301	-6.909	29.50	PASS
159	5795	-6.95	0.301	-6.649	29.50	PASS

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

For U-NII-3

1. Antenna gain= 6.5dBi, more than 6dBi, so the power density limit need to reduce 0.5dBi.



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	-8.07	0.496	-7.574	9.70	PASS
58	5290	-9.01	0.496	-8.514	9.40	PASS
106	5530	-8.43	0.496	-7.934	10.10	PASS
122	5610	-8.57	0.496	-8.074	10.10	PASS
138 For U-NII-2C	5690	-8.68	0.496	-8.184	10.10	PASS

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

For U-NII-1

- 1. Antenna gain= 7.3dBi, more than 6dBi, so the power density limit need to reduce 1.3dBi.

For U-NII-2A

- 2. Antenna gain= 7.6dBi, more than 6dBi, so the power density limit need to reduce 1.6dBi.

For U-NII-2C

- 3. Antenna gain= 6.9dBi, more than 6dBi, so the power density need to reduce 0.9dBi.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
138 For U-NII-3	5690	-18.61	0.496	-18.114	29.50	PASS
155	5775	-10.25	0.496	-9.754	29.50	PASS

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

For U-NII-3

- 1. Antenna gain= 6.5dBi, more than 6dBi, so the power density limit need to reduce 0.5dBi.

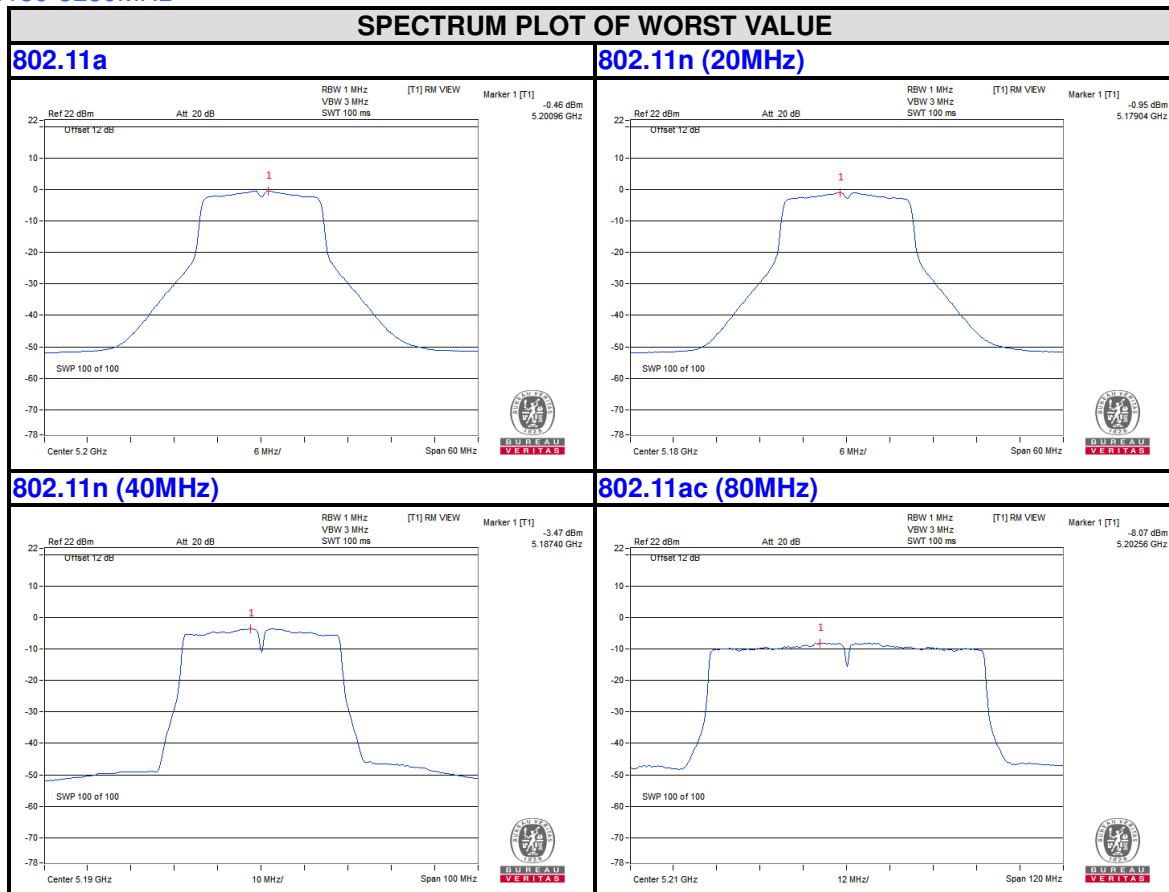


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Test Report No.: RF2212WDG0234-3

PSD Test Plot

BAND (U-NII-1)
5150-5250MHz



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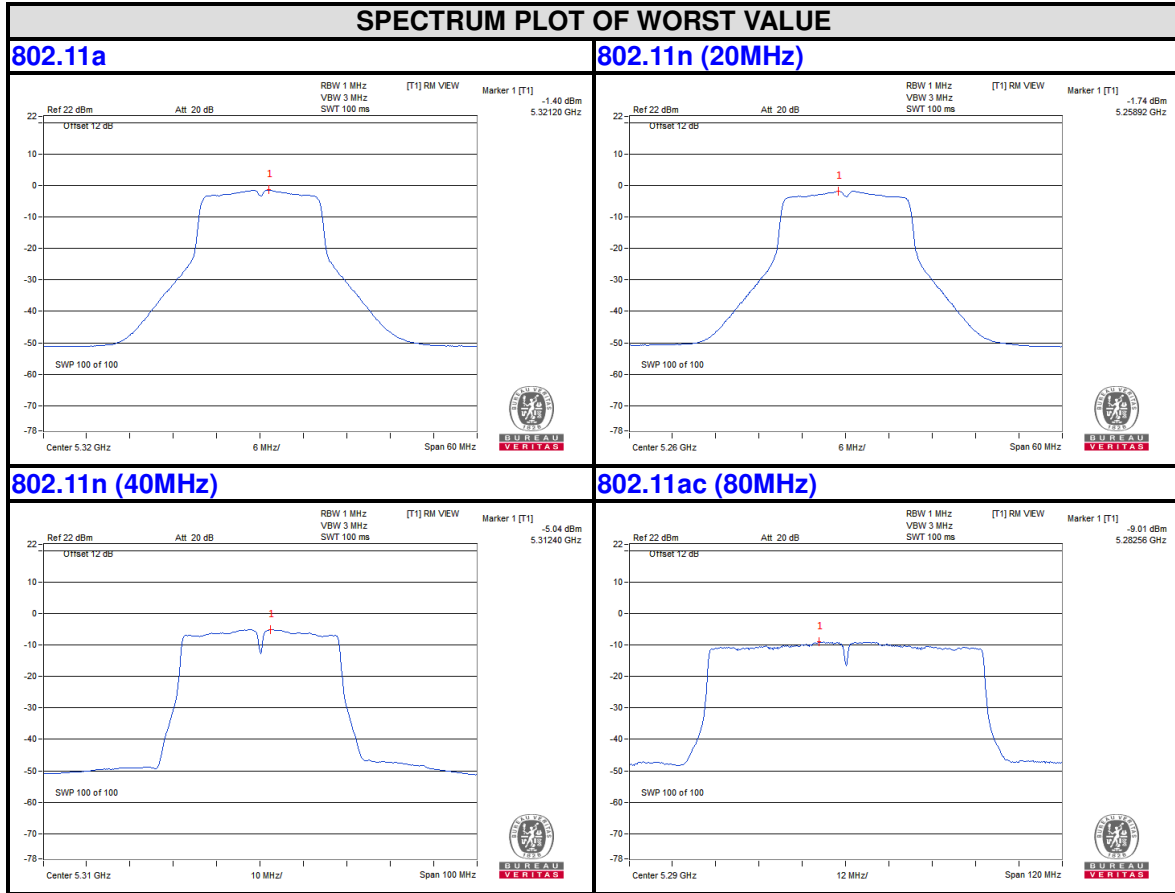
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BAND (U-NII-2A)
5250-5350MHz



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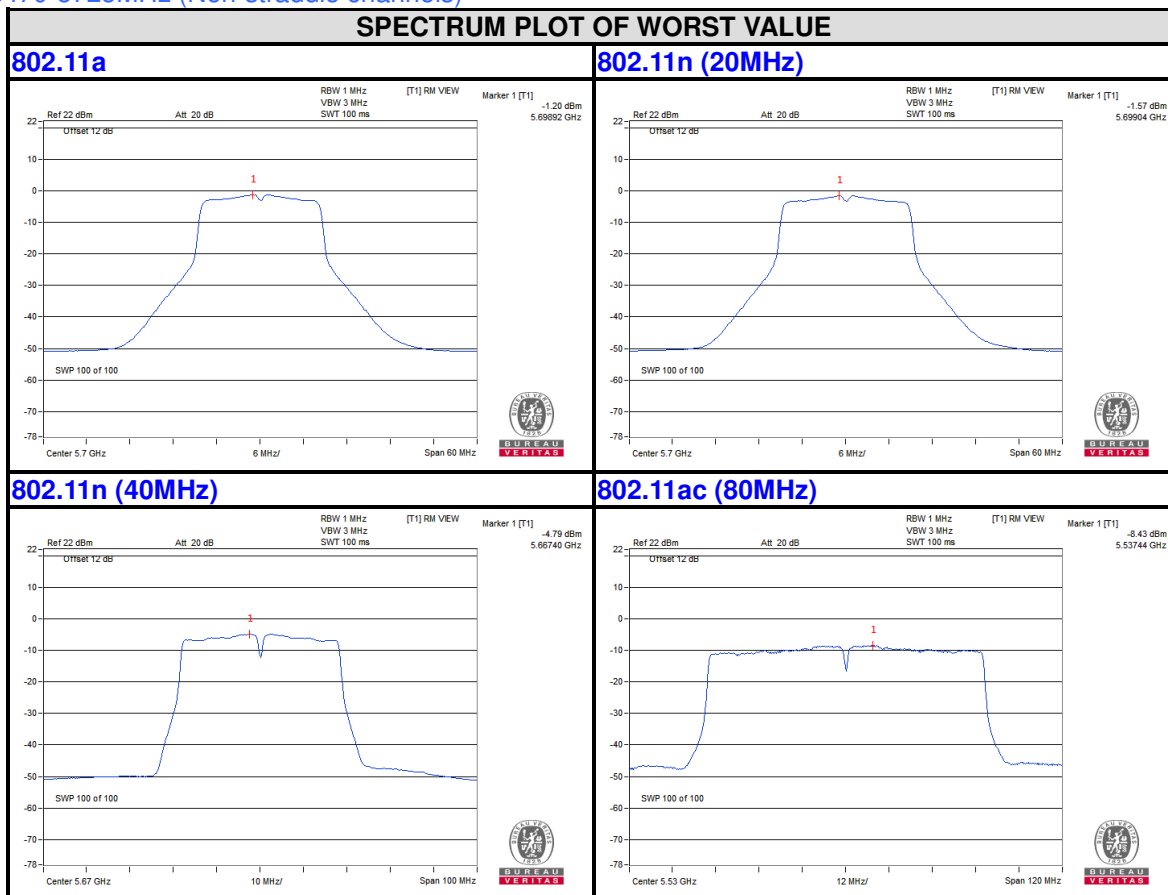
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BAND (U-NII-2C)
5470-5725MHz (Non-straddle channels)



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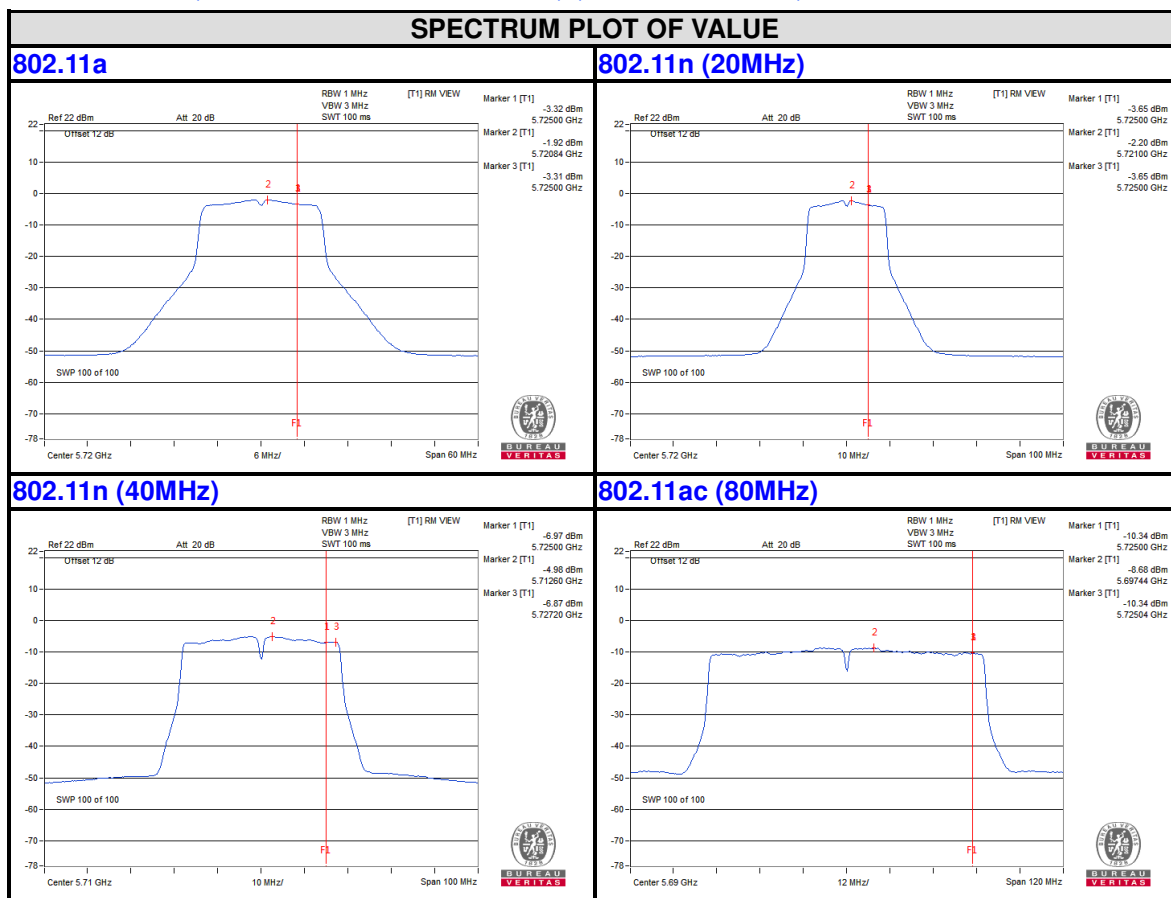
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CH 144/142/138 (5720MHz/5710MHz/5690MHz) (Straddle channels)



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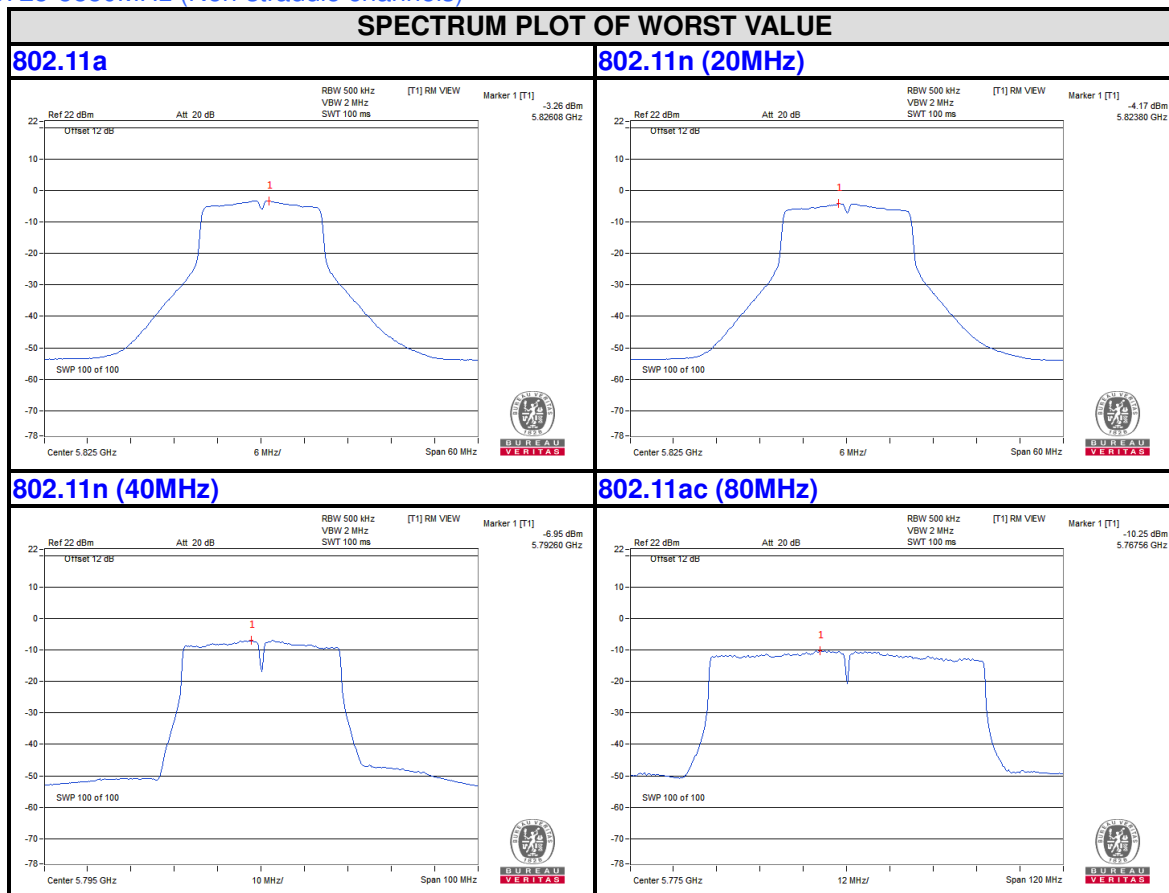
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BAND (U-NII-3)
5725-5850MHz (Non-straddle channels)



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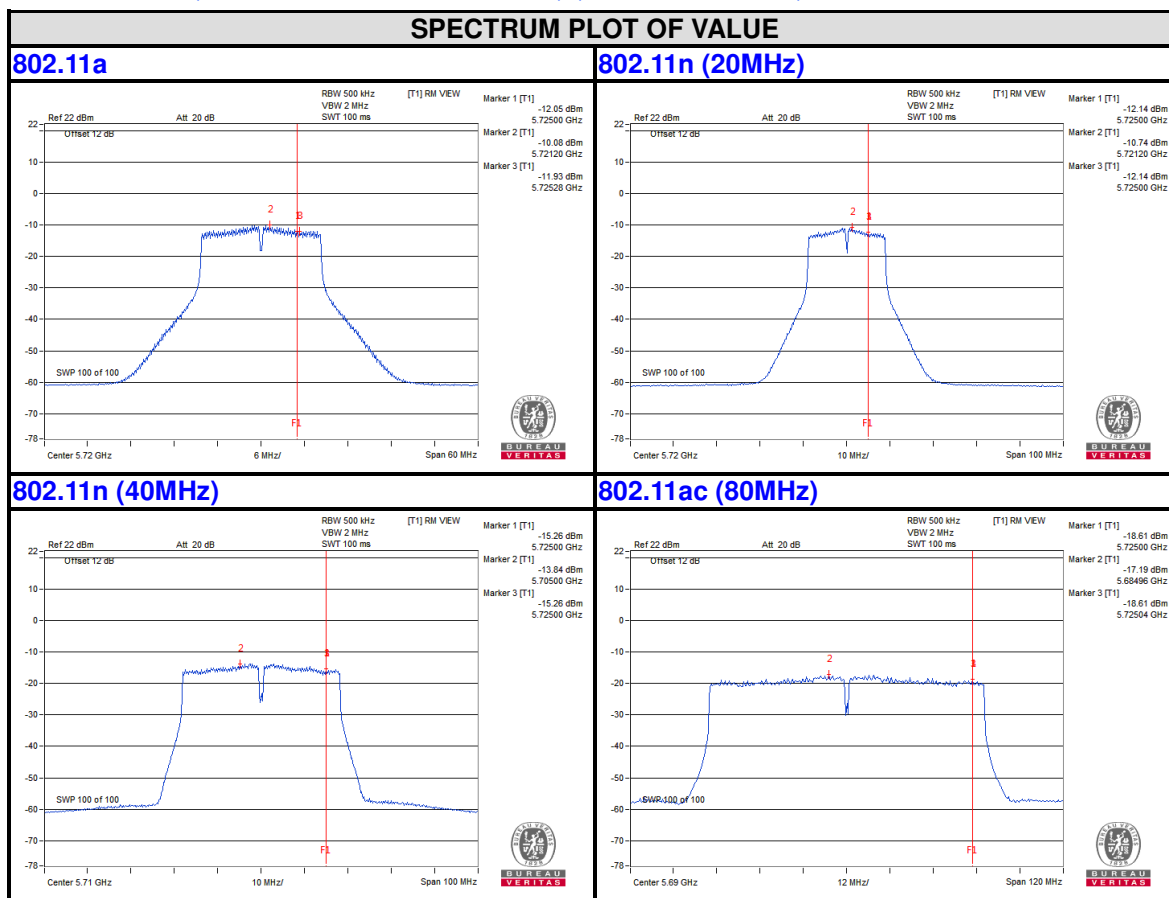
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CH 144/142/138 (5720MHz/5710MHz/5690MHz) (Straddle channels)



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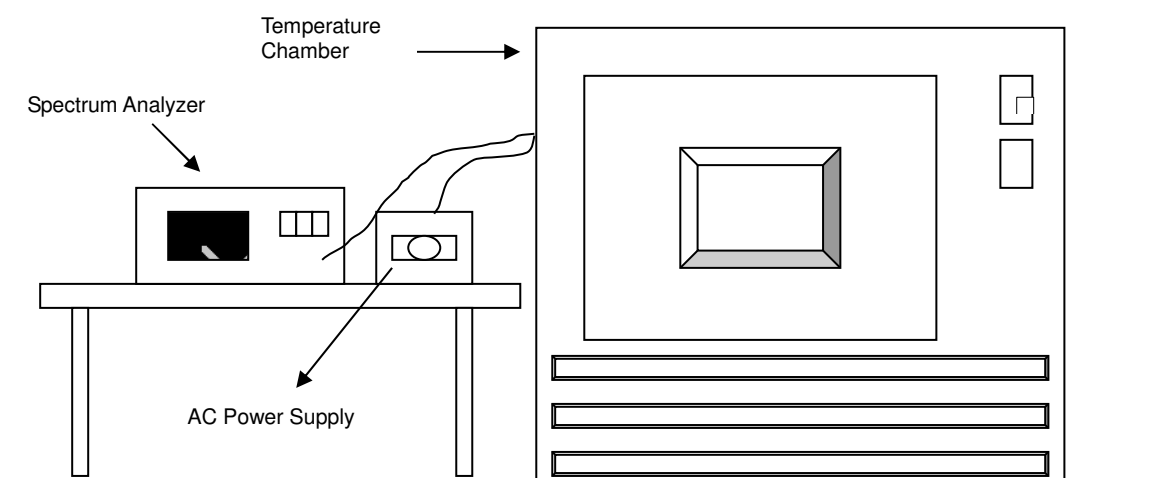
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3.5 FREQUENCY STABILITY

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.



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Test Report No.: RF2212WDG0234-3

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 (Vdc)	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	3.87	5180.0062	0.00012	5180.0058	0.00011	5180.0032	0.00006	5180.005	0.00010
40	3.87	5179.9771	-0.00044	5179.9787	-0.00041	5179.979	-0.00041	5179.978	-0.00042
30	3.87	5179.9993	-0.00001	5180.0031	0.00006	5180.003	0.00006	5180.0012	0.00002
20	3.87	5179.9838	-0.00031	5179.9852	-0.00029	5179.9842	-0.00031	5179.9846	-0.00030
10	3.87	5179.9788	-0.00041	5179.9791	-0.00040	5179.9825	-0.00034	5179.9784	-0.00042
0	3.87	5180.0195	0.00038	5180.0215	0.00042	5180.0173	0.00033	5180.0187	0.00036
-10	3.87	5179.9933	-0.00013	5179.9929	-0.00014	5179.9923	-0.00015	5179.9956	-0.00008
-20	3.87	5180.0063	0.00012	5180.0046	0.00009	5180.006	0.00012	5180.0045	0.00009
-30	3.87	5180.0002	0.00000	5180.0038	0.00007	5180.0023	0.00004	5180.003	0.00006

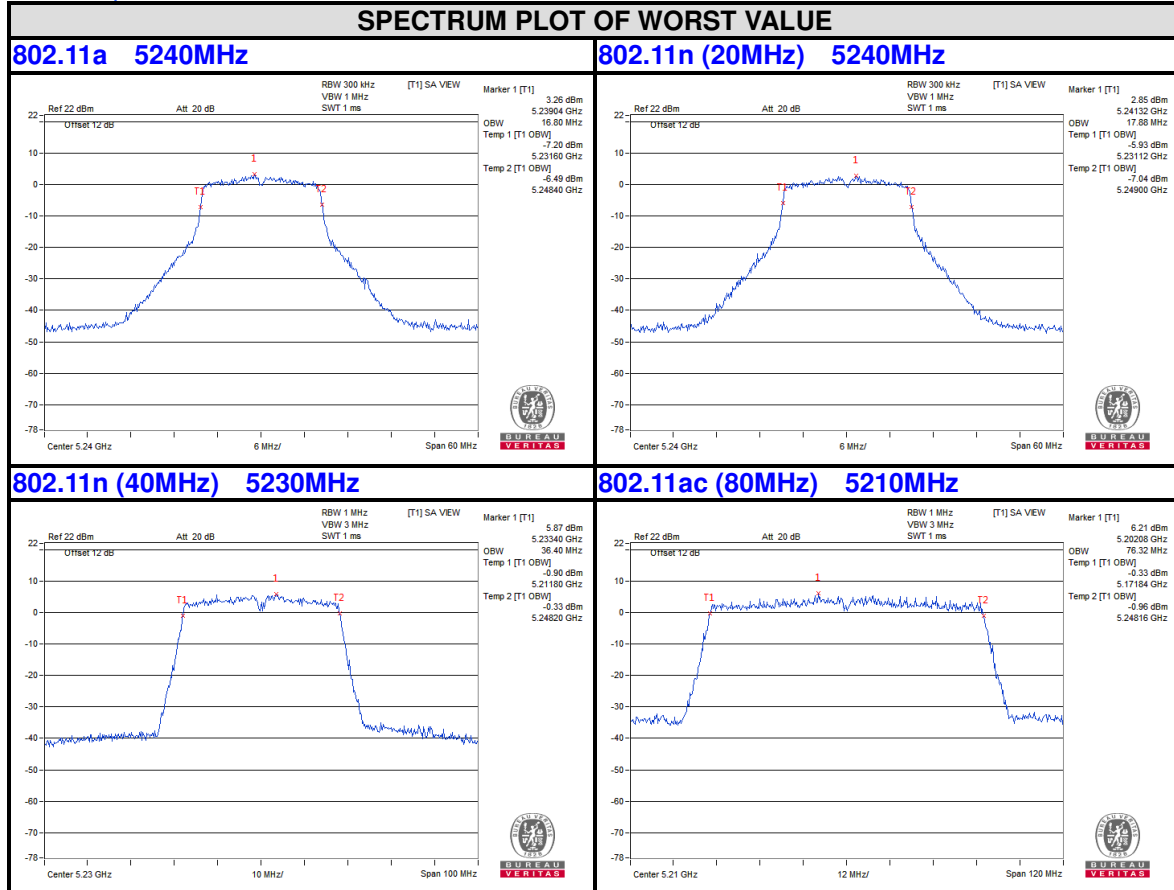
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	4.26	5179.9837	-0.00031	5179.9853	-0.00028	5179.9842	-0.00031	5179.9851	-0.00029
	3.87	5179.9838	-0.00031	5179.9852	-0.00029	5179.9842	-0.00031	5179.9846	-0.00030
	3.48	5179.9848	-0.00029	5179.9844	-0.00030	5179.9832	-0.00032	5179.9844	-0.00030



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BAND (U-NII-1)
5150-5250MHz
99% Occupied Bandwidth Without over DFS Band



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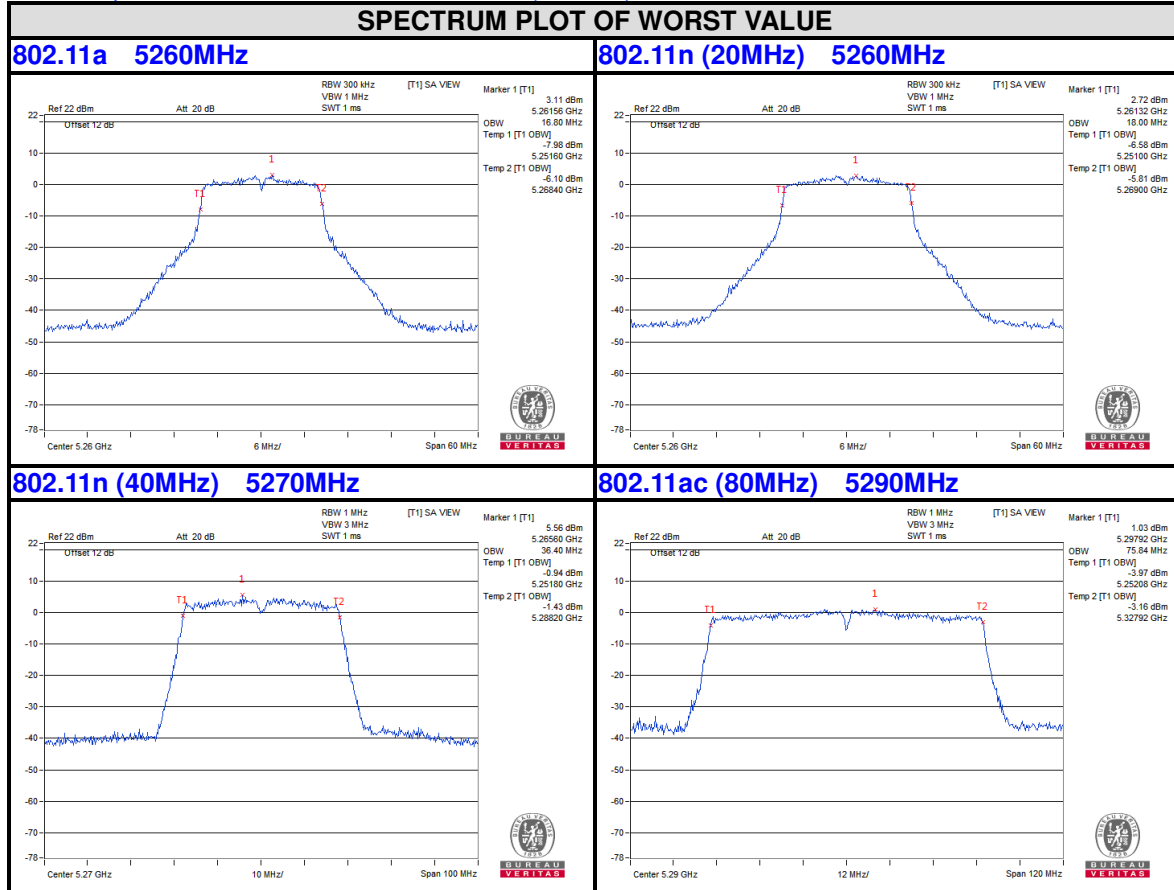
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BAND (U-NII-2A)
5250-5350MHz
99% Occupied Bandwidth Without over Band (U-NII-1)



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4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



**BUREAU
VERITAS**

Test Report No.: RF2212WDG0234-3

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.

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