



Test Report No.: RF2312WDG0147-3



TEST REPORT

Applicant	Particle Industries, Inc
Address	325 9th St, San Francisco, CA 94103 USA, 415-319-1553

Manufacturer or Supplier	Particle Industries, Inc
Address	325 9th St, San Francisco, CA 94103 USA, 415-319-1553
Product Name	M SoM
Brand Name	Particle
Model	M404
Additional Model & Model Difference	N/A
Date of tests	Dec. 21, 2023 ~ Jan. 26, 2024

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

FCC Part 15, Subpart E, Section 15.407

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

Tested by Lucas Chen
Project Engineer / EMC Department

Approved by Glyn He
Assistant Manager / EMC Department

Date: Mar. 14, 2024

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1. SUMMARY OF TEST RESULTS.....	5
1.1 MEASUREMENT UNCERTAINTY	5
2. GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT.....	6
2.2 DESCRIPTION OF TEST MODES.....	6
2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	10
2.3 DUTY CYCLE OF TEST SIGNAL	12
2.4 DESCRIPTION OF SUPPORT UNITS.....	13
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS.....	13
3. TEST TYPES AND RESULTS.....	15
3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT	15
3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT.....	15
3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS	16
3.1.3 TEST INSTRUMENTS.....	17
3.1.4 TEST PROCEDURES	18
3.1.5 DEVIATION FROM TEST STANDARD	18
3.1.6 TEST SETUP	19
3.1.7 EUT OPERATING CONDITION	20
3.1.8 TEST RESULTS	21
3.2 CONDUCTED EMISSION MEASUREMENT.....	76
3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	76
3.2.2 TEST INSTRUMENTS.....	76
3.2.3 TEST PROCEDURES	77
3.2.4 DEVIATION FROM TEST STANDARD	77
3.2.5 TEST SETUP	77
3.2.6 EUT OPERATING CONDITIONS	77
3.2.7 TEST RESULTS	78
3.3 TRANSMIT POWER MEASUREMENT	80



3.3.1	LIMITS OF TRANSMIT POWER MEASUREMENT	80
3.3.2	TEST SETUP	80
3.3.3	TEST INSTRUMENTS.....	81
3.3.4	TEST PROCEDURE.....	81
3.3.5	DEVIATION FROM TEST STANDARD	82
3.3.6	EUT OPERATING CONDITIONS	82
3.3.7	TEST RESULTS	83
3.4	PEAK POWER SPECTRAL DENSITY MEASUREMENT.....	95
3.4.1	LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT	95
3.4.2	TEST SETUP	95
3.4.3	TEST INSTRUMENTS.....	95
3.4.4	TEST PROCEDURES	95
3.4.5	DEVIATION FROM TEST STANDARD	96
3.4.6	EUT OPERATING CONDITIONS	96
3.4.7	TEST RESULTS	97
3.5	FREQUENCY STABILITY	104
3.5.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT	104
3.5.2	TEST SETUP	104
3.5.3	TEST INSTRUMENTS.....	104
3.5.4	TEST PROCEDURE.....	105
3.5.5	DEVIATION FROM TEST STANDARD	105
3.5.6	EUT OPERATING CONDITION	105
3.5.7	TEST RESULTS	106
4.	PHOTOGRAPHS OF THE TEST CONFIGURATION	109
5.	APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	110



Test Report No.: RF2312WDG0147-3

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2312WDG0147-3	Original release.	Mar. 14, 2024



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)(9)	AC Power Conducted Emissions	PASS	Meet the requirement of limit.
15.407(b) (1/2/3/4/9)	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	Meet the requirement of limit.

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.36dB
Radiated emissions	9KHz ~ 30MHz	2.80dB
	30MHz ~ 1GMHz	4.65dB
	1GHz ~ 18GHz	5.01dB
	18GHz ~ 40GHz	4.10dB

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	M SoM
BRAND	Particle
MODEL NO.	M404
FCC ID	2AEMI-M404
POWER SUPPLY	VCC: 3.8V. 3V3:3.3V
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 150Mbps 802.11ac: up to 200.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz)
CONDUCTED OUTPUT POWER	30.832mW for 5180 ~ 5240MHz (Maximum AVG Power) 64.269mW for 5260 ~ 5320MHz (Maximum AVG Power) 47.753mW for 5500 ~ 5700MHz (Maximum AVG Power) 67.920mW for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: 5260 ~ 5320MHz: 5500 ~ 5700MHz: 5745 ~ 5825MHz: PCB antenna with 6.8dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

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.: W7L-P23120015) for detailed product photo.



3. The EUT provides completed transmitters and receivers, the EUT uses only one antenna at any time.

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



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

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



FOR 5470 ~ 5725MHz

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

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

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

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

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



2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered by DC 3.8V from SOM Mini SYS test board with wifi(5G) link

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

NOTE:

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

NOTE: “-” means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
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
	802.11a	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
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11a	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

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

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



POWER LINE CONDUCTED EMISSION TEST:

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

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

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11a	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
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11a	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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 53%RH	DC 3.8V from SOM Mini SYS test board	Stalker
RE≥1G	25deg. C, 53%RH	DC 3.8V from SOM Mini SYS test board	Stalker
PLC	20deg. C, 56%RH	DC 3.8V from SOM Mini SYS test board	Summer
APCM	25deg. C, 60%RH	DC 3.8V from SOM Mini SYS test board	Vincent



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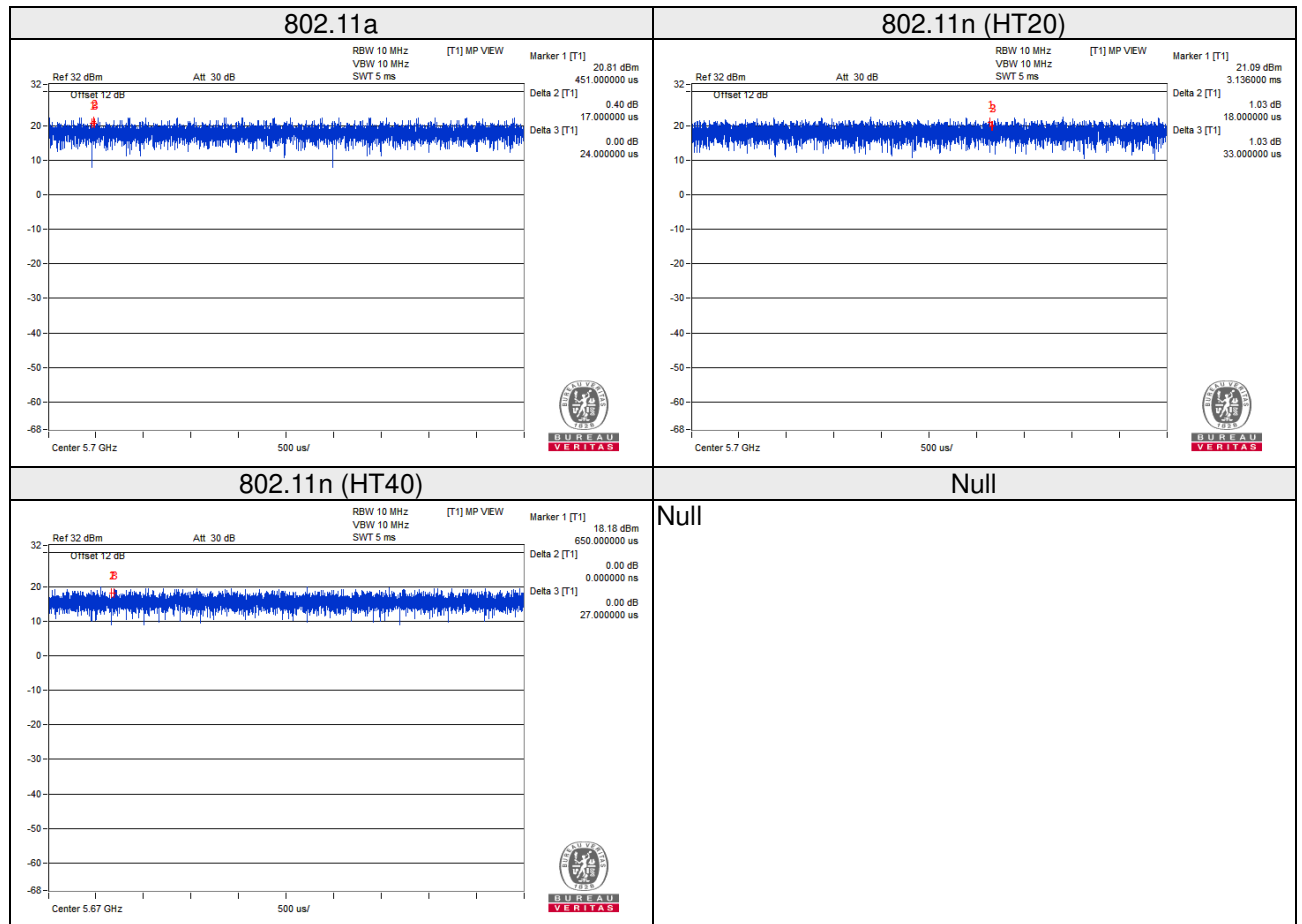
Test Report No.: RF2312WDG0147-3

2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle =100% , Duty factor = 0

802.11n (HT20): Duty cycle =100% , Duty factor = 0

802.11n (HT40): Duty cycle =100% , Duty factor = 0





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	Notebook	DELL	Inspiron 13-7378	GMSJZD2	N/A
2	SOM Mini SYS test board	N/A	V0.8	N/A	N/A
3	Adaptor	SONY	AC-UUD12	190112010051	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 0.8m; DC Line: Unshielded, Non-detachable 1.8m USB Cable: Shielded, Detachable, 0.5m
2	N/A
3	USB Cable: Shielded, Detachable, 0.5m

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)

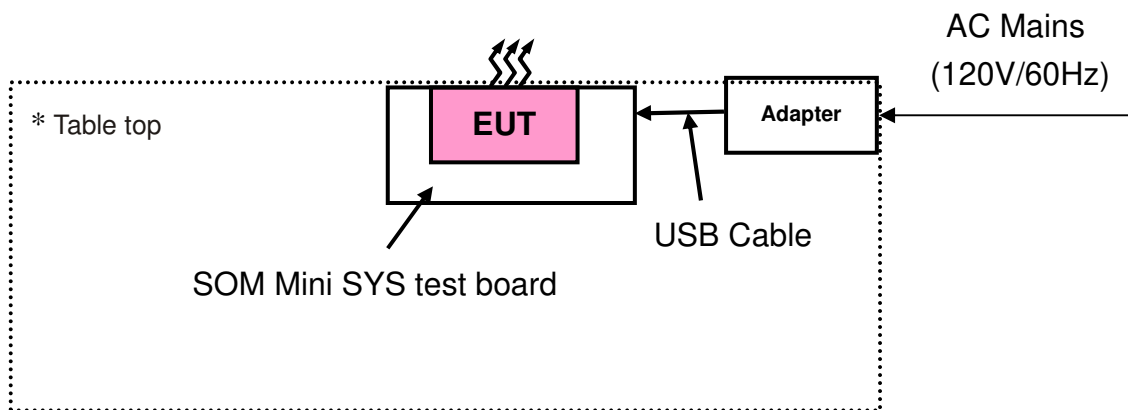
789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10-2013

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

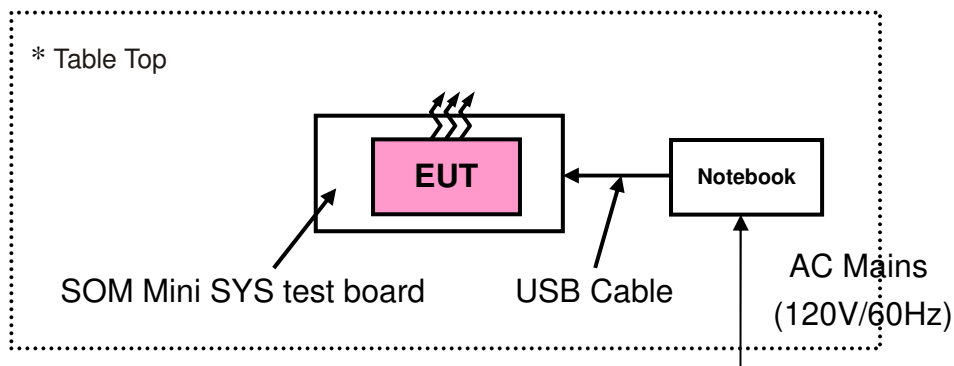
2.6 CONFIGURATION OF SYSTEM UNDER TEST

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:

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



3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Jan. 02, 25
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Apr. 05, 24
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May. 09, 24
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 06, 24
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Jan. 08, 25
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. 20, 24
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. 02, 25
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	N/A

NOTES:

1. Equipment are calibrated by calibration laboratory accredited to ISO/IEC 17025 by a mutually recognized Accreditation.
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, and the designation number is CN1174.

3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise, the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTES:

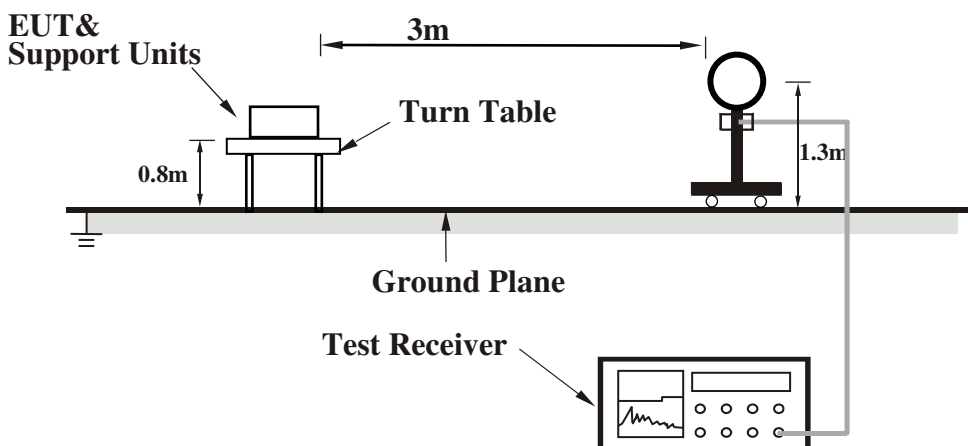
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated, and the worst-case emissions are reported.

3.1.5 DEVIATION FROM TEST STANDARD

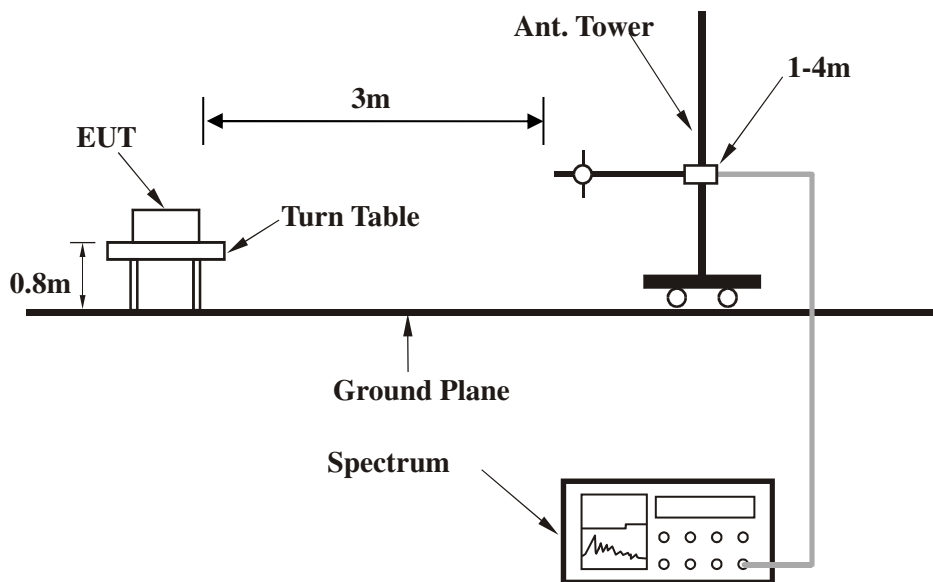
No deviation.

3.1.6 TEST SETUP

Below 30MHz

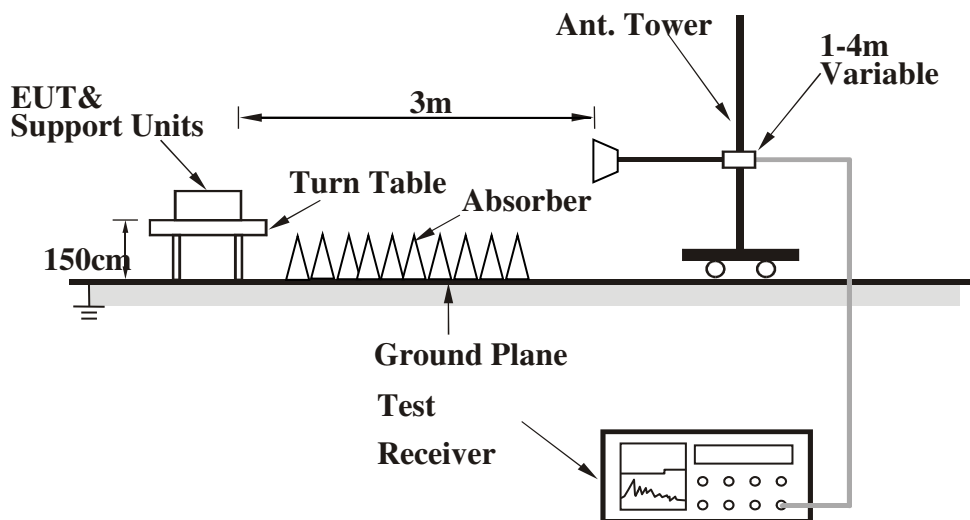


Below 1GHz test setup



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

Above 1GHz test setup



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

3.1.7 EUT OPERATING CONDITION

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



3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

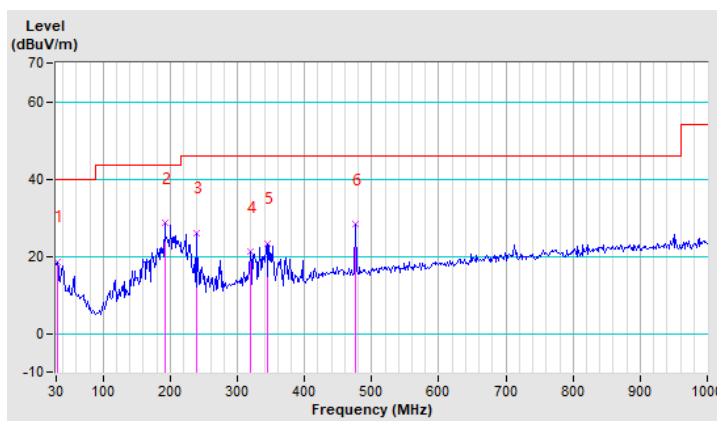
802.11a

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	31.55	18.40 QP	40.00	-21.60	2.36 H	329	37.25	-18.85
2	191.67	28.54 QP	43.50	-14.96	2.17 H	311	47.92	-19.38
3	238.30	26.08 QP	46.00	-19.92	2.04 H	297	44.42	-18.34
4	319.13	21.05 QP	46.00	-24.95	1.89 H	283	36.39	-15.34
5	344.01	23.31 QP	46.00	-22.69	1.75 H	269	37.96	-14.65
6	476.14	28.18 QP	46.00	-17.82	1.60 H	254	39.50	-11.32

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





BUREAU VERITAS

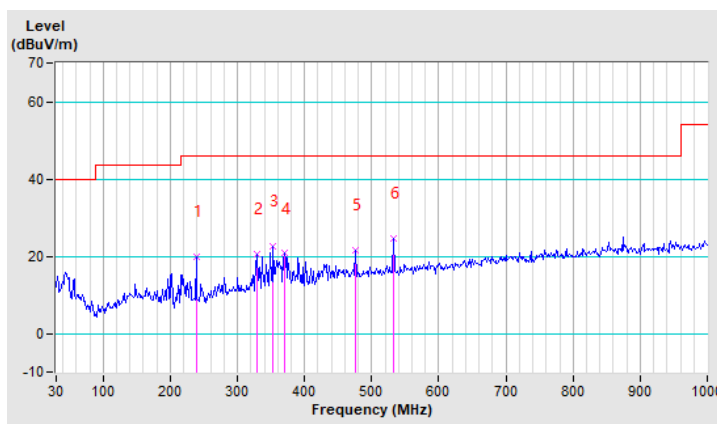
Test Report No.: RF2312WDG0147-3

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	238.30	19.80 QP	46.00	-26.20	1.00 V	177	38.14	-18.34
2	330.02	20.63 QP	46.00	-25.37	1.00 V	210	35.67	-15.04
3	353.33	22.70 QP	46.00	-23.30	1.06 V	162	37.12	-14.42
4	370.43	20.75 QP	46.00	-25.25	1.00 V	195	34.82	-14.07
5	476.14	21.63 QP	46.00	-24.37	1.00 V	227	32.95	-11.32
6	532.10	24.50 QP	46.00	-21.50	1.00 V	242	34.74	-10.24

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.





BUREAU VERITAS

Test Report No.: RF2312WDG0147-3

Band 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	5148.40	63.03 PK	74.00	-10.97	1.00 H	10	54.99	8.04
2	5148.40	47.06 AV	54.00	-6.94	1.00 H	10	39.02	8.04
3	5150.00	64.71 PK	74.00	-9.29	1.00 H	10	56.67	8.04
4	5150.00	48.07 AV	54.00	-5.93	1.02 H	25	40.03	8.04
5	*5180.00	110.06 PK			1.00 H	10	102.07	7.99
6	*5180.00	99.02 AV			1.02 H	25	91.03	7.99
7	#10360.00	56.96 PK	68.20	-11.24	1.00 H	25	41.32	15.64
8	15540.00	65.47 PK	74.00	-8.53	1.02 H	210	42.47	23.00
9	15540.00	48.13 AV	54.00	-5.87	1.02 H	210	25.13	23.00

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	5145.51	56.29 PK	74.00	-17.71	2.50 V	359	48.24	8.05
2	5145.51	37.52 AV	54.00	-16.48	1.00 V	280	29.47	8.05
3	5150.00	58.96 PK	74.00	-15.04	2.50 V	359	50.92	8.04
4	5150.00	37.80 AV	54.00	-16.20	1.00 V	288	29.76	8.04
5	*5180.00	102.25 PK			1.00 V	288	94.26	7.99
6	*5180.00	92.18 AV			1.00 V	288	84.19	7.99
7	#10360.00	56.06 PK	68.20	-12.14	1.00 V	3	40.42	15.64
8	15540.00	65.12 PK	74.00	-8.88	1.00 V	21	42.12	23.00
9	15540.00	46.32 AV	54.00	-7.68	1.00 V	21	23.32	23.00

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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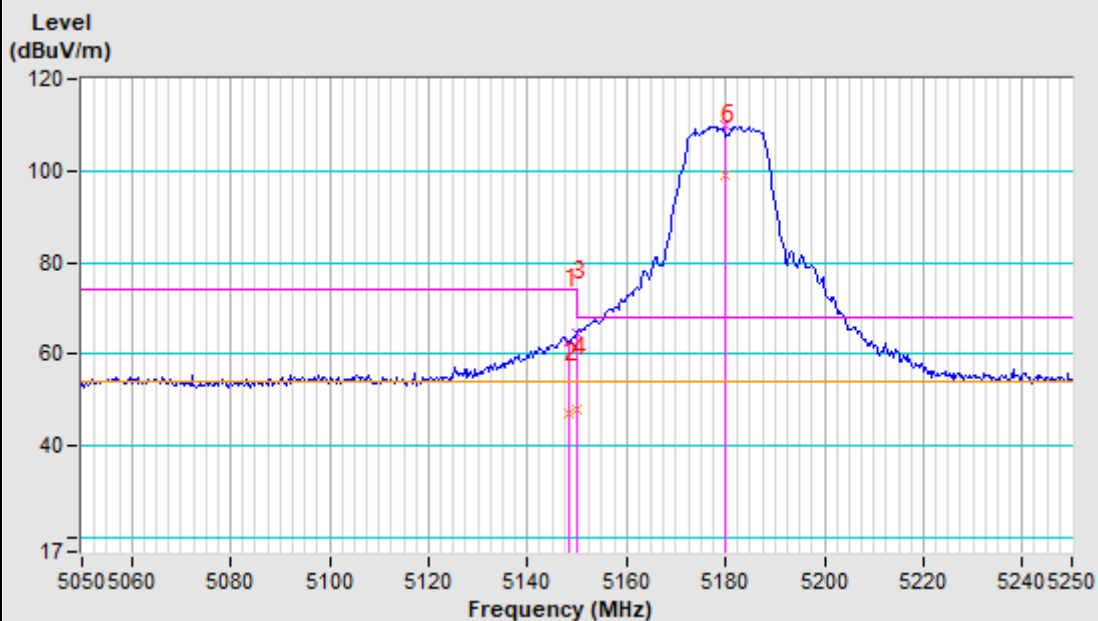


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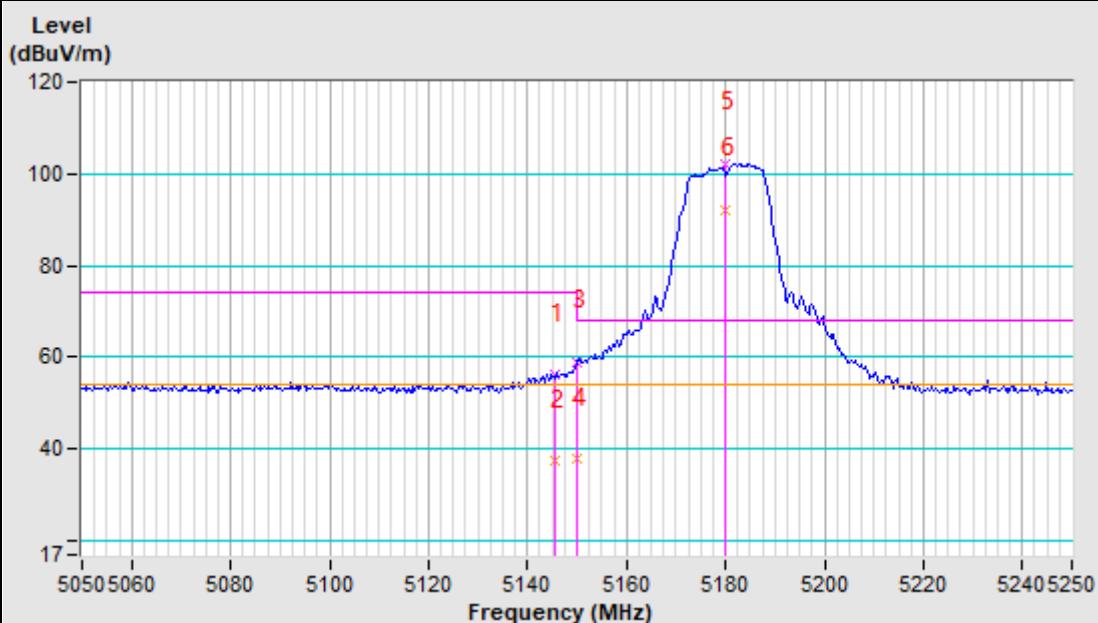
Test Report No.: RF2312WDG0147-3

Band edge Plot

5180MHz Horizontal



5180MHz Vertical





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	5147.53	52.64 PK	74.00	-21.36	1.00 H	35	44.59	8.05
2	5147.53	43.54 AV	54.00	-10.46	1.00 H	35	35.49	8.05
3	5150.00	56.09 PK	74.00	-17.91	1.00 H	21	48.05	8.04
4	5150.00	44.53 AV	54.00	-9.47	1.00 H	21	36.49	8.04
5	*5200.00	109.39 PK			1.00 H	30	101.43	7.96
6	*5200.00	99.35 AV			1.00 H	30	91.39	7.96
7	#10400.00	59.40 PK	68.20	-8.80	1.00 H	331	43.43	15.97
8	15600.00	64.25 PK	74.00	-9.75	1.00 H	12	41.33	22.92
9	15600.00	47.25 AV	54.00	-6.75	1.00 H	12	24.33	22.92

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	51.26 PK	74.00	-22.74	1.00 V	12	43.21	8.05
2	5145.00	41.53 AV	54.00	-12.47	1.00 V	12	33.48	8.05
3	5150.00	53.80 PK	74.00	-20.20	1.00 V	21	45.76	8.04
4	5150.00	42.35 AV	54.00	-11.65	1.00 V	21	34.31	8.04
5	*5200.00	101.24 PK			1.00 V	12	93.28	7.96
6	*5200.00	90.14 AV			1.00 V	12	82.18	7.96
7	#10400.00	59.65 PK	68.20	-8.55	1.00 V	52	43.68	15.97
8	15600.00	62.32 PK	74.00	-11.68	1.00 V	221	39.40	22.92
9	15600.00	48.25 AV	54.00	-5.75	1.00 V	221	25.33	22.92

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	53.35 PK	74.00	-20.65	1.00 H	50	45.30	8.05
2	5145.00	42.10 AV	54.00	-11.90	1.00 H	50	34.05	8.05
3	5150.00	53.82 PK	74.00	-20.18	1.00 H	1	45.78	8.04
4	5150.00	41.98 AV	54.00	-12.02	1.00 H	1	33.94	8.04
5	*5240.00	110.26 PK			1.00 H	5	102.38	7.88
6	*5240.00	100.36 AV			1.00 H	5	92.48	7.88
7	5350.00	55.46 PK	74.00	-18.54	1.02 H	11	47.77	7.69
8	5350.00	43.45 AV	54.00	-10.55	1.02 H	11	35.76	7.69
9	5360.00	55.34 PK	74.00	-18.66	1.00 H	5	47.67	7.67
10	5360.00	43.20 AV	54.00	-10.80	1.00 H	5	35.53	7.67
11	#10480.00	52.35 PK	68.20	-15.85	1.00 H	4	35.71	16.64
12	15720.00	53.20 PK	74.00	-20.80	1.00 H	4	30.44	22.76
13	15720.00	47.25 AV	54.00	-6.75	1.00 H	4	24.49	22.76

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	5123.00	52.65 PK	74.00	-21.35	1.00 V	21	44.56	8.09
2	5123.00	41.60 AV	54.00	-12.40	1.00 V	21	33.51	8.09
3	5150.00	49.69 PK	74.00	-24.31	1.00 V	0	41.65	8.04
4	5150.00	42.10 AV	54.00	-11.90	1.00 V	21	34.06	8.04
5	*5240.00	101.80 PK			1.00 V	2	93.92	7.88
6	*5240.00	91.75 AV			1.00 V	2	83.87	7.88
7	5350.00	52.51 PK	74.00	-21.49	1.00 V	21	44.82	7.69
8	5350.00	42.15 AV	54.00	-11.85	1.00 V	21	34.46	7.69
9	5365.71	50.86 PK	74.00	-23.14	1.00 V	0	43.20	7.66
10	5365.71	43.20 AV	54.00	-10.80	1.00 V	360	35.54	7.66
11	#10480.00	57.25 PK	68.20	-10.95	1.50 V	21	40.61	16.64
12	15720.00	58.46 PK	74.00	-15.54	1.05 V	52	35.70	22.76
13	15720.00	46.20 AV	54.00	-7.80	1.05 V	52	23.44	22.76

REMARKS:

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



802.11n (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	5149.04	65.38 PK	74.00	-8.62	1.00 H	20	57.34	8.04
2	5149.04	46.87 AV	54.00	-7.13	1.00 H	20	38.83	8.04
3	5150.00	65.37 PK	74.00	-8.63	1.00 H	20	57.33	8.04
4	5150.00	47.98 AV	54.00	-6.02	1.00 H	20	39.94	8.04
5	*5180.00	108.79 PK			1.00 H	20	100.80	7.99
6	*5180.00	98.81 AV			1.00 H	210	90.82	7.99
7	#10360.00	54.25 PK	68.20	-13.95	1.00 H	21	38.61	15.64
8	15540.00	66.25 PK	74.00	-7.75	1.00 H	21	43.25	23.00
9	15540.00	47.30 AV	54.00	-6.70	1.00 H	21	24.30	23.00

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5146.00	55.46 PK	74.00	-18.54	1.00 V	150	47.41	8.05
2	5146.00	46.43 AV	54.00	-7.57	1.00 V	150	38.38	8.05
3	5150.00	57.59 PK	74.00	-16.41	1.00 V	190	49.55	8.04
4	5150.00	43.50 AV	54.00	-10.50	1.00 V	190	35.46	8.04
5	*5180.00	100.10 PK			1.00 V	21	92.11	7.99
6	*5180.00	90.08 AV			1.00 V	21	82.09	7.99
7	#10360.00	54.68 PK	68.20	-13.52	1.01 V	15	39.04	15.64
8	15540.00	64.26 PK	74.00	-9.74	1.00 V	2	41.26	23.00
9	15540.00	47.20 AV	54.00	-6.80	1.00 V	2	24.20	23.00

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 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	5120.00	54.91 PK	74.00	-19.09	1.00 H	20	46.81	8.10
2	5120.00	42.30 AV	54.00	-11.70	1.00 H	20	34.20	8.10
3	5145.00	54.75 PK	74.00	-19.25	1.00 H	20	46.70	8.05
4	5145.00	43.26 AV	54.00	-10.74	1.00 H	20	35.21	8.05
5	*5200.00	109.49 PK			1.00 H	21	101.53	7.96
6	*5200.00	99.71 AV			1.00 H	21	91.75	7.96
7	#10400.00	56.26 PK	68.20	-11.94	1.00 H	21	40.29	15.97
8	15600.00	62.30 PK	74.00	-11.70	1.00 H	52	39.38	22.92
9	15600.00	45.20 AV	54.00	-8.80	1.00 H	52	22.28	22.92

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	5138.00	53.66 PK	74.00	-20.34	1.00 V	21	45.60	8.06
2	5138.00	41.89 AV	54.00	-12.11	1.00 V	21	33.83	8.06
3	5150.00	53.47 PK	74.00	-20.53	1.00 V	21	45.43	8.04
4	5150.00	42.07 AV	54.00	-11.93	1.00 V	21	34.03	8.04
5	*5200.00	101.74 PK			1.00 V	21	93.78	7.96
6	*5200.00	91.34 AV			1.00 V	21	83.38	7.96
7	#10400.00	56.30 PK	68.20	-11.90	1.00 V	10	40.33	15.97
8	15600.00	62.30 PK	74.00	-11.70	1.00 V	9	39.38	22.92
9	15600.00	47.25 AV	54.00	-6.75	1.00 V	9	24.33	22.92

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.: RF2312WDG0147-3

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	5140.00	55.12 PK	74.00	-18.88	1.00 H	21	47.06	8.06
2	5140.00	43.59 AV	54.00	-10.41	1.00 H	21	35.53	8.06
3	5150.00	53.14 PK	74.00	-20.86	1.00 H	21	45.10	8.04
4	5150.00	42.12 AV	54.00	-11.88	1.00 H	21	34.08	8.04
5	*5240.00	110.51 PK			1.00 H	21	102.63	7.88
6	*5240.00	100.32 AV			1.00 H	21	92.44	7.88
7	5350.00	54.95 PK	74.00	-19.05	1.00 H	21	47.26	7.69
8	5350.00	43.32 AV	54.00	-10.68	1.00 H	21	35.63	7.69
9	5357.00	55.93 PK	74.00	-18.07	1.00 H	21	48.25	7.68
10	5357.00	43.37 AV	54.00	-10.63	1.00 H	21	35.69	7.68
11	#10480.00	60.26 PK	68.20	-7.94	1.00 H	210	43.62	16.64
12	11570.00	62.00 PK	74.00	-12.00	1.00 H	91	45.37	16.63
13	11570.00	48.35 AV	54.00	-5.65	1.00 H	91	31.72	16.63

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	53.45 PK	74.00	-20.55	1.00 V	2	45.39	8.06
2	5140.00	42.31 AV	54.00	-11.69	1.00 V	2	34.25	8.06
3	5150.00	52.67 PK	74.00	-21.33	1.00 V	2	44.63	8.04
4	5150.00	41.35 AV	54.00	-12.65	1.00 V	2	33.31	8.04
5	*5240.00	101.96 PK			1.00 V	145	94.08	7.88
6	*5240.00	92.10 AV			1.00 V	145	84.22	7.88
7	5350.00	53.46 PK	74.00	-20.54	1.00 V	2	45.77	7.69
8	5350.00	42.36 AV	54.00	-11.64	1.00 V	2	34.67	7.69
9	5361.00	53.24 PK	74.00	-20.76	1.00 V	210	45.57	7.67
10	5361.00	42.80 AV	54.00	-11.20	1.00 V	210	35.13	7.67
11	#10480.00	61.79 PK	68.20	-6.41	1.00 V	21	45.15	16.64
12	15720.00	65.40 PK	74.00	-8.60	1.00 V	21	42.64	22.76
13	15720.00	45.20 AV	54.00	-8.80	1.00 V	21	22.44	22.76

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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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	67.74 PK	74.00	-6.26	1.00 H	25	59.69	8.05
2	5145.00	50.87 AV	54.00	-3.13	1.00 H	25	42.82	8.05
3	5150.00	67.45 PK	74.00	-6.55	1.00 H	25	59.41	8.04
4	5150.00	50.73 AV	54.00	-3.27	1.00 H	25	42.69	8.04
5	*5190.00	106.48 PK			1.00 H	25	98.50	7.98
6	*5190.00	95.96 AV			1.00 H	25	87.98	7.98
7	#10380.00	56.35 PK	68.20	-11.85	1.00 H	21	40.55	15.80
8	15570.00	62.35 PK	74.00	-11.65	1.00 H	21	39.39	22.96
9	15570.00	46.25 AV	54.00	-7.75	1.00 H	21	23.29	22.96

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	57.70 PK	74.00	-16.30	1.00 V	359	49.65	8.05
2	5145.00	43.46 AV	54.00	-10.54	1.00 V	359	35.41	8.05
3	5150.00	59.86 PK	74.00	-14.14	1.00 V	359	51.82	8.04
4	5150.00	44.56 AV	54.00	-9.44	1.00 V	359	36.52	8.04
5	*5190.00	98.94 PK			1.00 V	359	90.96	7.98
6	*5190.00	89.13 AV			1.00 V	359	81.15	7.98
7	#10380.00	59.69 PK	68.20	-8.51	1.00 V	210	43.89	15.80
8	15570.00	63.20 PK	74.00	-10.80	1.00 V	9	40.24	22.96
9	15570.00	46.35 AV	54.00	-7.65	1.00 V	9	23.39	22.96

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.

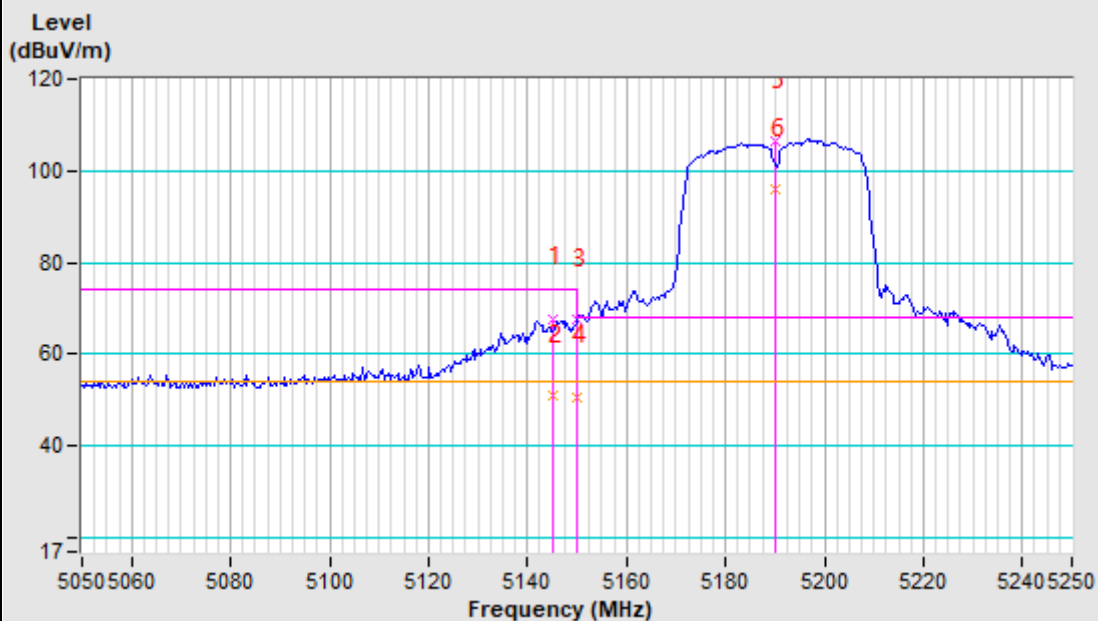


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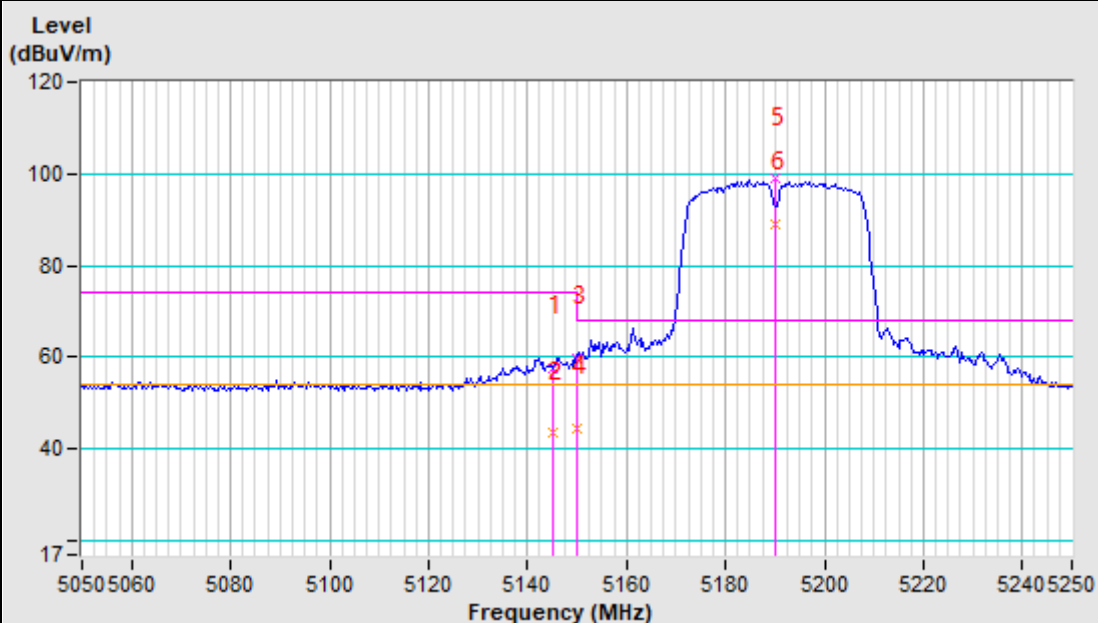
Test Report No.: RF2312WDG0147-3

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	5145.00	56.32 PK	74.00	-17.68	1.00 H	21	48.27	8.05
2	5145.00	43.25 AV	54.00	-10.75	1.00 H	21	35.20	8.05
3	5150.00	58.31 PK	74.00	-15.69	1.00 H	21	50.27	8.04
4	5150.00	43.57 AV	54.00	-10.43	1.00 H	21	35.53	8.04
5	*5230.00	107.25 PK			1.00 H	21	99.35	7.90
6	*5230.00	98.25 AV			1.00 H	21	90.35	7.90
7	#10460.00	59.25 PK	68.20	-8.95	1.00 H	2	42.78	16.47
8	15690.00	62.30 PK	74.00	-11.70	1.00 H	32	39.50	22.80
9	15690.00	46.90 AV	54.00	-7.10	1.00 H	32	24.10	22.80

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	53.00 PK	74.00	-21.00	1.00 V	21	44.95	8.05
2	5145.00	42.10 AV	54.00	-11.90	1.00 V	21	34.05	8.05
3	5150.00	53.54 PK	74.00	-20.46	1.00 V	37	45.50	8.04
4	5150.00	42.38 AV	54.00	-11.62	1.00 V	37	34.34	8.04
5	*5230.00	99.30 PK			1.00 V	37	91.40	7.90
6	*5230.00	89.97 AV			1.00 V	37	82.07	7.90
7	#10460.00	59.26 PK	68.20	-8.94	1.00 V	32	42.79	16.47
8	15690.00	63.26 PK	74.00	-10.74	1.00 V	360	40.46	22.80
9	15690.00	47.25 AV	54.00	-6.75	1.00 V	360	24.45	22.80

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.: RF2312WDG0147-3

Band 2 (5250-5350MHz): ABOVE 1GHz DATA 802.11a

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5134.00	51.94 PK	74.00	-22.06	1.00 H	178	43.87	8.07
2	5134.00	41.68 AV	54.00	-12.32	1.00 H	178	33.61	8.07
3	5150.00	51.30 PK	74.00	-22.70	1.00 H	320	43.26	8.04
4	5150.00	41.38 AV	54.00	-12.62	1.00 H	320	33.34	8.04
5	*5260.00	107.06 PK			1.00 H	178	99.21	7.85
6	*5260.00	97.34 AV			1.00 H	178	89.49	7.85
7	5350.00	52.39 PK	74.00	-21.61	1.00 H	178	44.70	7.69
8	5350.00	42.71 AV	54.00	-11.29	1.00 H	178	35.02	7.69
9	5385.00	56.06 PK	74.00	-17.94	1.00 H	360	48.44	7.62
10	5385.00	44.25 AV	54.00	-9.75	1.00 H	360	36.63	7.62
11	#10250.00	58.70 PK	68.20	-9.50	1.00 H	32	43.98	14.72
12	15780.00	63.50 PK	74.00	-10.50	1.00 H	21	40.83	22.67
13	15780.00	46.19 AV	54.00	-7.81	1.00 H	21	23.52	22.67

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5142.00	51.25 PK	74.00	-22.75	1.03 V	10	43.19	8.06
2	5142.00	41.35 AV	54.00	-12.65	1.03 V	10	33.29	8.06
3	5150.00	50.67 PK	74.00	-23.33	1.00 V	360	42.63	8.04
4	5150.00	40.30 AV	54.00	-13.70	1.00 V	360	32.26	8.04
5	*5260.00	103.98 PK			1.00 V	360	96.13	7.85
6	*5260.00	94.03 AV			1.00 V	360	86.18	7.85
7	5350.00	51.76 PK	74.00	-22.24	1.00 V	21	44.07	7.69
8	5350.00	42.10 AV	54.00	-11.90	1.00 V	21	34.41	7.69
9	5352.00	50.96 PK	74.00	-23.04	1.00 V	360	43.27	7.69
10	5352.00	41.09 AV	54.00	-12.91	1.00 V	360	33.40	7.69
11	#10250.00	58.70 PK	68.20	-9.50	1.00 V	312	43.98	14.72
12	15780.00	61.20 PK	74.00	-12.80	1.03 V	52	38.53	22.67
13	15780.00	47.06 AV	54.00	-6.94	1.03 V	52	24.39	22.67

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.: RF2312WDG0147-3

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	107.70 PK			1.00 H	21	99.93	7.77
2	*5300.00	98.32 AV			1.00 H	21	90.55	7.77
3	5350.00	56.57 PK	74.00	-17.43	1.00 H	30	48.88	7.69
4	5350.00	43.25 AV	54.00	-10.75	1.00 H	30	35.56	7.69
5	5356.00	54.69 PK	74.00	-19.31	1.00 H	185	47.01	7.68
6	5356.00	43.55 AV	54.00	-10.45	1.00 H	185	35.87	7.68
7	10600.00	54.20 PK	74.00	-19.80	1.00 H	210	37.46	16.74
8	10600.00	43.20 AV	54.00	-10.80	1.00 H	210	26.46	16.74
9	15900.00	58.25 PK	74.00	-15.75	1.00 H	210	35.74	22.51
10	15900.00	46.26 AV	54.00	-7.74	1.00 H	210	23.75	22.51

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	102.49 PK			1.00 V	214	94.72	7.77
2	*5300.00	92.34 AV			1.00 V	214	84.57	7.77
3	5350.00	53.58 PK	74.00	-20.42	1.00 V	215	45.89	7.69
4	5350.00	43.97 AV	54.00	-10.03	1.00 V	215	36.28	7.69
5	5360.00	51.40 PK	74.00	-22.60	1.00 V	321	43.73	7.67
6	5360.00	42.38 AV	54.00	-11.62	1.00 V	321	34.71	7.67
7	10600.00	53.26 PK	74.00	-20.74	1.00 V	32	36.52	16.74
8	10600.00	42.35 AV	54.00	-11.65	1.00 V	32	25.61	16.74
9	15900.00	58.69 PK	74.00	-15.31	1.00 V	27	36.18	22.51
10	15900.00	46.65 AV	54.00	-7.35	1.00 V	27	24.14	22.51

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.: RF2312WDG0147-3

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	108.41 PK			1.00 H	120	100.67	7.74
2	*5320.00	98.71 AV			1.00 H	120	90.97	7.74
3	5350.00	67.55 PK	74.00	-6.45	1.00 H	54	59.86	7.69
4	5350.00	49.14 AV	54.00	-4.86	1.00 H	54	41.45	7.69
5	5352.00	65.42 PK	74.00	-8.58	1.00 H	54	57.73	7.69
6	5352.00	48.07 AV	54.00	-5.93	1.00 H	54	40.38	7.69
7	10640.00	52.38 PK	74.00	-21.62	1.00 H	32	35.66	16.72
8	10640.00	45.30 AV	54.00	-8.70	1.00 H	32	28.58	16.72
9	15960.00	53.20 PK	74.00	-20.80	1.00 H	32	30.77	22.43
10	15960.00	42.28 AV	54.00	-11.72	1.00 H	32	19.85	22.43

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.35 PK			1.00 V	333	97.61	7.74
2	*5320.00	95.30 AV			1.00 V	333	87.56	7.74
3	5350.00	65.51 PK	74.00	-8.49	1.00 V	332	57.82	7.69
4	5350.00	47.30 AV	54.00	-6.70	1.00 V	332	39.61	7.69
5	5352.00	62.96 PK	74.00	-11.04	1.00 V	333	55.27	7.69
6	5352.00	45.26 AV	54.00	-8.74	1.00 V	333	37.57	7.69
7	10640.00	54.36 PK	74.00	-19.64	1.00 V	32	37.64	16.72
8	10640.00	43.26 AV	54.00	-10.74	1.00 V	32	26.54	16.72
9	15960.00	58.32 PK	74.00	-15.68	1.00 V	32	35.89	22.43
10	15960.00	45.32 AV	54.00	-8.68	1.00 V	32	22.89	22.43

REMARKS:

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

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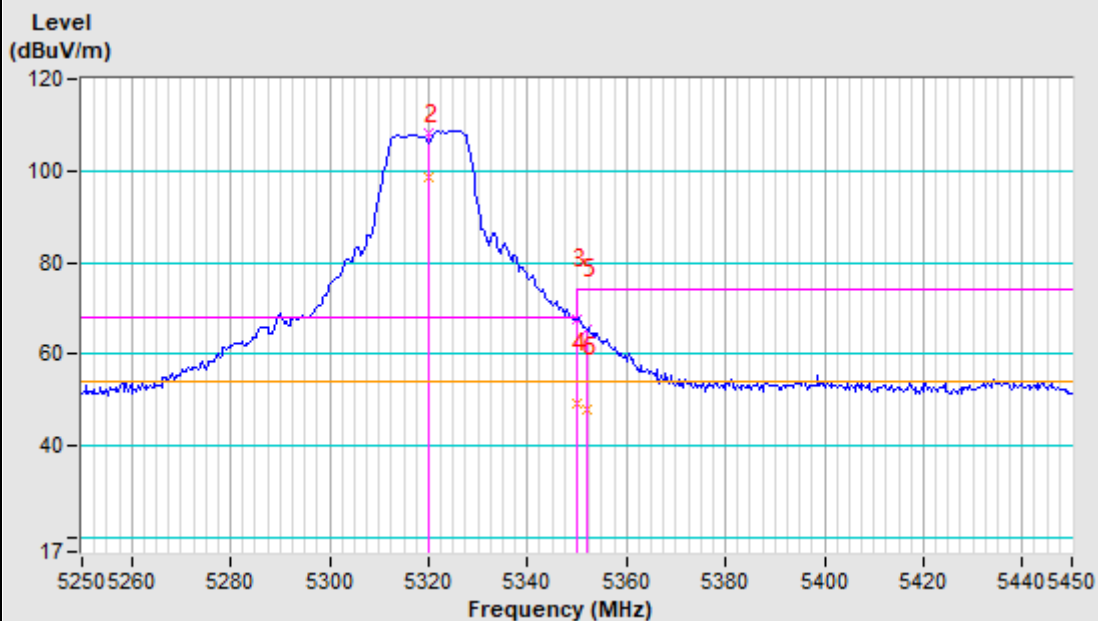


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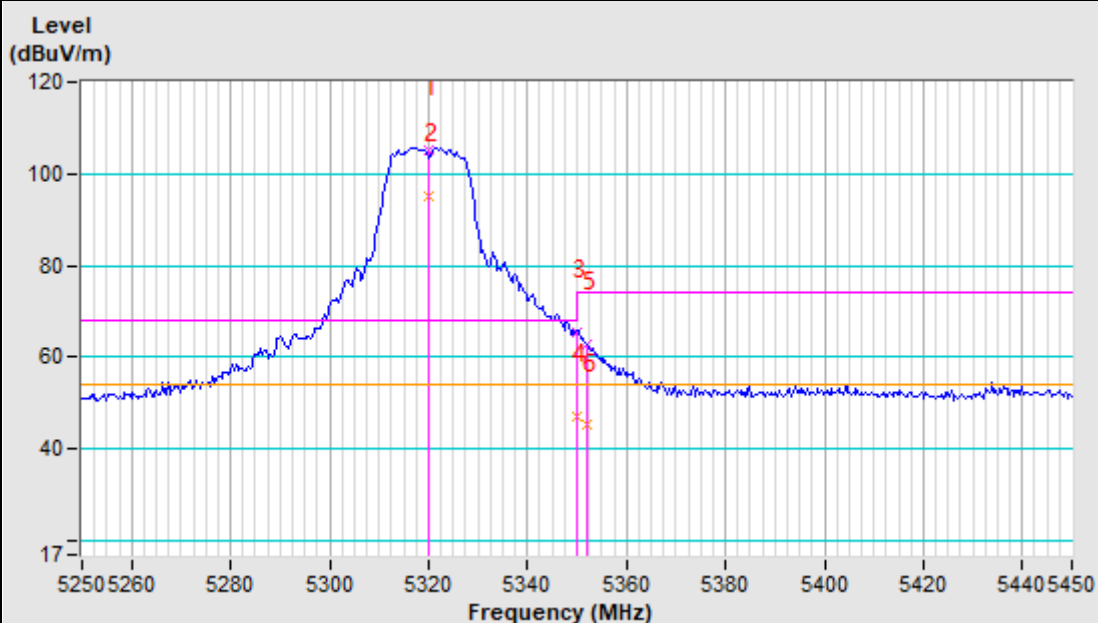
Test Report No.: RF2312WDG0147-3

Band edge Plot

5320MHz Horizontal



5320MHz Vertical





802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5138.00	51.80 PK	74.00	-22.20	1.00 H	20	43.74	8.06
2	5138.00	42.03 AV	54.00	-11.97	1.00 H	20	33.97	8.06
3	5150.00	52.48 PK	74.00	-21.52	1.00 H	20	44.44	8.04
4	5150.00	42.20 AV	54.00	-11.80	1.00 H	20	34.16	8.04
5	*5260.00	107.23 PK			1.00 H	20	99.38	7.85
6	*5260.00	97.20 AV			1.00 H	20	89.35	7.85
7	5350.00	53.22 PK	74.00	-20.78	1.00 H	20	45.53	7.69
8	5350.00	53.07 PK	74.00	-20.93	1.00 H	32	45.38	7.69
9	5350.00	42.39 AV	54.00	-11.61	1.00 H	20	34.70	7.69
10	5350.00	42.38 AV	54.00	-11.62	1.00 H	32	34.69	7.69
11	#10520.00	52.35 PK	68.20	-15.85	1.00 H	32	35.56	16.79
12	15780.00	59.30 PK	74.00	-14.70	1.00 H	20	36.63	22.67
13	15780.00	45.09 AV	54.00	-8.91	1.00 H	20	22.42	22.67

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	52.53 PK	74.00	-21.47	1.00 V	6	44.48	8.05
2	5145.00	42.10 AV	54.00	-11.90	1.00 V	6	34.05	8.05
3	5150.00	52.53 PK	74.00	-21.47	1.00 V	6	44.49	8.04
4	5150.00	41.89 AV	54.00	-12.11	1.00 V	6	33.85	8.04
5	*5260.00	104.11 PK			1.00 V	6	96.26	7.85
6	*5260.00	94.32 AV			1.00 V	6	86.47	7.85
7	5350.00	52.57 PK	74.00	-21.43	1.00 V	6	44.88	7.69
8	5350.00	42.13 AV	54.00	-11.87	1.00 V	6	34.44	7.69
9	5355.00	51.61 PK	74.00	-22.39	1.00 V	6	43.93	7.68
10	5355.00	42.38 AV	54.00	-11.62	1.00 V	6	34.70	7.68
11	#10520.00	52.30 PK	68.20	-15.90	1.00 V	210	35.51	16.79
12	15780.00	59.65 PK	74.00	-14.35	1.00 V	6	36.98	22.67
13	15780.00	45.67 AV	54.00	-8.33	1.00 V	6	23.00	22.67

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.: RF2312WDG0147-3

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	108.26 PK			1.00 H	21	100.49	7.77
2	*5300.00	98.20 AV			1.00 H	21	90.43	7.77
3	5350.00	56.32 PK	74.00	-17.68	1.00 H	21	48.63	7.69
4	5350.00	45.26 AV	54.00	-8.74	1.00 H	21	37.57	7.69
5	5358.00	54.35 PK	74.00	-19.65	1.00 H	21	46.68	7.67
6	5358.00	43.20 AV	54.00	-10.80	1.00 H	21	35.53	7.67
7	10600.00	53.26 PK	74.00	-20.74	1.00 H	32	36.52	16.74
8	10600.00	41.90 AV	54.00	-12.10	1.00 H	32	25.16	16.74
9	15900.00	65.26 PK	74.00	-8.74	1.00 H	32	42.75	22.51
10	15900.00	45.08 AV	54.00	-8.92	1.00 H	32	22.57	22.51

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	102.35 PK			1.00 V	6	94.58	7.77
2	*5300.00	92.30 AV			1.00 V	6	84.53	7.77
3	5350.00	53.59 PK	74.00	-20.41	1.00 V	3	45.90	7.69
4	5350.00	42.32 AV	54.00	-11.68	1.00 V	3	34.63	7.69
5	5361.00	51.80 PK	74.00	-22.20	1.00 V	32	44.13	7.67
6	5361.00	42.30 AV	54.00	-11.70	1.00 V	32	34.63	7.67
7	10600.00	51.32 PK	74.00	-22.68	1.05 V	6	34.58	16.74
8	10600.00	42.30 AV	54.00	-11.70	1.05 V	6	25.56	16.74
9	15900.00	57.30 PK	74.00	-16.70	1.00 V	20	34.79	22.51
10	15900.00	46.30 AV	54.00	-7.70	1.00 V	20	23.79	22.51

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.: RF2312WDG0147-3

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	109.46 PK			1.00 H	30	101.72	7.74
2	*5320.00	99.28 AV			1.00 H	30	91.54	7.74
3	5350.00	69.80 PK	74.00	-4.20	1.00 H	56	62.11	7.69
4	5350.00	49.85 AV	54.00	-4.15	1.00 H	56	42.16	7.69
5	5352.00	67.09 PK	74.00	-6.91	1.00 H	56	59.40	7.69
6	5352.00	49.45 AV	54.00	-4.55	1.00 H	56	41.76	7.69
7	10640.00	53.26 PK	74.00	-20.74	1.00 H	22	36.54	16.72
8	10640.00	42.70 AV	54.00	-11.30	1.00 H	22	25.98	16.72
9	15960.00	58.97 PK	74.00	-15.03	1.00 H	201	36.54	22.43
10	15960.00	45.08 AV	54.00	-8.92	1.00 H	201	22.65	22.43

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	107.26 PK			1.00 V	285	99.52	7.74
2	*5320.00	97.11 AV			1.00 V	285	89.37	7.74
3	5350.00	65.08 PK	74.00	-8.92	1.00 V	285	57.39	7.69
4	5350.00	48.52 AV	54.00	-5.48	1.00 V	285	40.83	7.69
5	5352.00	65.57 PK	74.00	-8.43	1.00 V	332	57.88	7.69
6	5352.00	47.05 AV	54.00	-6.95	1.00 V	332	39.36	7.69
7	10640.00	51.26 PK	74.00	-22.74	1.00 V	22	34.54	16.72
8	10640.00	41.85 AV	54.00	-12.15	1.00 V	22	25.13	16.72
9	15960.00	58.25 PK	74.00	-15.75	1.00 V	21	35.82	22.43
10	15960.00	45.10 AV	54.00	-8.90	1.00 V	21	22.67	22.43

REMARKS:

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

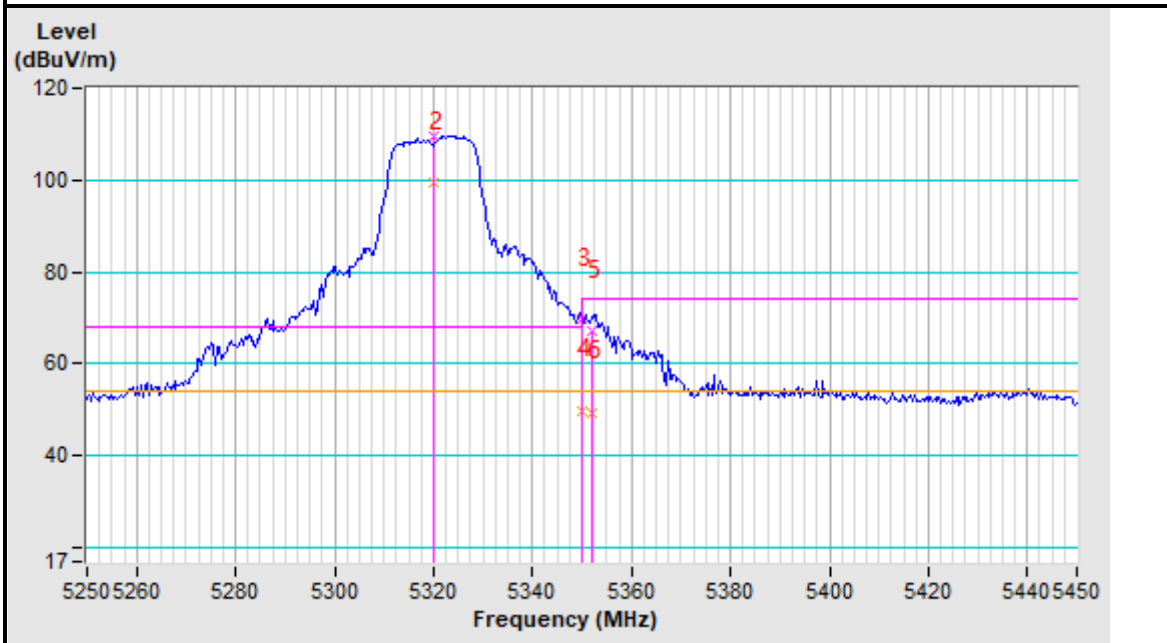


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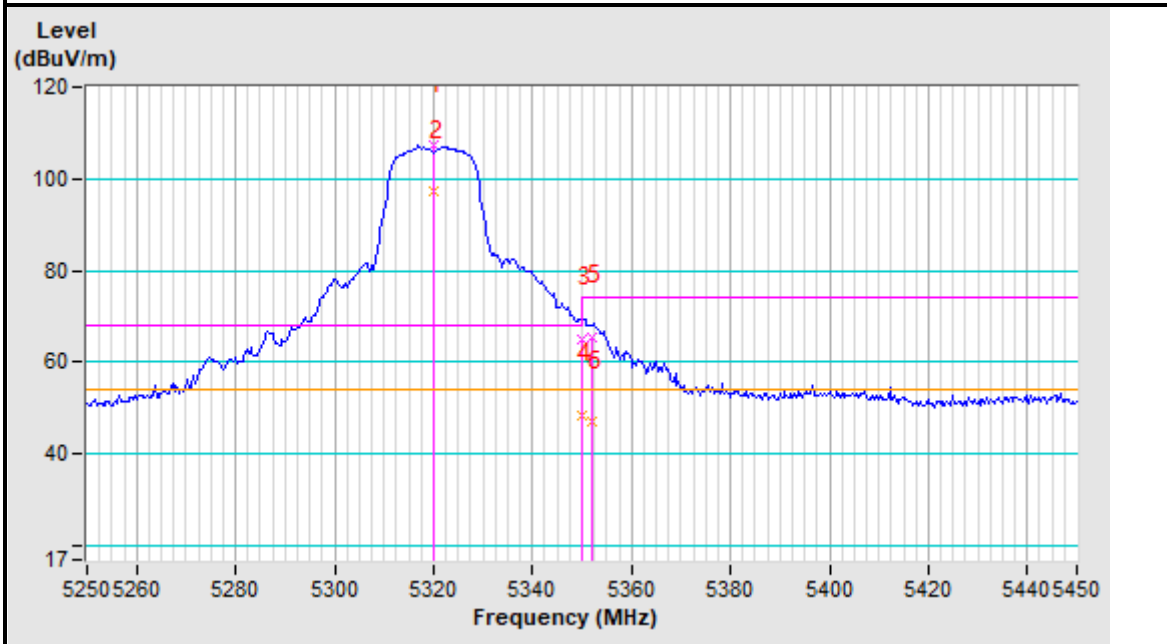
Test Report No.: RF2312WDG0147-3

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	106.26 PK			1.00 H	122	98.43	7.83
2	*5270.00	95.35 AV			1.00 H	122	87.52	7.83
3	5350.00	56.58 PK	74.00	-17.42	1.00 H	21	48.89	7.69
4	5350.00	43.50 AV	54.00	-10.50	1.00 H	21	35.81	7.69
5	5355.00	56.58 PK	74.00	-17.42	1.00 H	21	48.90	7.68
6	5355.00	42.80 AV	54.00	-11.20	1.00 H	21	35.12	7.68
7	#10540.00	51.26 PK	68.20	-16.94	1.35 H	2	34.48	16.78
8	15810.00	58.90 PK	74.00	-15.10	1.00 H	241	36.27	22.63
9	15810.00	44.20 AV	54.00	-9.80	1.00 H	241	21.57	22.63

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	102.93 PK			1.00 V	223	95.10	7.83
2	*5270.00	93.17 AV			1.00 V	223	85.34	7.83
3	5350.00	54.28 PK	74.00	-19.72	1.00 V	223	46.59	7.69
4	5350.00	43.20 AV	54.00	-10.80	1.00 V	223	35.51	7.69
5	5363.00	51.01 PK	74.00	-22.99	1.00 V	223	43.35	7.66
6	5363.00	41.20 AV	54.00	-12.80	1.00 V	223	33.54	7.66
7	#10540.00	51.20 PK	68.20	-17.00	1.00 V	32	34.42	16.78
8	15810.00	59.26 PK	74.00	-14.74	1.00 V	32	36.63	22.63
9	15810.00	45.20 AV	54.00	-8.80	1.00 V	32	22.57	22.63

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	104.48 PK			1.00 H	40	96.73	7.75
2	*5310.00	94.17 AV			1.00 H	40	86.42	7.75
3	5350.00	66.94 PK	74.00	-7.06	1.00 H	40	59.25	7.69
4	5350.00	50.25 AV	54.00	-3.75	1.00 H	40	42.56	7.69
5	5351.00	66.01 PK	74.00	-7.99	1.00 H	39	58.32	7.69
6	5351.00	50.98 AV	54.00	-3.02	1.00 H	39	43.29	7.69
7	10620.00	51.26 PK	74.00	-22.74	1.00 H	32	34.53	16.73
8	10620.00	41.27 AV	54.00	-12.73	1.00 H	32	24.54	16.73
9	15930.00	58.65 PK	74.00	-15.35	1.00 H	11	36.18	22.47
10	15930.00	45.70 AV	54.00	-8.30	1.00 H	11	23.23	22.47

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	101.23 PK			1.00 V	334	93.48	7.75
2	*5310.00	91.27 AV			1.00 V	334	83.52	7.75
3	5350.00	64.73 PK	74.00	-9.27	1.00 V	334	57.04	7.69
4	5350.00	49.24 AV	54.00	-4.76	1.00 V	334	41.55	7.69
5	5351.00	64.81 PK	74.00	-9.19	1.00 V	334	57.12	7.69
6	5351.00	48.54 AV	54.00	-5.46	1.00 V	334	40.85	7.69
7	10620.00	52.30 PK	74.00	-21.70	1.00 V	352	35.57	16.73
8	10620.00	41.20 AV	54.00	-12.80	1.00 V	352	24.47	16.73
9	15930.00	58.97 PK	74.00	-15.03	1.00 V	325	36.50	22.47
10	15930.00	46.30 AV	54.00	-7.70	1.00 V	325	23.83	22.47

REMARKS:

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

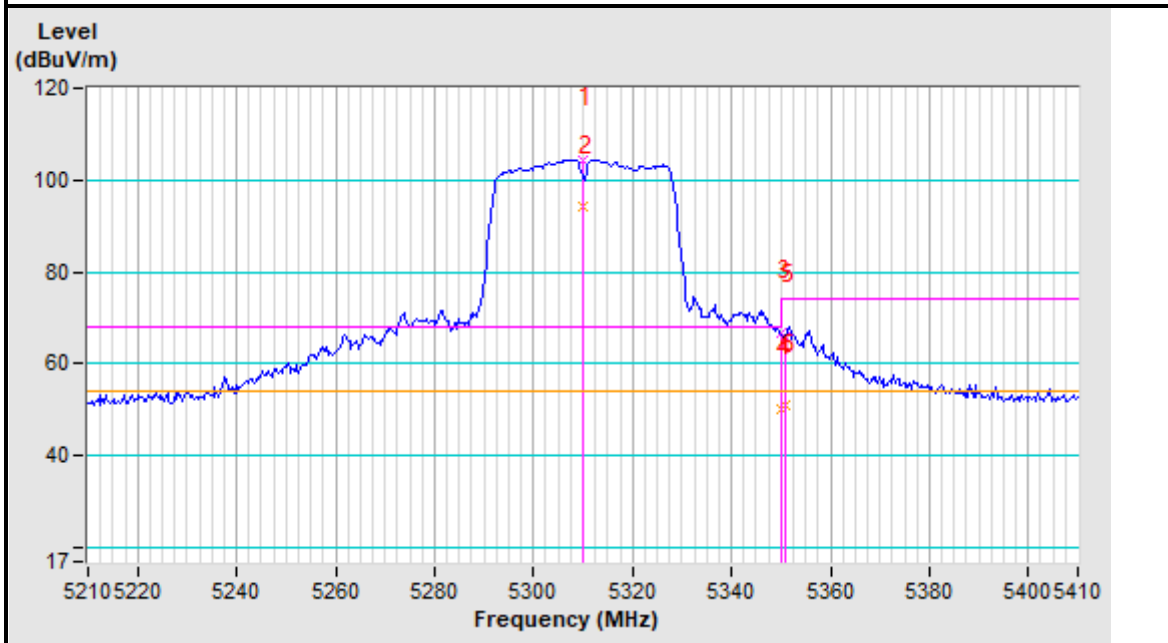


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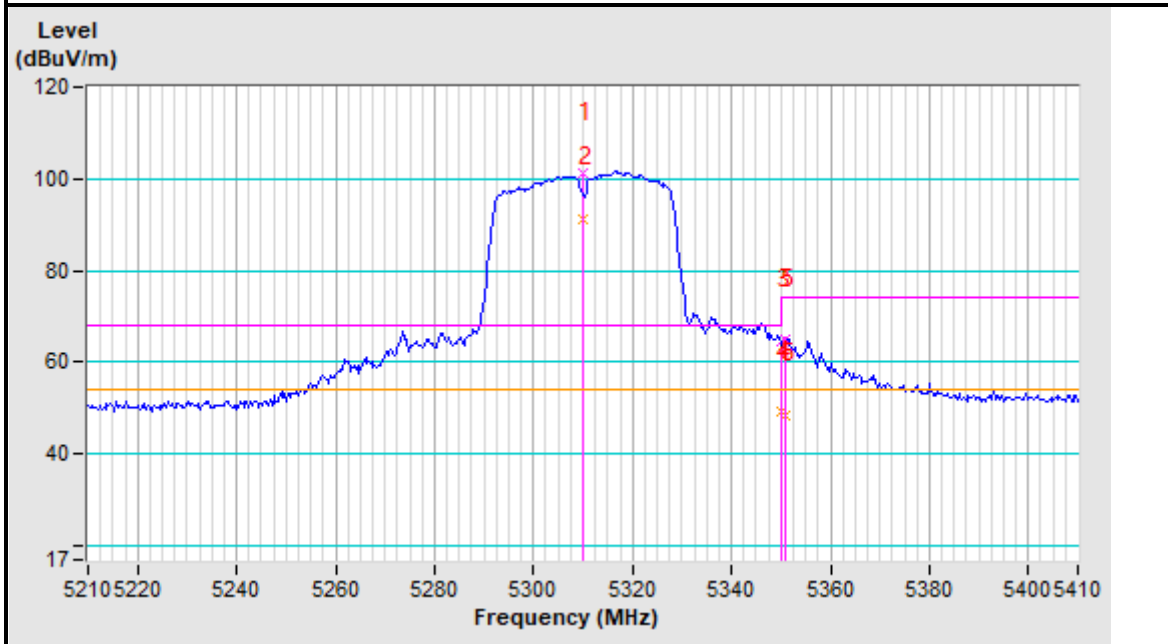
Test Report No.: RF2312WDG0147-3

Band edge Plot

5310MHz Horizontal



5310MHz Vertical





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

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5469.36	62.41 PK	68.20	-5.79	1.00 H	47	54.93	7.48
2	#5470.00	63.42 PK	68.20	-4.78	1.00 H	47	55.94	7.48
3	*5500.00	106.72 PK			1.00 H	47	99.30	7.42
4	*5500.00	97.20 AV			1.00 H	47	89.78	7.42
5	11000.00	52.10 PK	74.00	-21.90	1.00 H	32	35.59	16.51
6	11000.00	41.35 AV	54.00	-12.65	1.00 H	32	24.84	16.51
7	#16500.00	58.97 PK	68.20	-9.23	1.00 H	32	35.80	23.17

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	#5469.36	60.80 PK	68.20	-7.40	1.00 V	240	53.32	7.48
2	#5470.00	62.04 PK	68.20	-6.16	1.00 V	240	54.56	7.48
3	*5500.00	105.46 PK			1.00 V	240	98.04	7.42
4	*5500.00	95.32 AV			1.00 V	240	87.90	7.42
5	11000.00	51.37 PK	74.00	-22.63	1.00 V	32	34.86	16.51
6	11000.00	43.20 AV	54.00	-10.80	1.00 V	32	26.69	16.51
7	#16500.00	57.90 PK	68.20	-10.30	1.00 V	3	34.73	23.17

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.

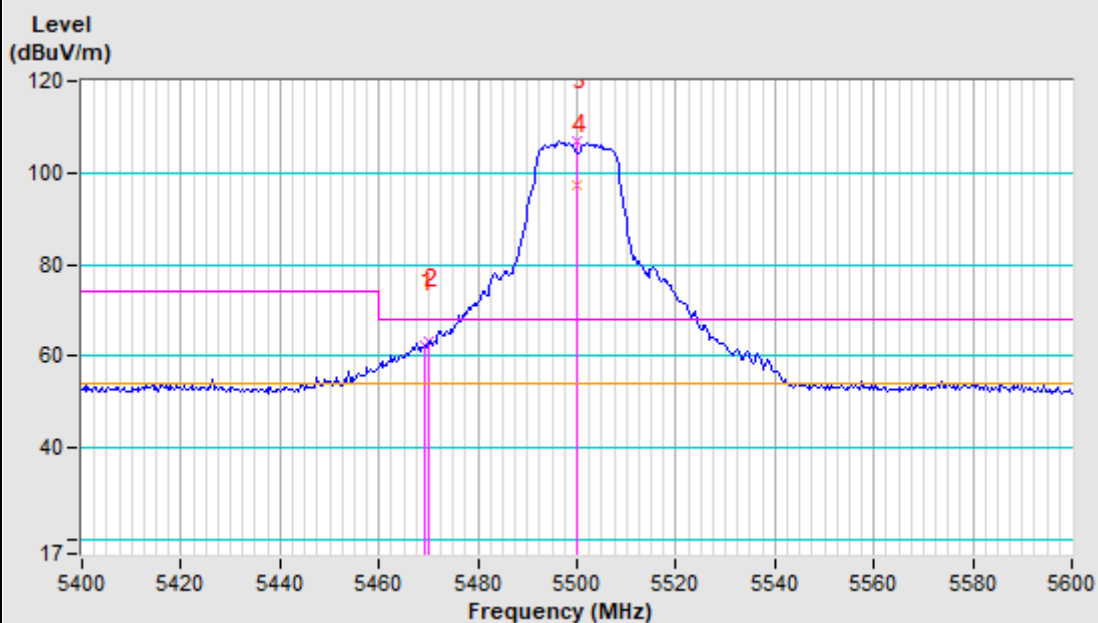


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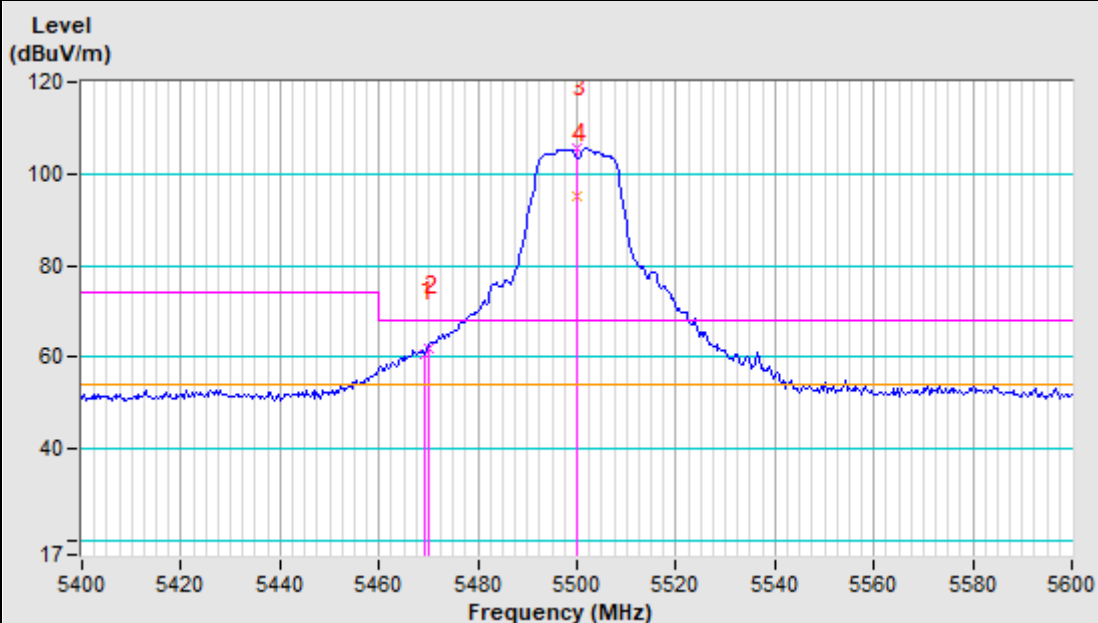
Test Report No.: RF2312WDG0147-3

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	50.67 PK	68.20	-17.53	1.00 H	31	43.19	7.48
2	*5580.00	106.52 PK			1.00 H	31	99.01	7.51
3	*5580.00	97.30 AV			1.00 H	31	89.79	7.51
4	11160.00	52.30 PK	74.00	-21.70	1.00 H	32	35.74	16.56
5	11160.00	41.80 AV	54.00	-12.20	1.00 H	32	25.24	16.56
6	#16740.00	55.90 PK	68.20	-12.30	1.00 H	35	32.07	23.83

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	51.86 PK	68.20	-16.34	1.00 V	23	44.38	7.48
2	*5580.00	106.11 PK			1.00 V	23	98.60	7.51
3	*5580.00	95.97 AV			1.00 V	23	88.46	7.51
4	11160.00	54.20 PK	74.00	-19.80	1.00 V	23	37.64	16.56
5	11160.00	42.36 AV	54.00	-11.64	1.00 V	23	25.80	16.56
6	#16740.00	57.60 PK	68.20	-10.60	1.00 V	32	33.77	23.83

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.: RF2312WDG0147-3

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	109.28 PK			1.00 H	32	101.65	7.63
2	#5700.00	99.32 AV			1.00 H	32	91.69	7.63
3	*5725.00	64.89 PK	68.20	-3.31	1.00 H	174	57.24	7.65
4	*5726.92	63.88 PK	68.20	-4.32	1.00 H	0	56.23	7.65
5	11400.00	55.32 PK	74.00	-18.68	1.02 H	102	38.71	16.61
6	11400.00	43.20 AV	54.00	-10.80	1.02 H	102	26.59	16.61
7	#17100.00	58.20 PK	68.20	-10.00	1.03 H	2	33.74	24.46

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5700.00	102.66 PK			1.00 V	214	95.03	7.63
2	#5700.00	93.21 AV			1.00 V	0	85.58	7.63
3	*5725.00	58.76 PK	68.20	-9.44	1.00 V	0	51.11	7.65
4	*5729.49	55.19 PK	68.20	-13.01	1.00 V	0	47.54	7.65
5	11400.00	52.94 PK	74.00	-21.06	1.00 V	2	36.33	16.61
6	11400.00	42.70 AV	54.00	-11.30	1.00 V	2	26.09	16.61
7	#17100.00	57.38 PK	68.20	-10.82	1.00 V	22	32.92	24.46

REMARKS:

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

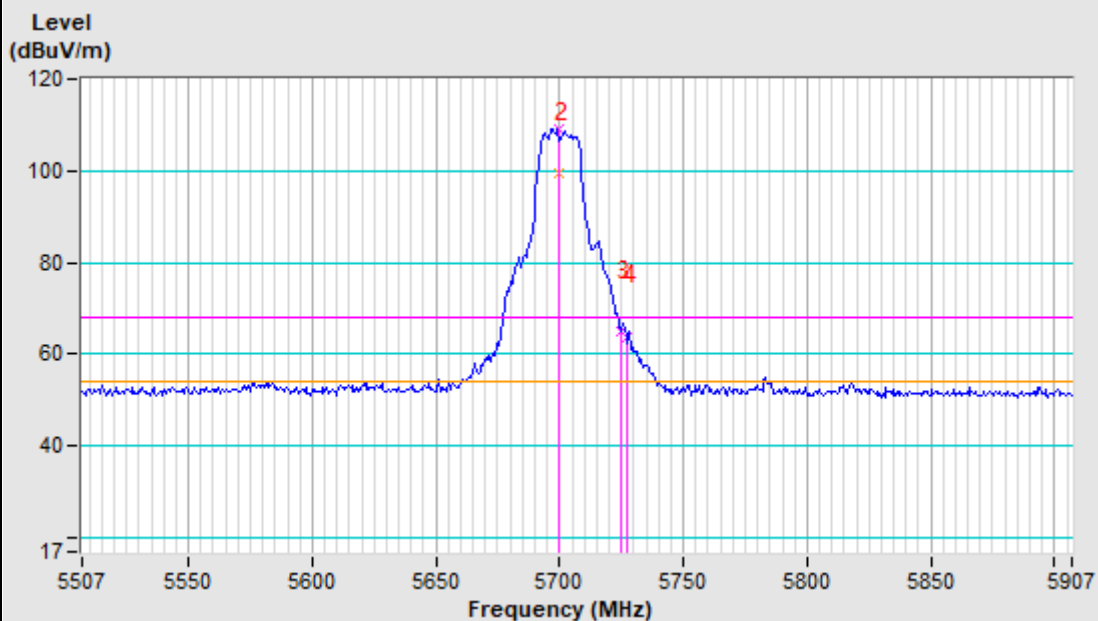


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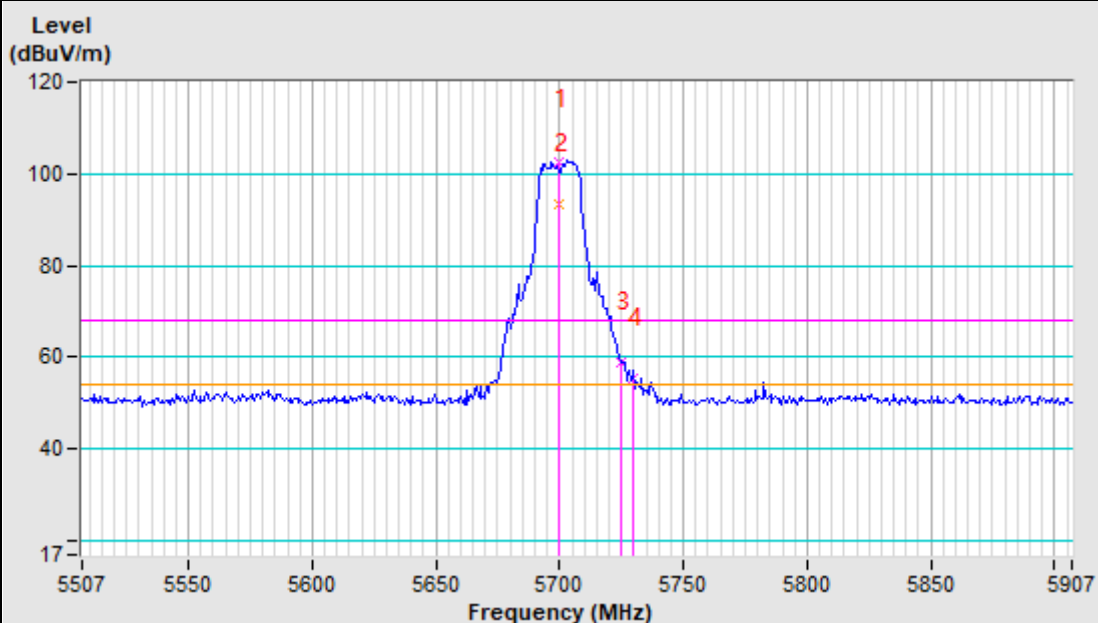
Test Report No.: RF2312WDG0147-3

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





802.11n (20MHz)

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

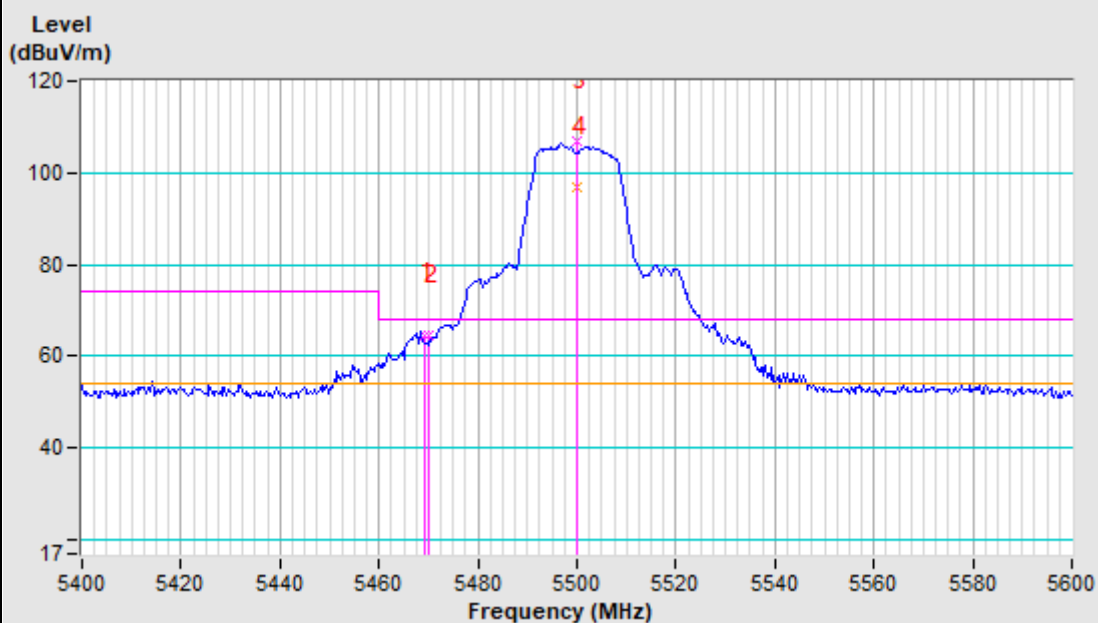
ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5469.04	64.73 PK	68.20	-3.47	1.00 H	50	57.25	7.48
2	#5470.00	64.39 PK	68.20	-3.81	1.00 H	59	56.91	7.48
3	*5500.00	106.69 PK			1.00 H	69	99.27	7.42
4	*5500.00	96.81 AV			1.00 H	60	89.39	7.42
5	11000.00	52.39 PK	74.00	-21.61	1.00 H	2	35.88	16.51
6	11000.00	41.00 AV	54.00	-13.00	1.00 H	2	24.49	16.51
7	#16500.00	57.89 PK	68.20	-10.31	1.33 H	5	34.72	23.17
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	#5469.04	62.76 PK	68.20	-5.44	1.00 V	15	55.28	7.48
2	#5470.00	62.99 PK	68.20	-5.21	1.00 V	50	55.51	7.48
3	*5500.00	104.34 PK			1.00 V	55	96.92	7.42
4	*5500.00	94.03 AV			1.00 V	90	86.61	7.42
5	11000.00	53.26 PK	74.00	-20.74	1.00 V	65	36.75	16.51
6	11000.00	43.20 AV	54.00	-10.80	1.00 V	65	26.69	16.51
7	#16500.00	58.91 PK	68.20	-9.29	1.00 V	52	35.74	23.17

REMARKS:

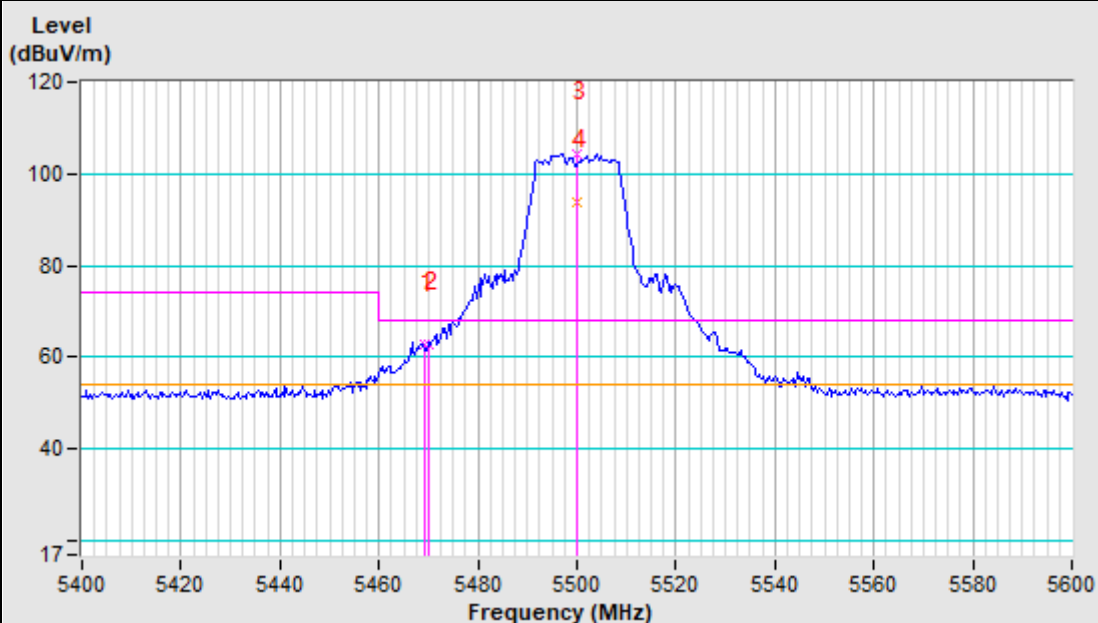
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.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

Band edge Plot

5500MHz Horizontal



5500MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	49.49 PK	68.20	-18.71	1.00 H	0	42.01	7.48
2	*5580.00	107.55 PK			1.00 H	21	100.04	7.51
3	*5580.00	97.40 AV			1.00 H	21	89.89	7.51
4	11160.00	52.30 PK	74.00	-21.70	1.00 H	10	35.74	16.56
5	11160.00	42.58 AV	54.00	-11.42	1.00 H	10	26.02	16.56
6	#16740.00	58.90 PK	68.20	-9.30	1.00 H	62	35.07	23.83

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	51.31 PK	68.20	-16.89	1.00 V	0	43.83	7.48
2	*5580.00	106.99 PK			1.00 V	21	99.48	7.51
3	*5580.00	97.56 AV			1.00 V	21	90.05	7.51
4	11160.00	53.26 PK	74.00	-20.74	1.00 V	10	36.70	16.56
5	11160.00	42.19 AV	54.00	-11.81	1.00 V	10	25.63	16.56
6	#16740.00	59.68 PK	68.20	-8.52	1.00 V	32	35.85	23.83

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 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	110.28 PK			1.00 H	62	102.65	7.63
2	*5700.00	99.72 AV			1.00 H	62	92.09	7.63
3	#5725.00	64.89 PK	68.20	-3.31	1.00 H	174	57.24	7.65
4	#5726.92	61.88 PK	68.20	-6.32	1.00 H	35	54.23	7.65
5	11400.00	51.90 PK	74.00	-22.10	1.00 H	39	35.29	16.61
6	11400.00	42.38 AV	54.00	-11.62	1.00 H	39	25.77	16.61
7	#17100.00	59.30 PK	68.20	-8.90	1.00 H	35	34.84	24.46
ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	103.76 PK			1.00 V	214	96.13	7.63
2	*5700.00	94.91 AV			1.00 V	32	87.28	7.63
3	#5725.00	58.90 PK	68.20	-9.30	1.00 V	84	51.25	7.65
4	#5729.49	55.19 PK	68.20	-13.01	1.00 V	35	47.54	7.65
5	11400.00	51.20 PK	74.00	-22.80	1.00 V	32	34.59	16.61
6	11400.00	42.10 AV	54.00	-11.90	1.00 V	32	25.49	16.61
7	#17100.00	61.26 PK	68.20	-6.94	1.00 V	3	36.80	24.46

REMARKS:

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

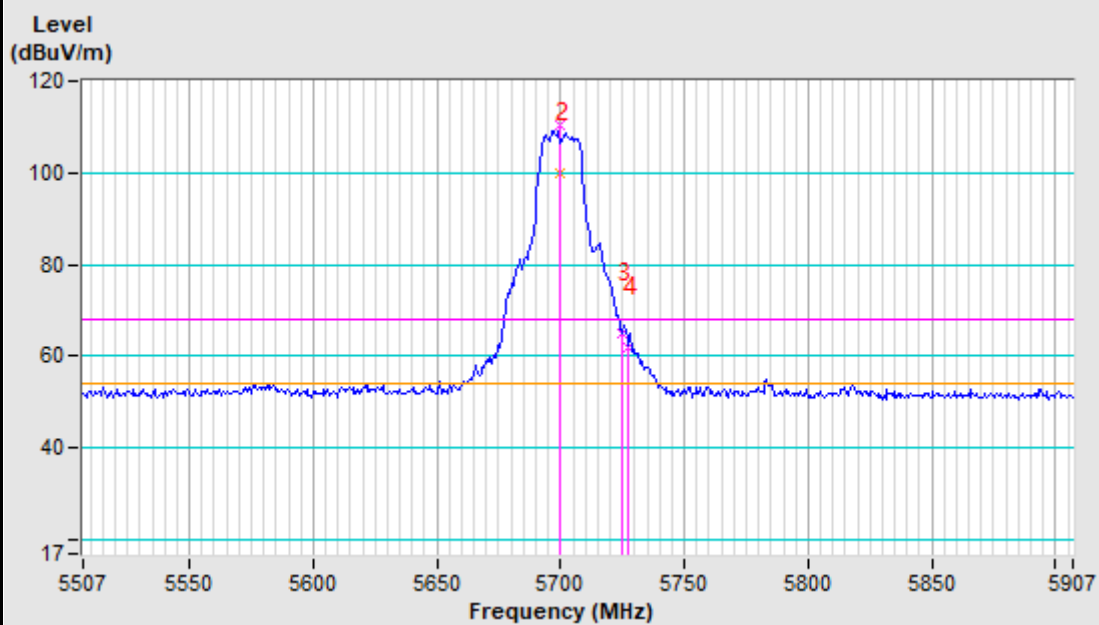


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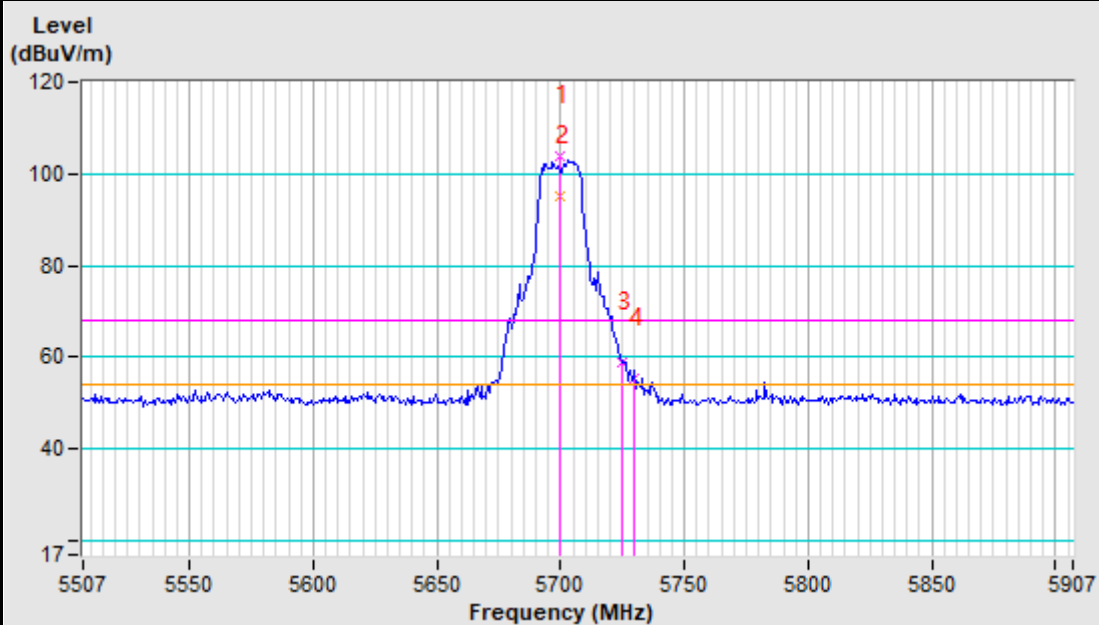
Test Report No.: RF2312WDG0147-3

Band edge Plot

5700MHz Horizontal



5700MHz 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	#5467.12	64.33 PK	68.20	-3.87	1.00 H	0	56.85	7.48
2	#5470.00	65.20 PK	68.20	-3.00	1.00 H	0	57.72	7.48
3	*5510.00	102.21 PK			1.00 H	3	94.78	7.43
4	*5510.00	92.30 AV			1.00 H	3	84.87	7.43
5	11020.00	53.60 PK	74.00	-20.40	1.03 H	59	37.09	16.51
6	11020.00	41.20 AV	54.00	-12.80	1.03 H	59	24.69	16.51
7	#16630.00	57.70 PK	68.20	-10.50	1.03 H	5	34.17	23.53

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5466.15	64.53 PK	68.20	-3.67	1.00 V	0	57.05	7.48
2	#5470.00	64.14 PK	68.20	-4.06	1.00 V	0	56.66	7.48
3	*5510.00	100.52 PK			1.00 V	21	93.09	7.43
4	*5510.00	92.30 AV			1.00 V	21	84.87	7.43
5	11020.00	54.26 PK	74.00	-19.74	1.00 V	62	37.75	16.51
6	11020.00	43.60 AV	54.00	-10.40	1.00 V	62	27.09	16.51
7	#16530.00	59.20 PK	68.20	-9.00	1.00 V	32	35.95	23.25

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.

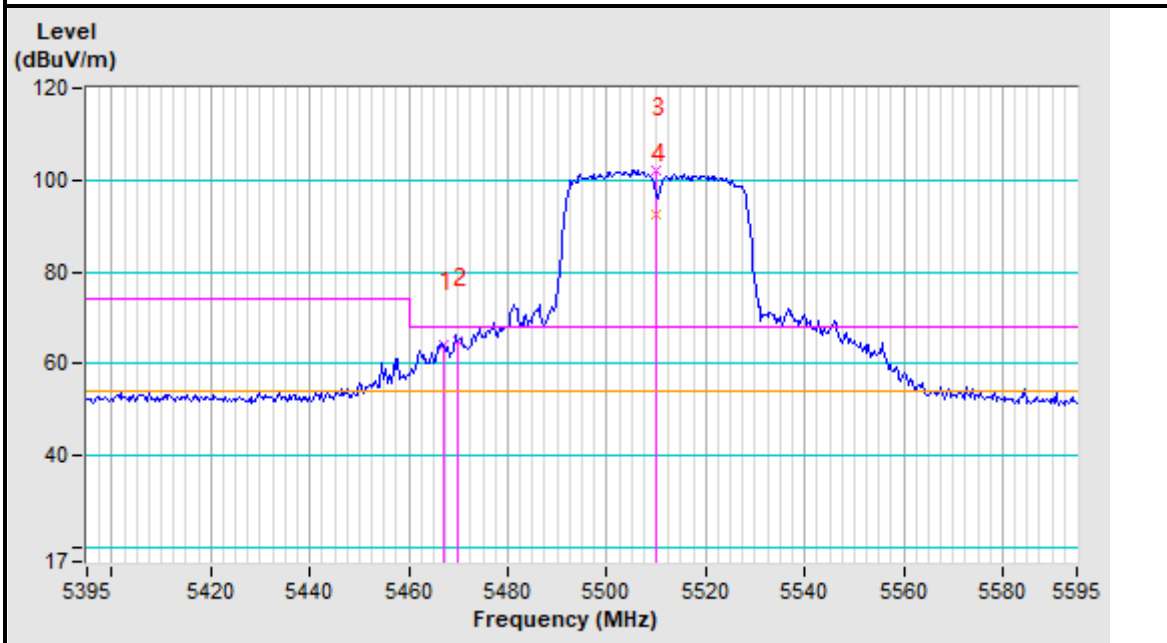


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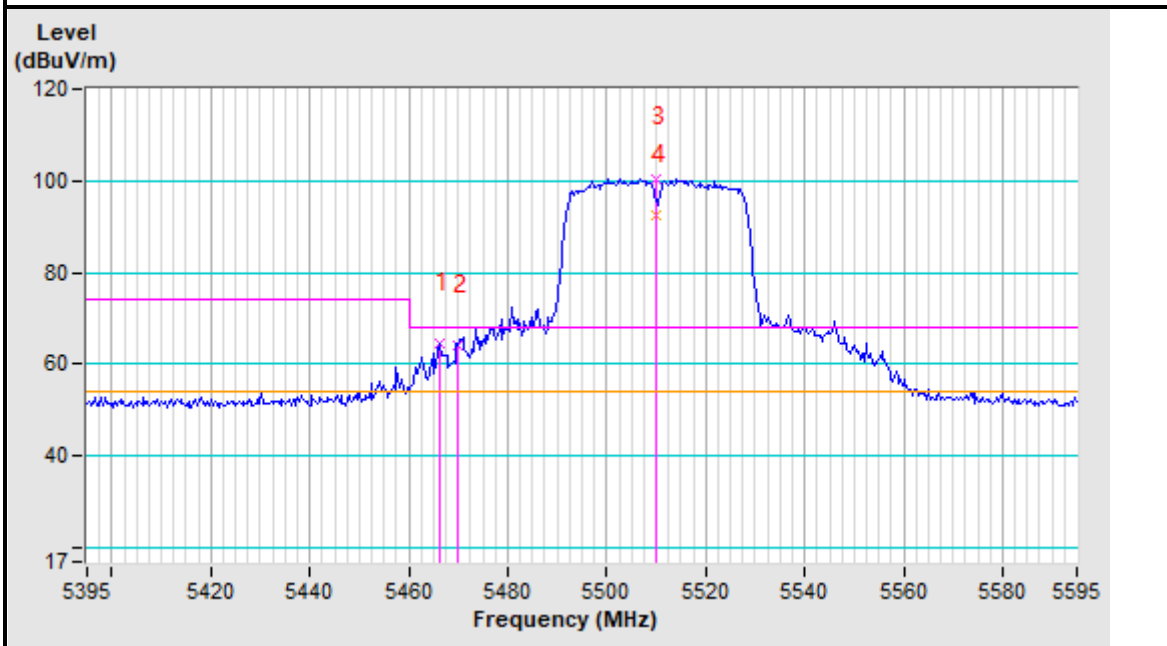
Test Report No.: RF2312WDG0147-3

Band edge Plot

5510MHz Horizontal



5510MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	55.81 PK	68.20	-12.39	1.00 H	32	48.33	7.48
2	*5550.00	105.14 PK			1.00 H	22	97.67	7.47
3	*5550.00	95.30 AV			1.00 H	22	87.83	7.47
4	11100.00	51.90 PK	74.00	-22.10	1.00 H	0	35.36	16.54
5	11100.00	42.18 AV	54.00	-11.82	1.00 H	0	25.64	16.54
6	#16650.00	58.91 PK	68.20	-9.29	1.00 H	32	35.32	23.59

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	53.44 PK	68.20	-14.76	1.00 V	32	45.96	7.48
2	*5550.00	103.14 PK			1.00 V	332	95.67	7.47
3	*5550.00	93.25 AV			1.00 V	332	85.78	7.47
4	11100.00	53.20 PK	74.00	-20.80	1.00 V	101	36.66	16.54
5	11100.00	43.20 AV	54.00	-10.80	1.00 V	101	26.66	16.54
6	#16650.00	57.39 PK	68.20	-10.81	1.35 V	65	33.80	23.59

REMARKS:

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



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Test Report No.: RF2312WDG0147-3

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	105.58 PK			1.00 H	35	97.99	7.59
2	*5670.00	96.18 AV			1.00 H	35	88.59	7.59
3	#5725.00	63.44 PK	68.20	-4.76	1.00 H	0	55.79	7.65
4	#5728.85	62.23 PK	68.20	-5.97	1.00 H	0	54.58	7.65
5	11340.00	52.60 PK	74.00	-21.40	1.00 H	2	36.01	16.59
6	11340.00	42.10 AV	54.00	-11.90	1.00 H	2	25.51	16.59
7	#17010.00	57.90 PK	68.20	-10.30	1.00 H	360	33.35	24.55

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

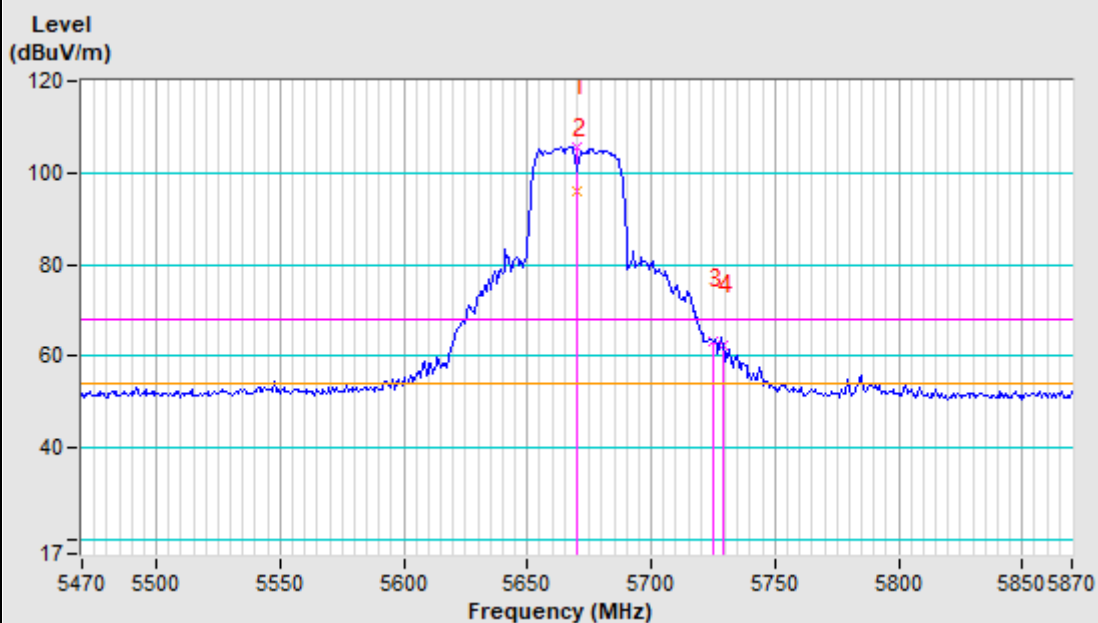
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	102.28 PK			1.00 V	54	94.69	7.59
2	*5670.00	92.20 AV			1.00 V	54	84.61	7.59
3	#5725.00	59.54 PK	68.20	-8.66	1.00 V	2	51.89	7.65
4	#5728.21	57.42 PK	68.20	-10.78	1.00 V	0	49.77	7.65
5	11340.00	53.26 PK	74.00	-20.74	1.00 V	32	36.67	16.59
6	11340.00	42.91 AV	54.00	-11.09	1.00 V	32	26.32	16.59
7	#17010.00	58.10 PK	68.20	-10.10	1.00 V	5	33.55	24.55

REMARKS:

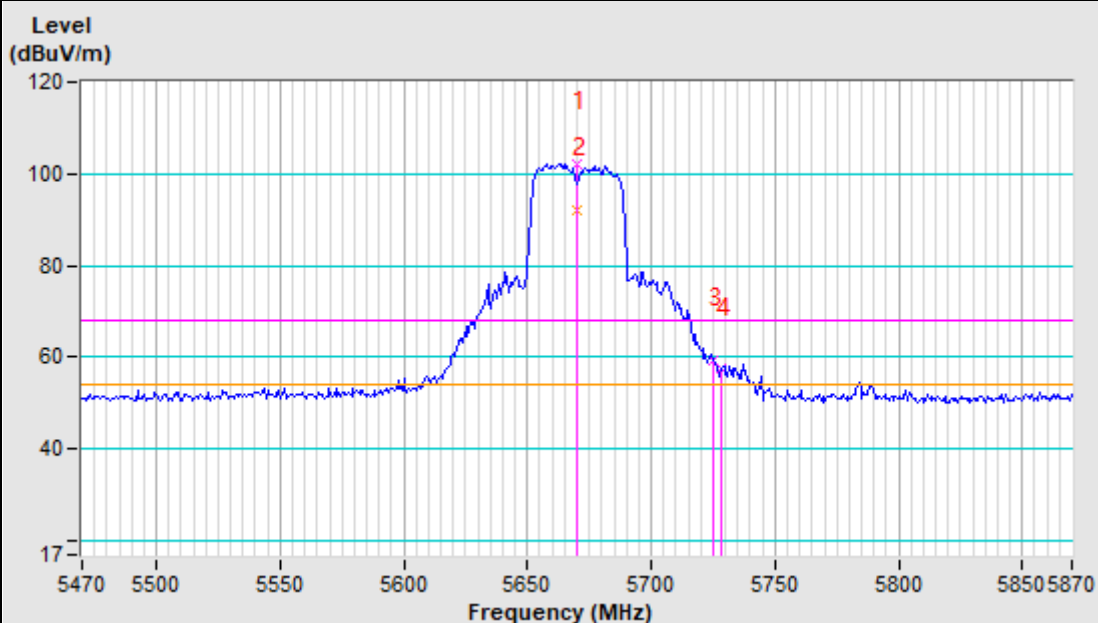
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.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

Band edge Plot

5670MHz Horizontal



5670MHz Vertical





Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5650.96	51.14 PK	68.91	-17.77	1.00 H	0	43.56	7.58
2	#5725.00	76.20 PK	122.20	-46.00	1.00 H	0	68.55	7.65
3	*5745.00	109.23 PK			1.00 H	1	101.56	7.67
4	*5745.00	99.18 AV			1.00 H	1	91.51	7.67
5	#5862.86	52.74 PK	108.60	-55.86	1.00 H	0	44.95	7.79
6	11490.00	53.26 PK	74.00	-20.74	1.00 H	1	36.62	16.64
7	11490.00	41.38 AV	54.00	-12.62	1.00 H	1	24.74	16.64
8	#17235.00	57.32 PK	68.20	-10.88	1.00 H	18	33.00	24.32

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5724.16	69.92 PK	120.28	-50.36	1.00 V	0	62.27	7.65
2	#5725.00	72.38 PK	122.20	-49.82	1.00 V	0	64.73	7.65
3	*5745.00	107.49 PK			1.00 V	3	99.82	7.67
4	*5745.00	97.50 AV			1.00 V	3	89.83	7.67
5	#5939.18	49.47 PK	68.20	-18.73	1.00 V	0	41.61	7.86
6	11490.00	51.70 PK	74.00	-22.30	1.00 V	35	35.06	16.64
7	11490.00	43.20 AV	54.00	-10.80	1.00 V	35	26.56	16.64
8	#17235.00	56.30 PK	68.20	-11.90	1.00 V	5	31.98	24.32

REMARKS:

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

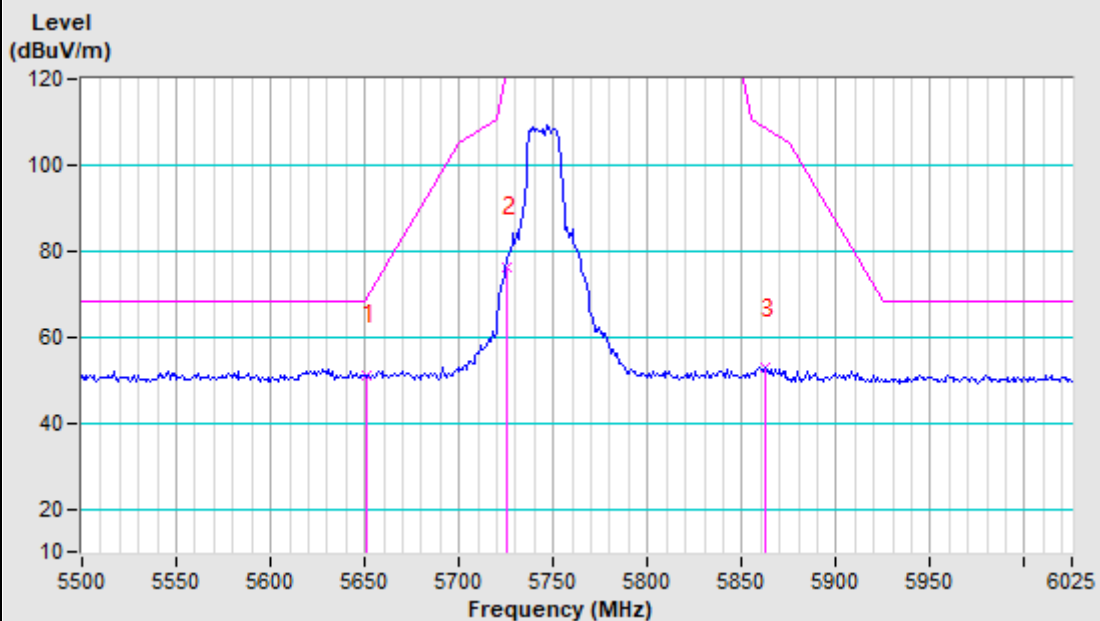


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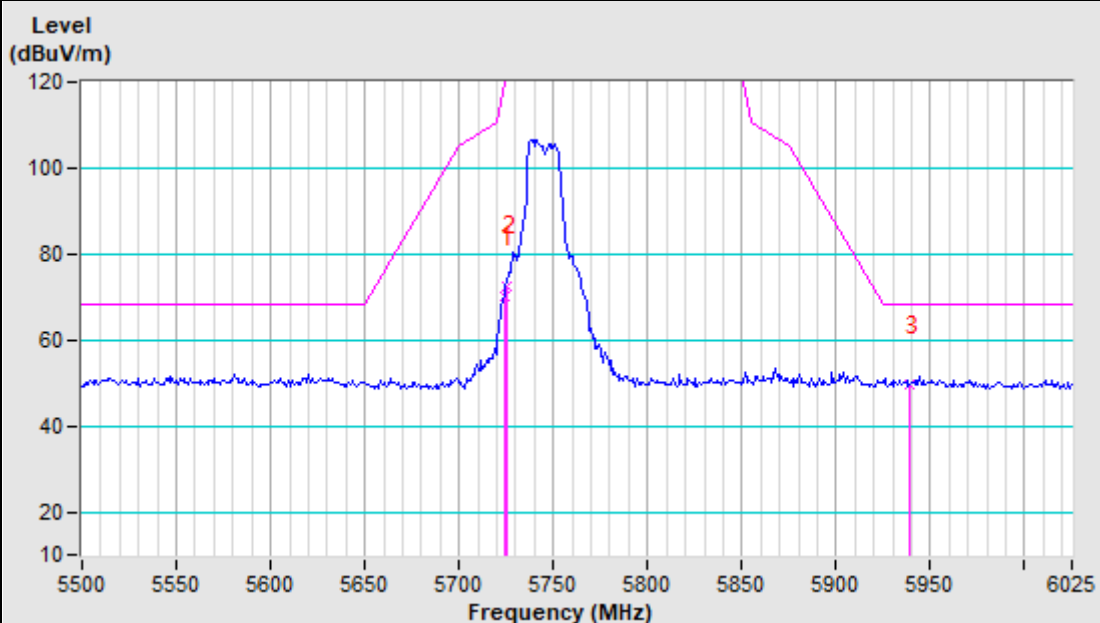
Test Report No.: RF2312WDG0147-3

Band edge Plot

5745MHz Horizontal



5745MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	#5658.53	51.06 PK	74.54	-23.48	1.00 H	10	43.48	7.58
2	*5785.00	106.09 PK			1.00 H	3	98.37	7.72
3	*5785.00	96.75 AV			1.00 H	3	89.03	7.72
4	#5855.05	50.60 PK	110.79	-60.19	1.00 H	245	42.81	7.79
5	#5944.23	51.10 PK	68.20	-17.10	1.00 H	328	43.22	7.88
6	11570.00	50.35 PK	74.00	-23.65	1.00 H	52	33.72	16.63
7	11570.00	41.20 AV	54.00	-12.80	1.00 H	52	24.57	16.63
8	#17356.00	54.69 PK	68.20	-13.51	1.00 H	5	30.49	24.20

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5650.96	50.21 PK	68.91	-18.70	1.00 V	15	42.63	7.58
2	#5723.32	49.21 PK	118.36	-69.15	1.00 V	15	41.56	7.65
3	*5785.00	108.11 PK			1.00 V	21	100.39	7.72
4	*5785.00	98.21 AV			1.00 V	21	90.49	7.72
5	#5906.37	51.37 PK	81.95	-30.58	1.00 V	26	43.53	7.84
6	11570.00	52.10 PK	74.00	-21.90	1.00 V	22	35.47	16.63
7	11570.00	41.35 AV	54.00	-12.65	1.00 V	22	24.72	16.63
8	#17355.00	55.20 PK	68.20	-13.00	1.00 V	35	31.00	24.20

REMARKS:

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

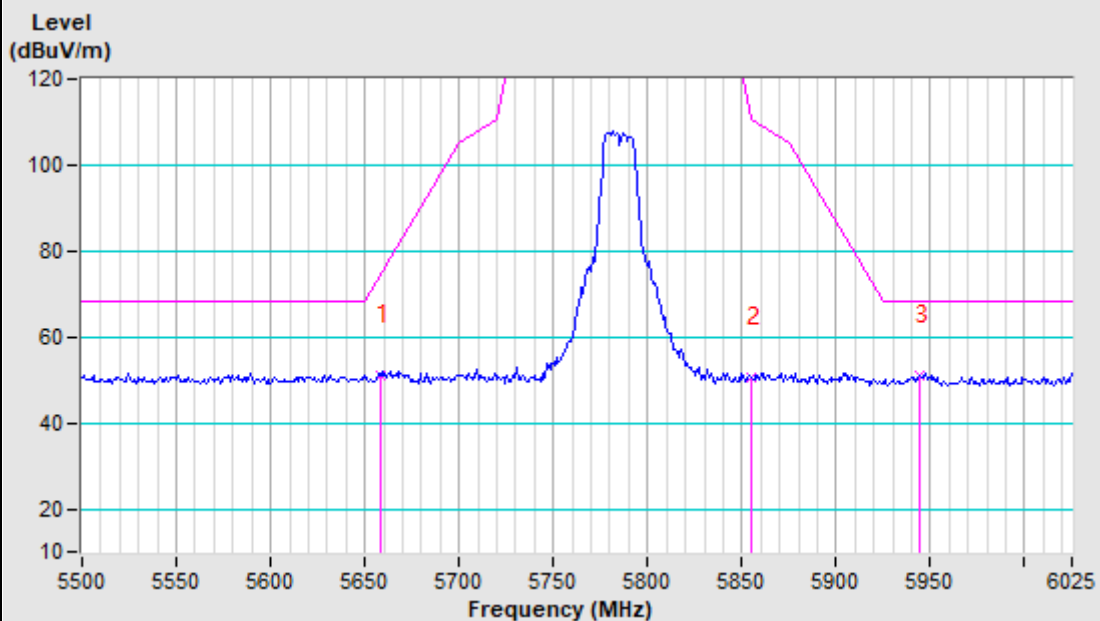


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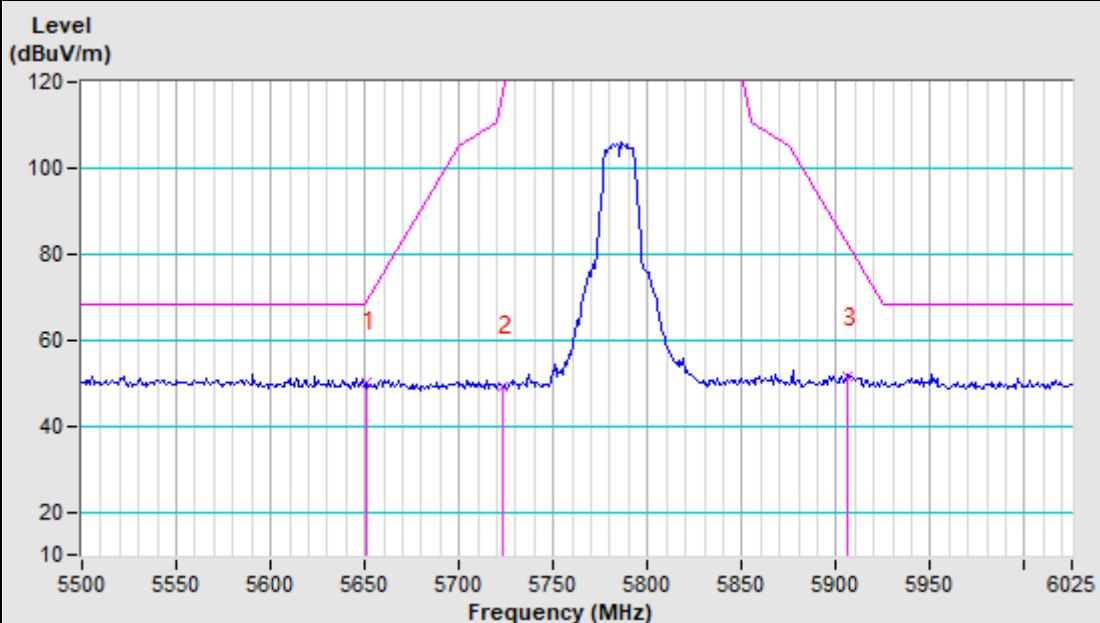
Test Report No.: RF2312WDG0147-3

Band edge Plot

5785MHz Horizontal



5785MHz Vertical





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VERITAS**

Test Report No.: RF2312WDG0147-3

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	#5698.92	52.57 PK	104.40	-51.83	1.00 H	0	44.94	7.63
2	#5825.00	109.78 PK			1.00 H	21	102.03	7.75
3	*5825.00	98.64 AV			1.00 H	21	90.89	7.75
4	*5850.00	61.67 PK	122.20	-60.53	1.00 H	0	53.90	7.77
5	#5942.55	50.81 PK	68.20	-17.39	1.00 H	0	42.94	7.87
6	11650.00	52.54 PK	74.00	-21.46	1.00 H	1	35.93	16.61
7	11650.00	41.37 AV	54.00	-12.63	1.00 H	1	24.76	16.61
8	#17475.00	55.20 PK	68.20	-13.00	1.00 H	32	31.11	24.09

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5712.38	51.98 PK	108.67	-56.69	1.00 V	0	44.35	7.63
2	*5825.00	105.51 PK			1.00 V	3	97.76	7.75
3	*5825.00	96.20 AV			1.00 V	3	88.45	7.75
4	#5850.00	62.72 PK	122.20	-59.48	1.00 V	0	54.95	7.77
5	#5937.50	52.57 PK	68.20	-15.63	1.00 V	0	44.71	7.86
6	11650.00	52.40 PK	74.00	-21.60	1.03 V	52	35.79	16.61
7	11650.00	41.08 AV	54.00	-12.92	1.03 V	52	24.47	16.61
8	#17475.00	54.79 PK	68.20	-13.41	1.35 V	52	30.70	24.09

REMARKS:

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

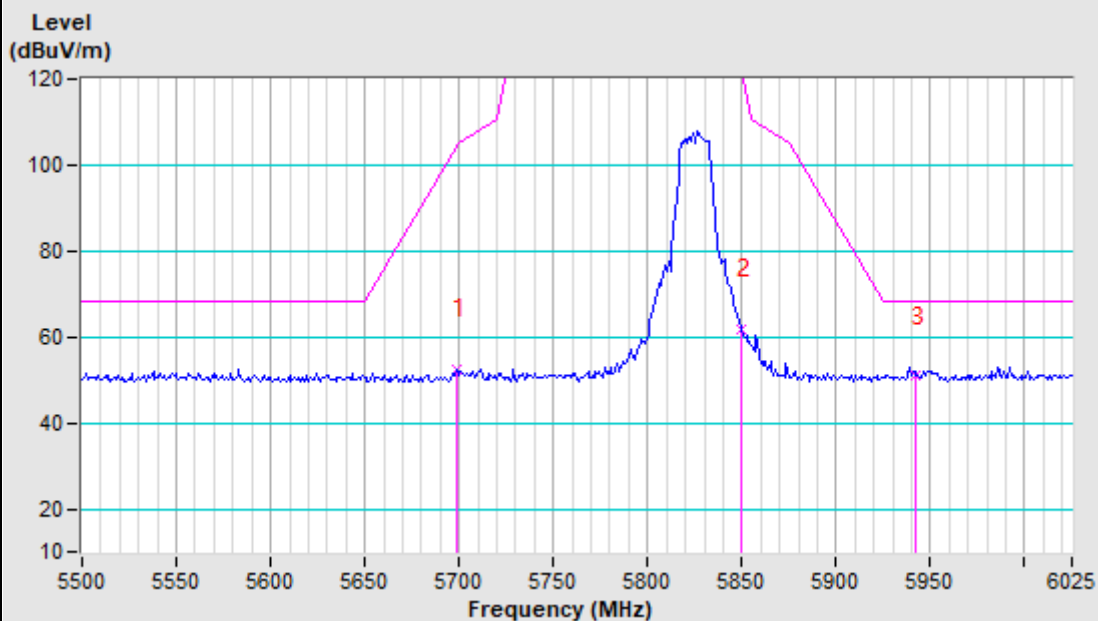


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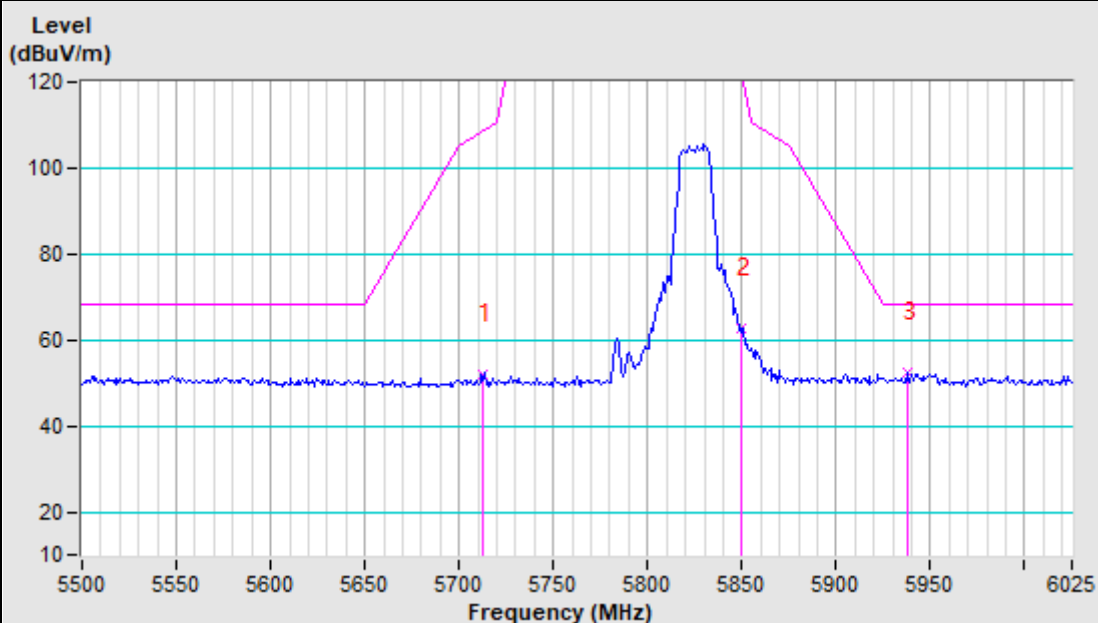
Test Report No.: RF2312WDG0147-3

Band edge Plot

5825MHz Horizontal



5825MHz Vertical



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	#5624.04	52.67 PK	68.20	-15.53	1.00 H	0	45.13	7.54
2	#5725.00	76.28 PK	122.20	-45.92	1.00 H	107	68.63	7.65
3	*5745.00	108.11 PK			1.00 H	3	100.44	7.67
4	*5745.00	97.68 AV			1.00 H	3	90.01	7.67
5	#5860.10	52.38 PK	109.37	-56.99	1.00 H	0	44.59	7.79
6	11490.00	53.20 PK	74.00	-20.80	1.00 H	32	36.56	16.64
7	11490.00	41.28 AV	54.00	-12.72	1.00 H	32	24.64	16.64
8	#17235.00	53.98 PK	68.20	-14.22	1.35 H	2	29.66	24.32

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5723.32	73.60 PK	118.36	-44.76	1.00 V	0	65.95	7.65
2	#5725.00	73.18 PK	122.20	-49.02	1.00 V	102	65.53	7.65
3	*5745.00	106.58 PK			1.00 V	40	98.91	7.67
4	*5745.00	97.16 AV			1.00 V	40	89.49	7.67
5	#5873.56	52.91 PK	105.60	-52.69	1.00 V	0	45.11	7.80
6	11490.00	51.23 PK	74.00	-22.77	1.00 V	32	34.59	16.64
7	11490.00	41.38 AV	54.00	-12.62	1.00 V	32	24.74	16.64
8	#17235.00	56.30 PK	68.20	-11.90	1.26 V	55	31.98	24.32

REMARKS:

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

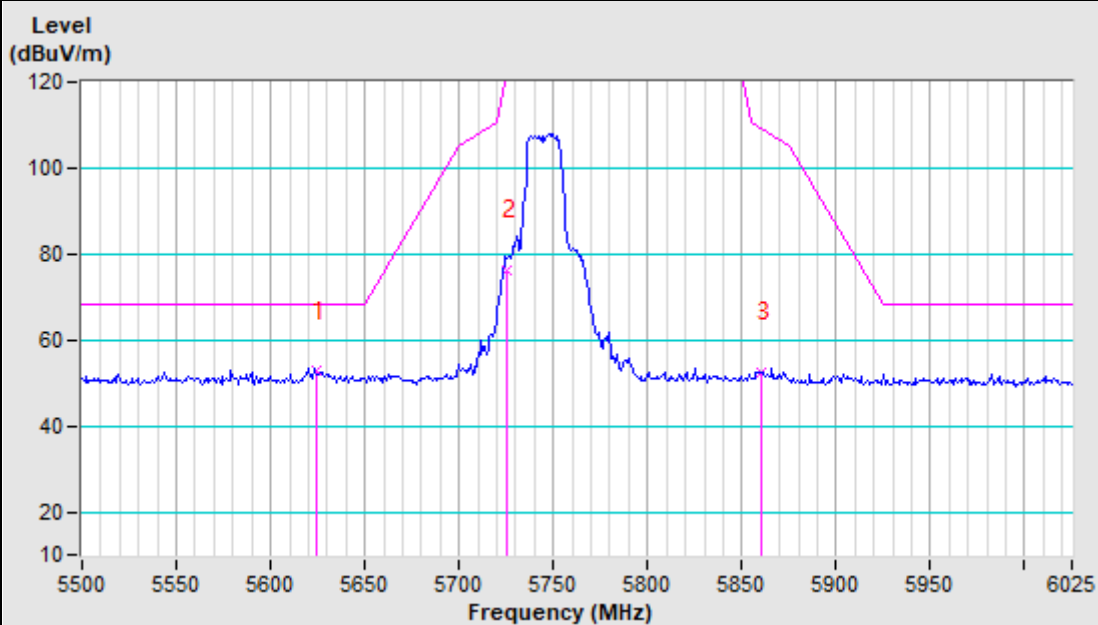


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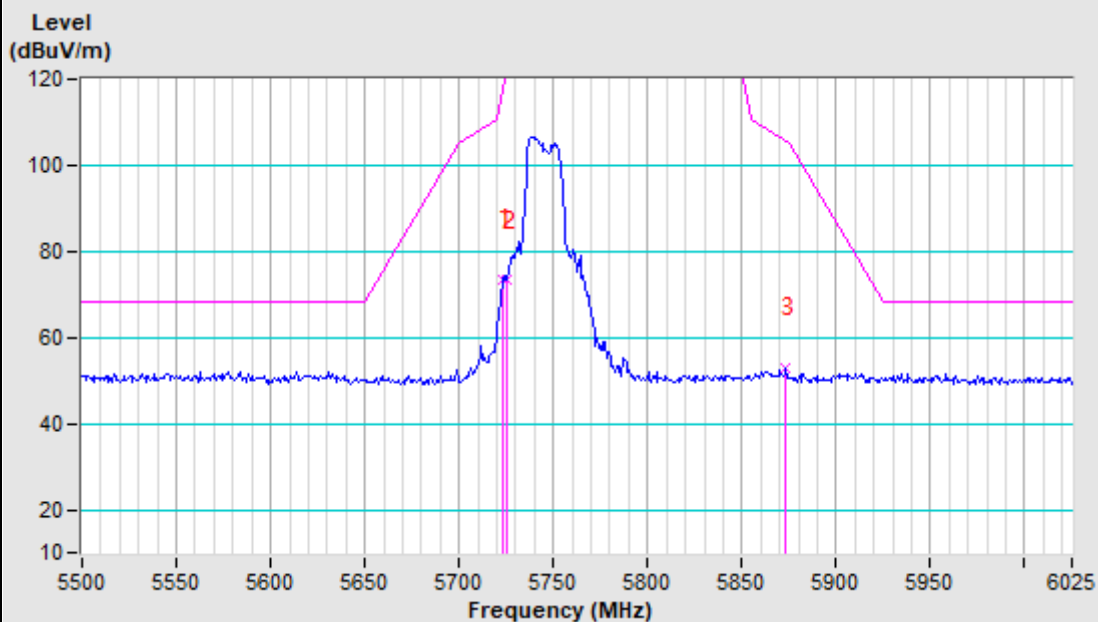
Test Report No.: RF2312WDG0147-3

Band edge Plot

5745MHz Horizontal



5745MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	#5661.90	52.22 PK	77.03	-24.81	1.00 H	69	44.64	7.58
2	*5785.00	107.95 PK			1.00 H	31	100.23	7.72
3	*5785.00	98.35 AV			1.00 H	31	90.63	7.72
4	#5907.21	50.74 PK	81.33	-30.59	1.00 H	0	42.90	7.84
5	#5948.44	50.91 PK	68.20	-17.29	1.00 H	0	43.03	7.88
6	11570.00	52.35 PK	74.00	-21.65	1.01 H	55	35.72	16.63
7	11570.00	41.20 AV	54.00	-12.80	1.01 H	55	24.57	16.63
8	#17355.00	54.15 PK	68.20	-14.05	1.00 H	32	29.95	24.20

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5653.49	48.26 PK	70.79	-22.53	1.00 V	173	40.68	7.58
2	*5785.00	105.64 PK			1.00 V	47	97.92	7.72
3	*5785.00	95.28 AV			1.00 V	47	87.56	7.72
4	#5913.10	53.49 PK	76.98	-23.49	1.00 V	304	45.65	7.84
5	#5944.23	50.69 PK	68.20	-17.51	1.00 V	355	42.81	7.88
6	11570.00	52.35 PK	74.00	-21.65	1.00 V	32	35.72	16.63
7	11570.00	41.20 AV	54.00	-12.80	1.00 V	32	24.57	16.63
8	#17355.00	54.39 PK	68.20	-13.81	1.33 V	5	30.19	24.20

REMARKS:

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

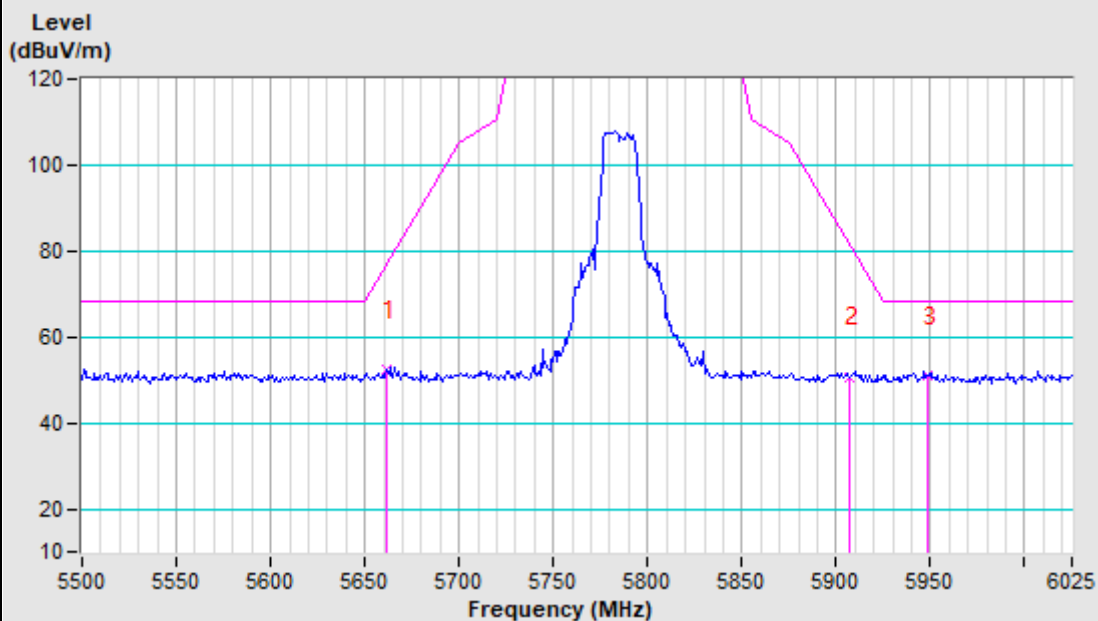


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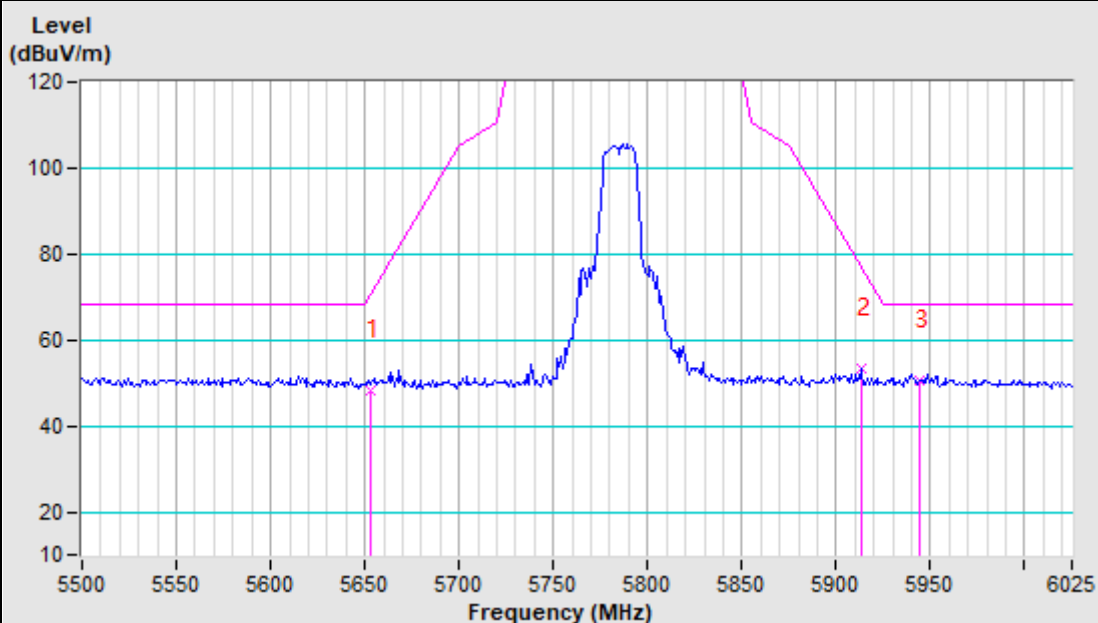
Test Report No.: RF2312WDG0147-3

Band edge Plot

5785MHz Horizontal



5785MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	#5703.12	51.32 PK	106.08	-54.76	1.00 H	0	43.69	7.63
2	*5825.00	107.25 PK			1.00 H	2	99.50	7.75
3	*5825.00	97.35 AV			1.00 H	2	89.60	7.75
4	#5850.00	65.80 PK	122.20	-56.40	1.00 H	0	58.03	7.77
5	#5942.55	53.95 PK	68.20	-14.25	1.00 H	0	46.08	7.87
6	11650.00	54.28 PK	74.00	-19.72	1.00 H	52	37.67	16.61
7	11650.00	41.28 AV	54.00	-12.72	1.00 H	52	24.67	16.61
8	#17475.00	55.60 PK	68.20	-12.60	1.00 H	2	31.51	24.09

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5655.17	49.58 PK	72.04	-22.46	1.00 V	0	42.00	7.58
2	*5825.00	105.29 PK			1.00 V	3	97.54	7.75
3	*5825.00	94.87 AV			1.00 V	3	87.12	7.75
4	#5850.00	63.81 PK	122.20	-58.39	1.00 V	21	56.04	7.77
5	#5853.37	60.78 PK	114.53	-53.75	1.00 V	0	53.00	7.78
6	11650.00	53.26 PK	74.00	-20.74	1.65 V	2	36.65	16.61
7	11650.00	41.28 AV	54.00	-12.72	1.65 V	2	24.67	16.61
8	#17475.00	53.69 PK	68.20	-14.51	1.00 V	5	29.60	24.09

REMARKS:

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

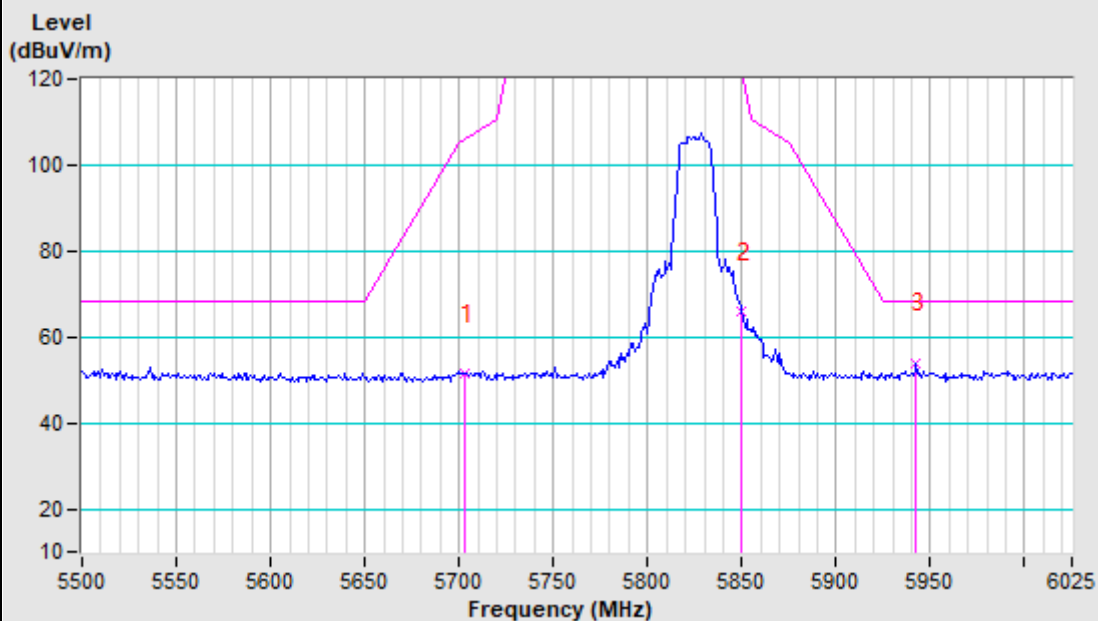


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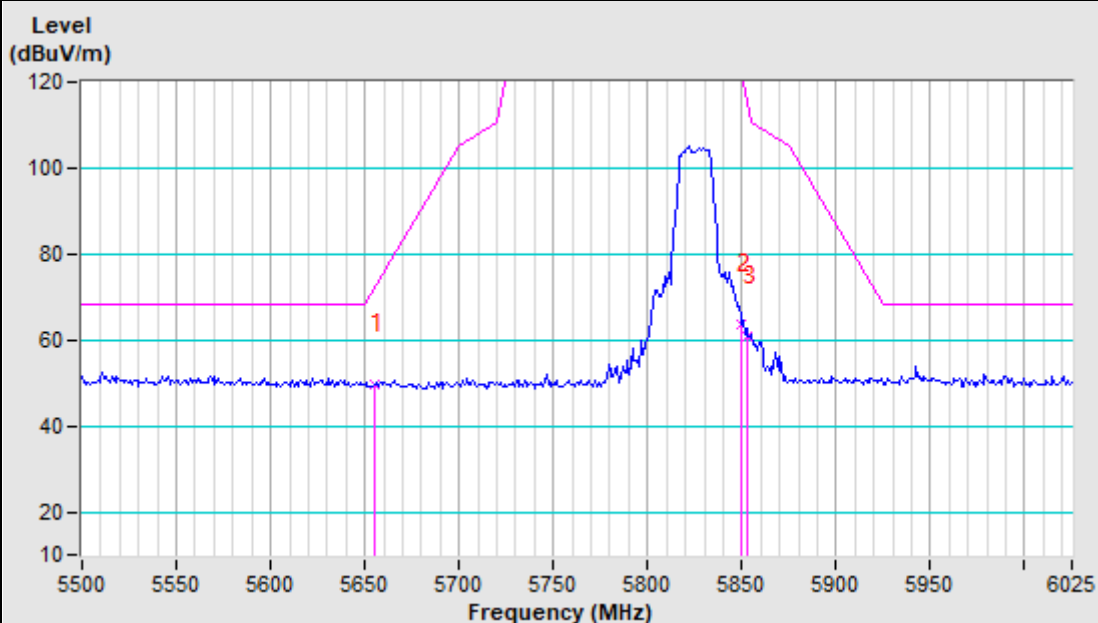
Test Report No.: RF2312WDG0147-3

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	#5719.11	75.76 PK	110.55	-34.79	1.00 H	0	68.11	7.65
2	#5725.00	75.17 PK	122.20	-47.03	1.00 H	0	67.52	7.65
3	*5755.00	105.86 PK			1.00 H	325	98.18	7.68
4	*5755.00	94.32 AV			1.00 H	325	86.64	7.68
5	#5930.77	50.14 PK	68.20	-18.06	1.00 H	0	42.28	7.86
6	11510.00	54.58 PK	74.00	-19.42	1.00 H	4	37.94	16.64
7	11510.00	41.25 AV	54.00	-12.75	1.00 H	4	24.61	16.64
8	#17265.00	53.89 PK	68.20	-14.31	1.00 H	32	29.59	24.30

ANTENNA POLARITY & TEST DISTANCE : VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5723.32	69.65 PK	118.36	-48.71	1.00 V	312	62.00	7.65
2	#5725.00	72.04 PK	122.20	-50.16	1.00 V	194	64.39	7.65
3	*5755.00	103.89 PK			1.00 V	15	96.21	7.68
4	*5755.00	94.39 AV			1.00 V	15	86.71	7.68
5	#5930.77	49.15 PK	68.20	-19.05	1.00 V	107	41.29	7.86
6	11510.00	53.29 PK	74.00	-20.71	1.03 V	52	36.65	16.64
7	11510.00	42.10 AV	54.00	-11.90	1.03 V	52	25.46	16.64
8	#17266.00	53.20 PK	68.20	-15.00	1.00 V	321	28.90	24.30

REMARKS:

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

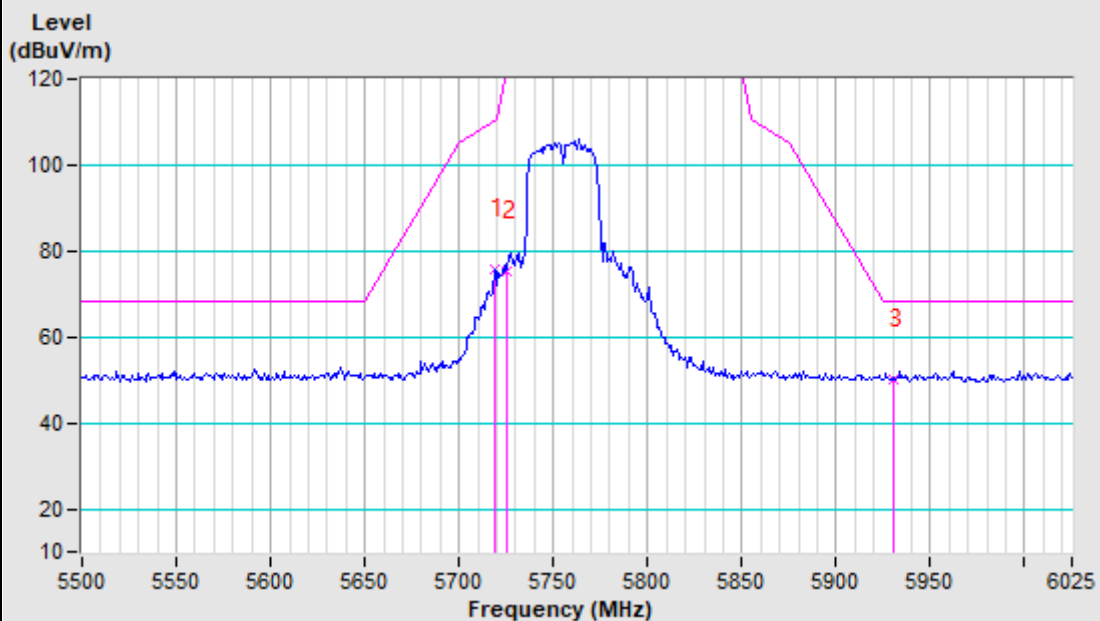


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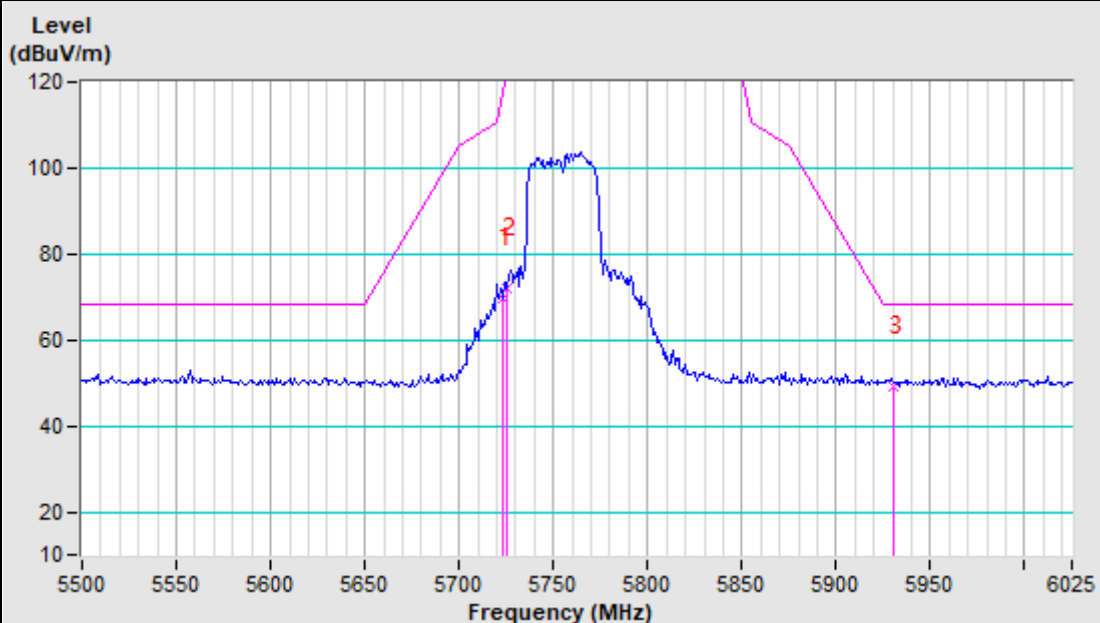
Test Report No.: RF2312WDG0147-3

Band edge Plot

5755MHz Horizontal



5755MHz Vertical





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Test Report No.: RF2312WDG0147-3

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	#5725.00	51.98 PK	122.20	-70.22	1.00 H	97	44.33	7.65
2	*5795.00	105.96 PK			1.00 H	21	98.24	7.72
3	*5795.00	96.31 AV			1.00 H	21	88.59	7.72
4	#5850.00	56.40 PK	122.20	-65.80	1.00 H	153	48.63	7.77
5	#5873.56	51.74 PK	105.60	-53.86	1.00 H	267	43.94	7.80
6	11590.00	53.26 PK	74.00	-20.74	1.00 H	211	36.63	16.63
7	11590.00	41.09 AV	54.00	-12.91	1.00 H	211	24.46	16.63
8	#17325.00	54.26 PK	68.20	-13.94	1.00 H	325	30.02	24.24

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	51.98 PK	122.20	-70.22	1.00 V	231	44.33	7.65
2	*5795.00	102.39 PK			1.00 V	21	94.67	7.72
3	*5795.00	92.35 AV			1.00 V	21	84.63	7.72
4	#5850.00	56.17 PK	122.20	-66.03	1.00 V	0	48.40	7.77
5	#5942.55	50.14 PK	68.20	-18.06	1.00 V	0	42.27	7.87
6	11590.00	53.20 PK	74.00	-20.80	1.02 V	19	36.57	16.63
7	11590.00	42.10 AV	54.00	-11.90	1.02 V	19	25.47	16.63
8	#17325.00	53.25 PK	68.20	-14.95	1.00 V	3	29.01	24.24

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.

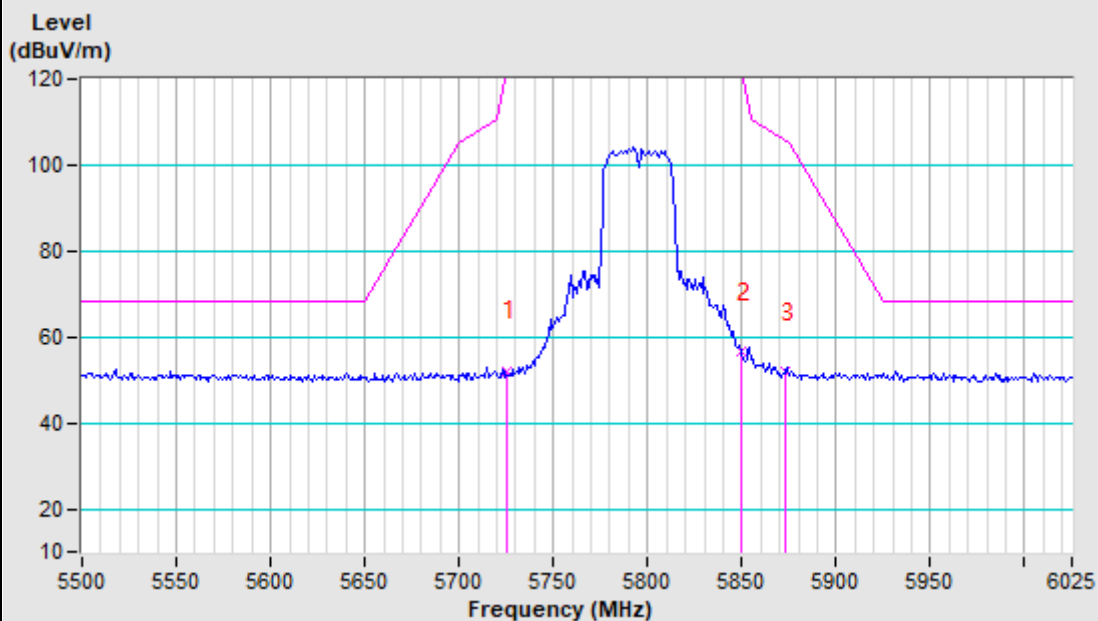


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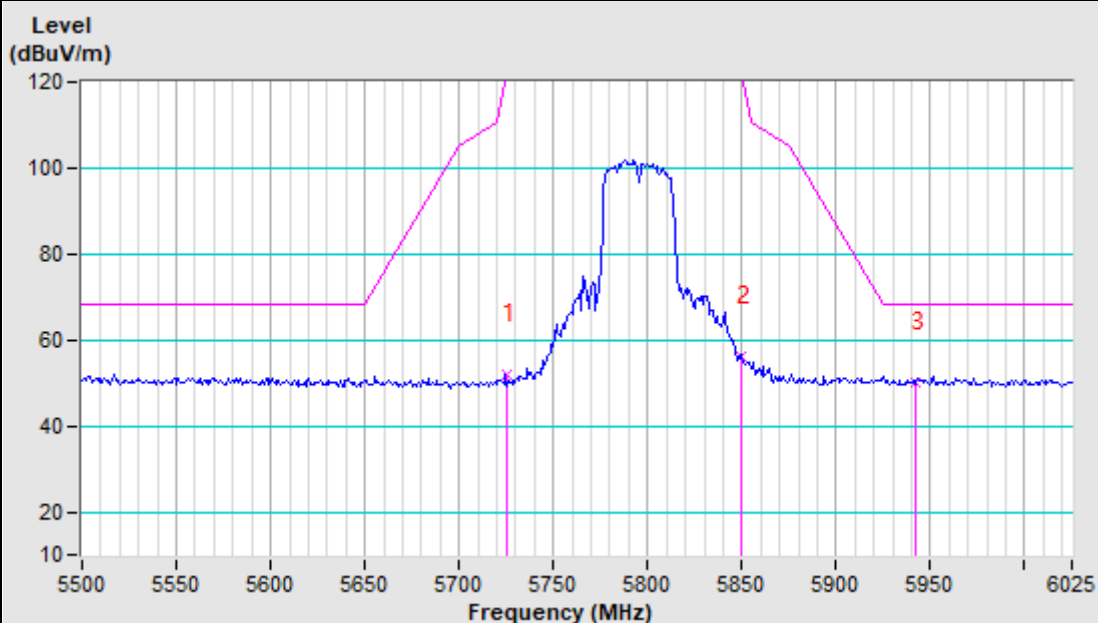
Test Report No.: RF2312WDG0147-3

Band edge Plot

5795MHz Horizontal



5795MHz Vertical





3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- 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. 02, 25
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Jan. 11, 25
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Jan. 02, 25
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jul. 16, 24
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, GREGT/CHINA and NIM/CHINA.

3.2.3 TEST PROCEDURES

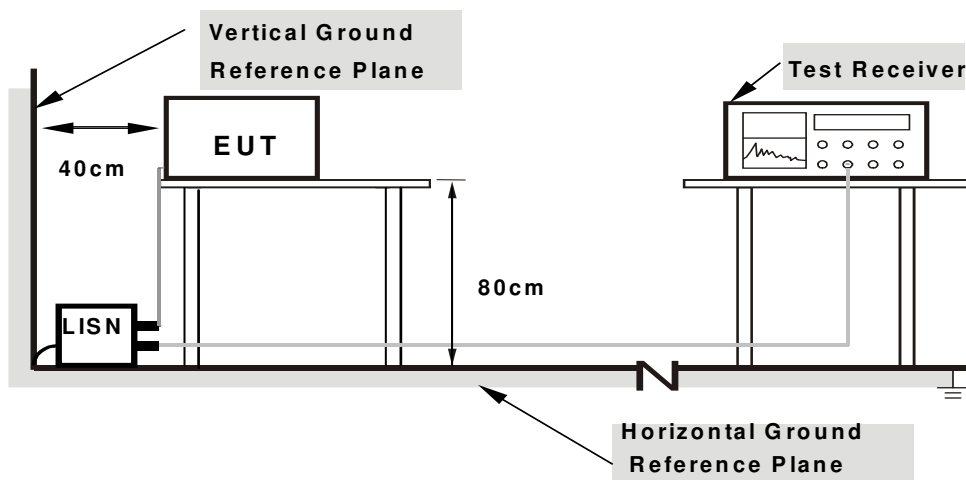
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

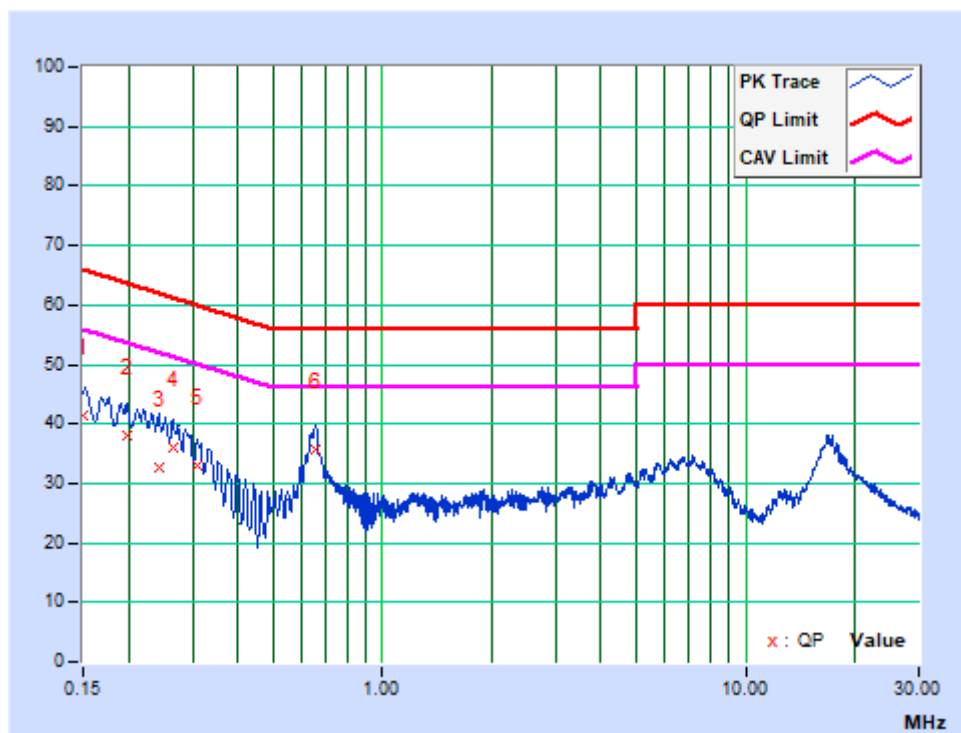
3.2.7 TEST RESULTS

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	0.15000	9.62	31.93	16.07	41.55	25.69	66.00	56.00	-24.45	-30.31
2	0.19721	9.62	28.54	11.24	38.16	20.86	63.73	53.73	-25.57	-32.87
3	0.24231	9.64	23.17	7.03	32.81	16.67	62.02	52.02	-29.21	-35.35
4	0.26475	9.63	26.36	7.56	35.99	17.19	61.28	51.28	-25.29	-34.09
5	0.30894	9.62	23.33	9.21	32.95	18.83	60.00	50.00	-27.05	-31.17
6	0.65392	9.63	26.09	16.56	35.72	26.19	56.00	46.00	-20.28	-19.81

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





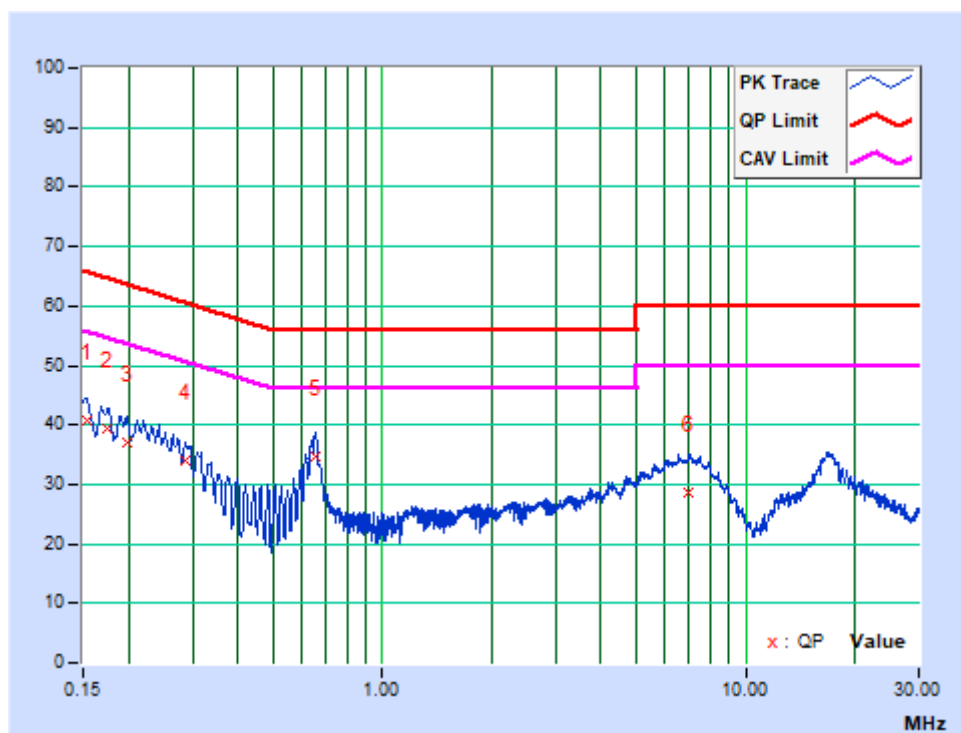
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Test Report No.: RF2312WDG0147-3

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	0.15450	9.36	31.51	12.26	40.87	21.62	65.75	55.75	-24.89	-34.14
2	0.17420	9.32	29.94	12.31	39.26	21.63	64.76	54.76	-25.50	-33.13
3	0.19721	9.33	27.78	9.40	37.11	18.73	63.73	53.73	-26.62	-35.00
4	0.28692	9.34	24.78	5.74	34.12	15.08	60.61	50.61	-26.49	-35.53
5	0.65392	9.38	25.29	10.42	34.67	19.80	56.00	46.00	-21.33	-26.20
6	6.96750	9.52	19.10	5.60	28.62	15.12	60.00	50.00	-31.38	-34.88

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



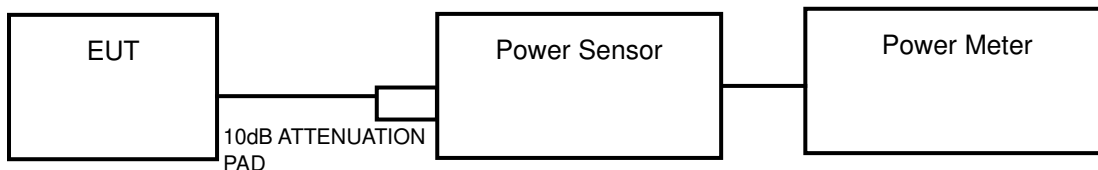
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

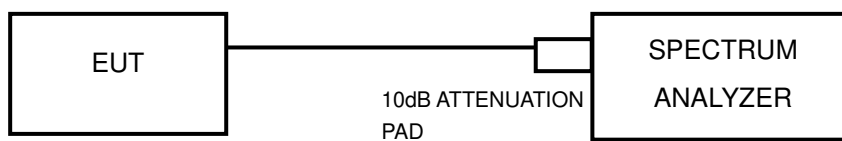
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW (21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

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

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH





3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	May. 11, 24
Power Meter	Anritsu	ML2495A	1139001	Jul. 11, 24
Power Sensor	Anritsu	MA2411B	1531155	Jul. 11, 24
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct. 15, 24
Oscilloscope	Agilent	DSO9254A	MY51260160	Jul. 11, 24
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 01, 25
Signal Generator	Agilent	N5183A	MY50140980	Jul. 23, 24
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Jul. 11, 24
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	14.89	30.832	23.20	PASS
40	5200	14.53	28.379	23.20	PASS
48	5240	14.32	27.040	23.20	PASS
52	5260	17.51	56.364	23.20	PASS
60	5300	17.30	53.703	23.20	PASS
64	5320	16.89	48.865	23.20	PASS
100	5500	16.47	44.361	23.20	PASS
116	5580	16.34	43.053	23.20	PASS
140	5700	15.49	35.400	23.20	PASS
149	5745	18.32	67.920	29.20	PASS
157	5785	17.43	55.335	29.20	PASS
165	5825	17.58	57.280	29.20	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(25.51)= 25.07 dBm > 24dBm

23.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.



802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	14.32	27.040	23.20	PASS
40	5200	14.56	28.576	23.20	PASS
48	5240	14.39	27.479	23.20	PASS
52	5260	17.98	62.806	23.20	PASS
60	5300	17.84	60.814	23.20	PASS
64	5320	17.29	53.580	23.20	PASS
100	5500	16.38	43.451	23.20	PASS
116	5580	16.68	46.559	23.20	PASS
140	5700	15.85	38.459	23.20	PASS
149	5745	18.00	63.096	29.20	PASS
157	5785	17.28	53.456	29.20	PASS
165	5825	17.62	57.810	29.20	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(23.72)= 24.75 dBm > 24dBm

23.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.



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802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	14.58	28.708	23.20	PASS
46	5230	14.29	26.853	23.20	PASS
54	5270	18.08	64.269	23.20	PASS
62	5310	15.35	34.277	23.20	PASS
102	5510	14.02	25.235	23.20	PASS
110	5550	16.79	47.753	23.20	PASS
134	5670	16.05	40.272	23.20	PASS
151	5755	17.86	61.094	29.20	PASS
159	5795	17.31	53.827	29.20	PASS

Note:

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(39.94)= 27.01 dBm > 24dBm

23.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	21.37	PASS
40	5200	21.35	PASS
48	5240	21.29	PASS
52	5260	25.52	PASS
60	5300	25.51	PASS
64	5320	25.65	PASS
100	5500	30.53	PASS
116	5580	33.29	PASS
140	5700	26.29	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	22.10	PASS
40	5200	22.12	PASS
48	5240	22.09	PASS
52	5260	23.76	PASS
60	5300	23.75	PASS
64	5320	23.72	PASS
100	5500	28.96	PASS
116	5580	35.99	PASS
140	5700	30.02	PASS



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802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	39.97	PASS
46	5230	39.97	PASS
54	5270	58.03	PASS
62	5310	39.96	PASS
102	5510	39.94	PASS
110	5550	73.21	PASS
134	5670	69.87	PASS



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6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.51	PASS
157	5785	16.58	PASS
165	5825	16.58	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	17.80	PASS
157	5785	17.79	PASS
165	5825	17.78	PASS

802.11n (40M)

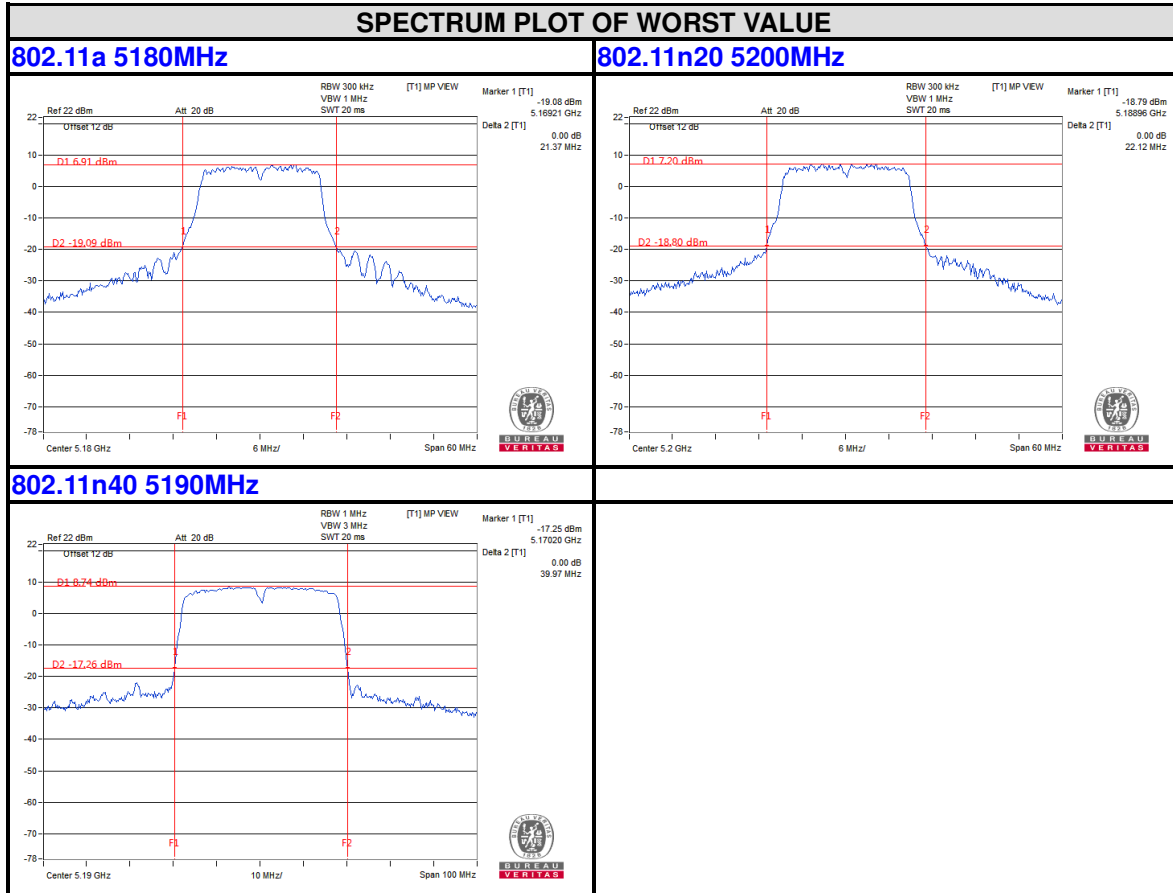
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	36.49	PASS
159	5795	36.45	PASS



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26dB bandwidth Test Plot For 5150-5250MHz



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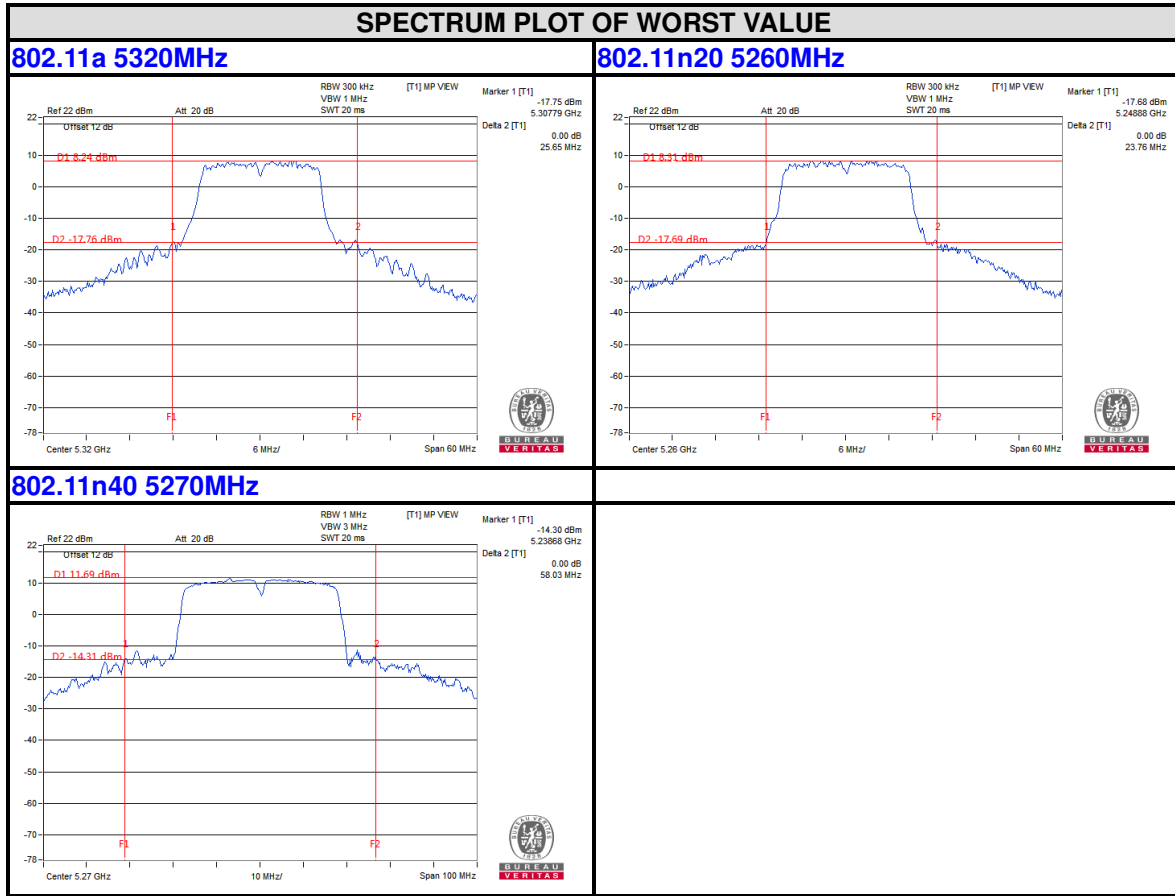
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For 5250-5350MHz



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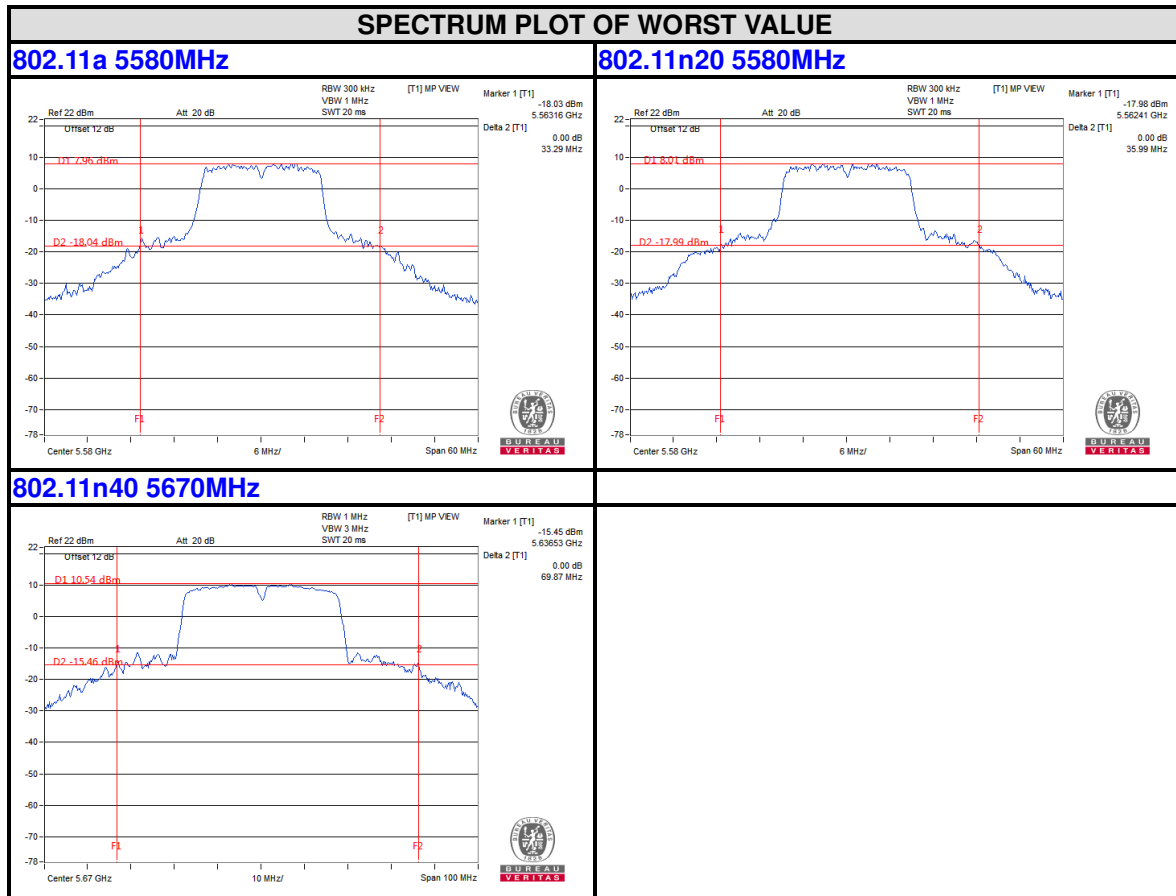
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For 5470-5725MHz



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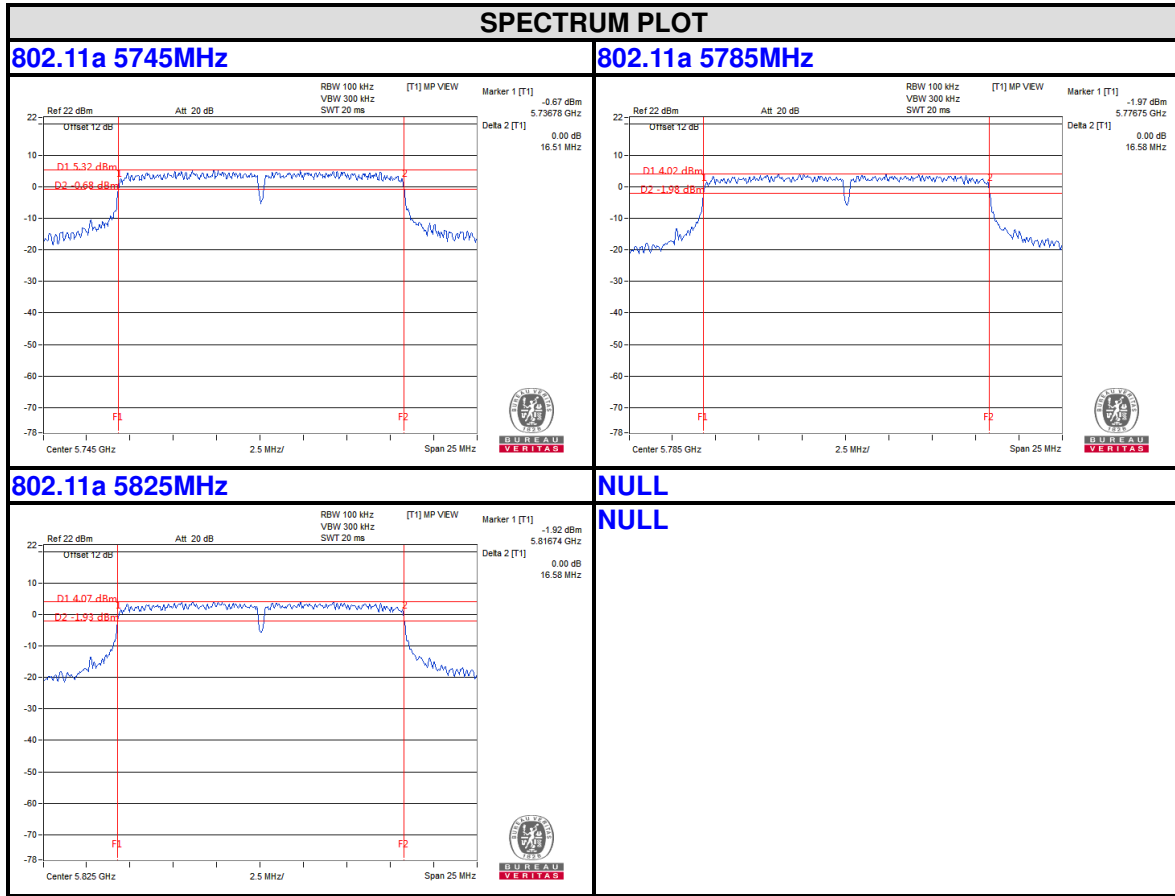
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6dB BANDWIDTH For 5725-5850MHz



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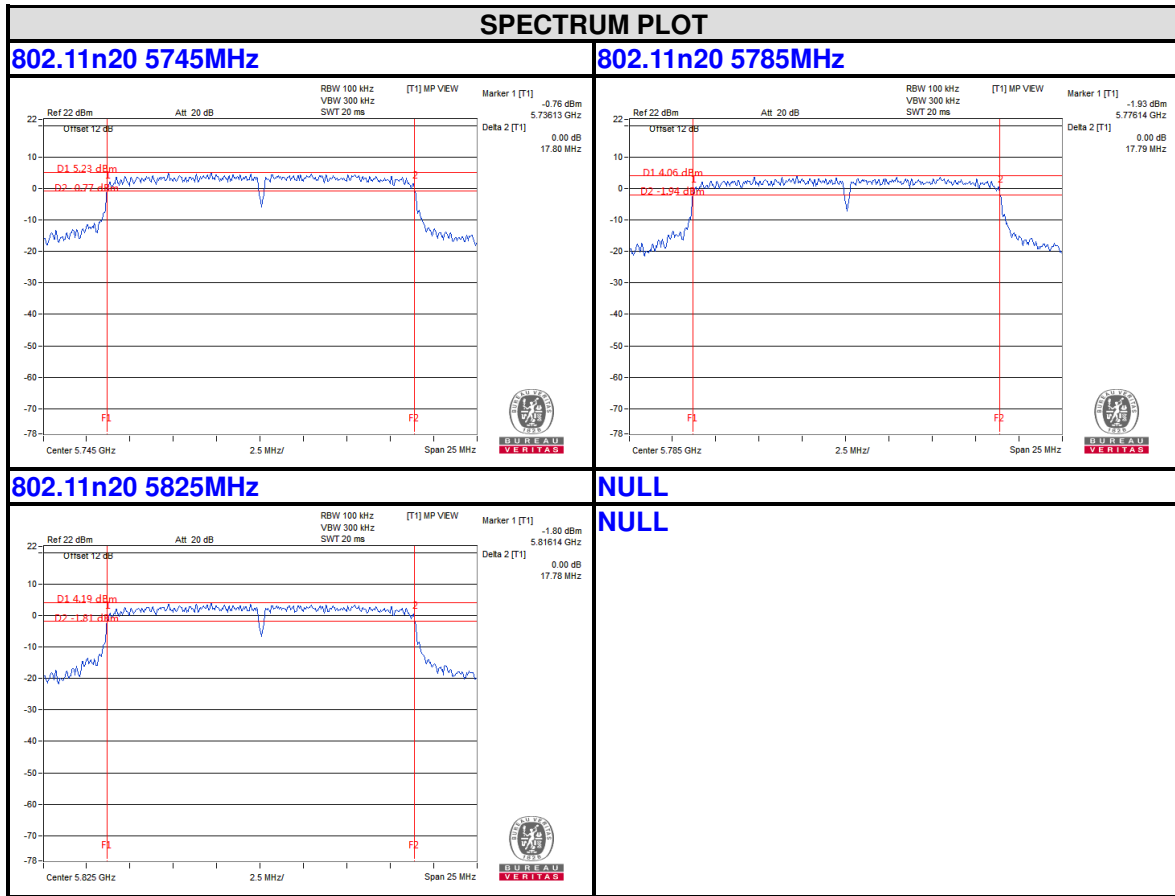
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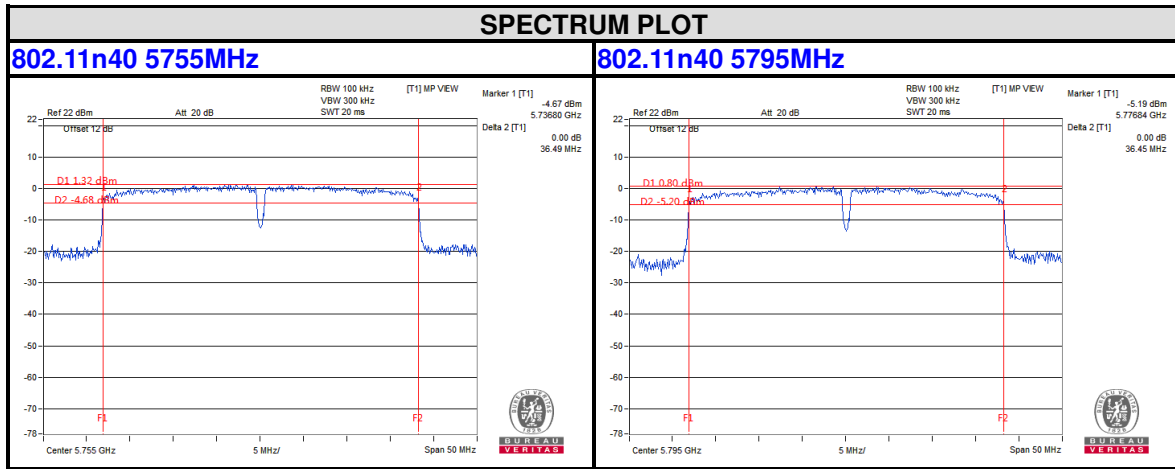
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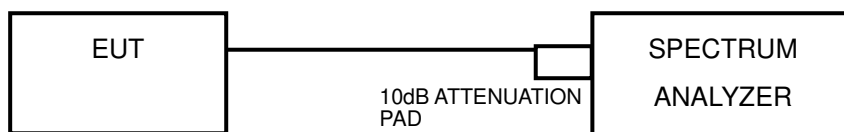
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3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW = 3 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to “free run”.
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)



For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 500 kHz, Set VBW = 2 MHz, Detector = RMS
- 3) Set Channel power measure = 1 MHz
- 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 $10 \log (1/\text{duty cycle})$

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	1.91	0	1.91	10.20	PASS
40	5200	1.36	0	1.36	10.20	PASS
48	5240	1.38	0	1.38	10.20	PASS
52	5260	4.35	0	4.35	10.20	PASS
60	5300	4.32	0	4.32	10.20	PASS
64	5320	4.19	0	4.19	10.20	PASS
100	5500	3.27	0	3.27	10.20	PASS
116	5580	3.91	0	3.91	10.20	PASS
140	5700	2.84	0	2.84	10.20	PASS

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

For U-NII-1&U-NII-2A&U-NII-2C

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.98	0	6.48	29.20	PASS
157	5785	3.88	0	5.38	29.20	PASS
165	5825	3.84	0	5.34	29.20	PASS

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

For U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

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	1.95	0	1.95	10.20	PASS
40	5200	1.39	0	1.39	10.20	PASS
48	5240	1.48	0	1.48	10.20	PASS
52	5260	4.45	0	4.45	10.20	PASS
60	5300	4.55	0	4.55	10.20	PASS
64	5320	4.15	0	4.15	10.20	PASS
100	5500	2.94	0	2.94	10.20	PASS
116	5580	3.98	0	3.98	10.20	PASS
140	5700	2.88	0	2.88	10.20	PASS

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

For U-NII-1&U-NII-2A&U-NII-2C

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.57	0	7.20	29.20	PASS
157	5785	3.45	0	6.08	29.20	PASS
165	5825	3.37	0	6.00	29.20	PASS

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

For U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

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	-1.14	0	-1.14	10.20	PASS
46	5230	0.65	0	0.65	10.20	PASS
54	5270	1.44	0	1.44	10.20	PASS
62	5310	-0.96	0	-0.96	10.20	PASS
102	5510	-2.42	0	-2.42	10.20	PASS
118	5590	1.58	0	1.58	10.20	PASS
134	5670	0.37	0	0.37	10.20	PASS

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

For U-NII-1&U-NII-2A&U-NII-2C

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	1.03	0	1.03	29.20	PASS
159	5795	0.21	0	0.21	29.20	PASS

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

For U-NII-3

1. Directional gain= 6.8dBi, over than 6dBi, so the power limit needs to reduce 0.8dB.

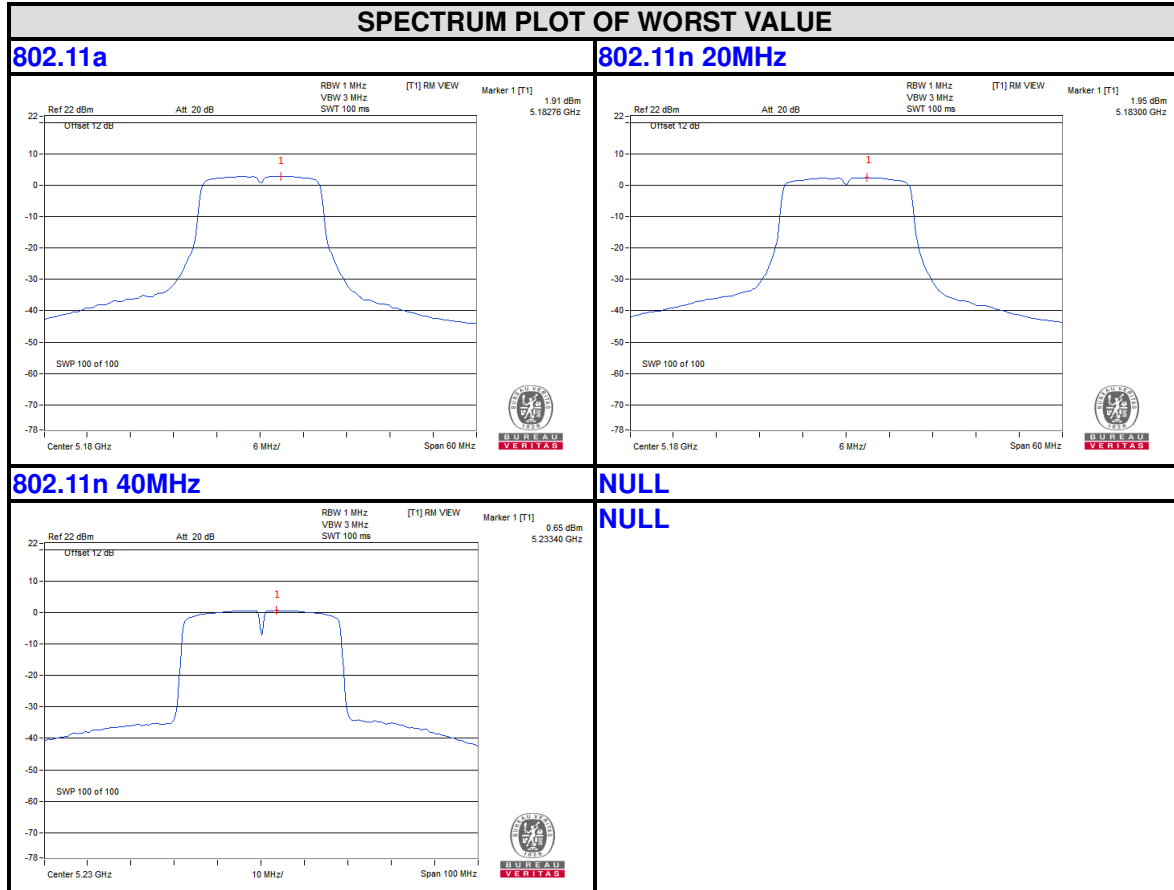


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PSD Test Plot

BAND 1
5150-5250MHz

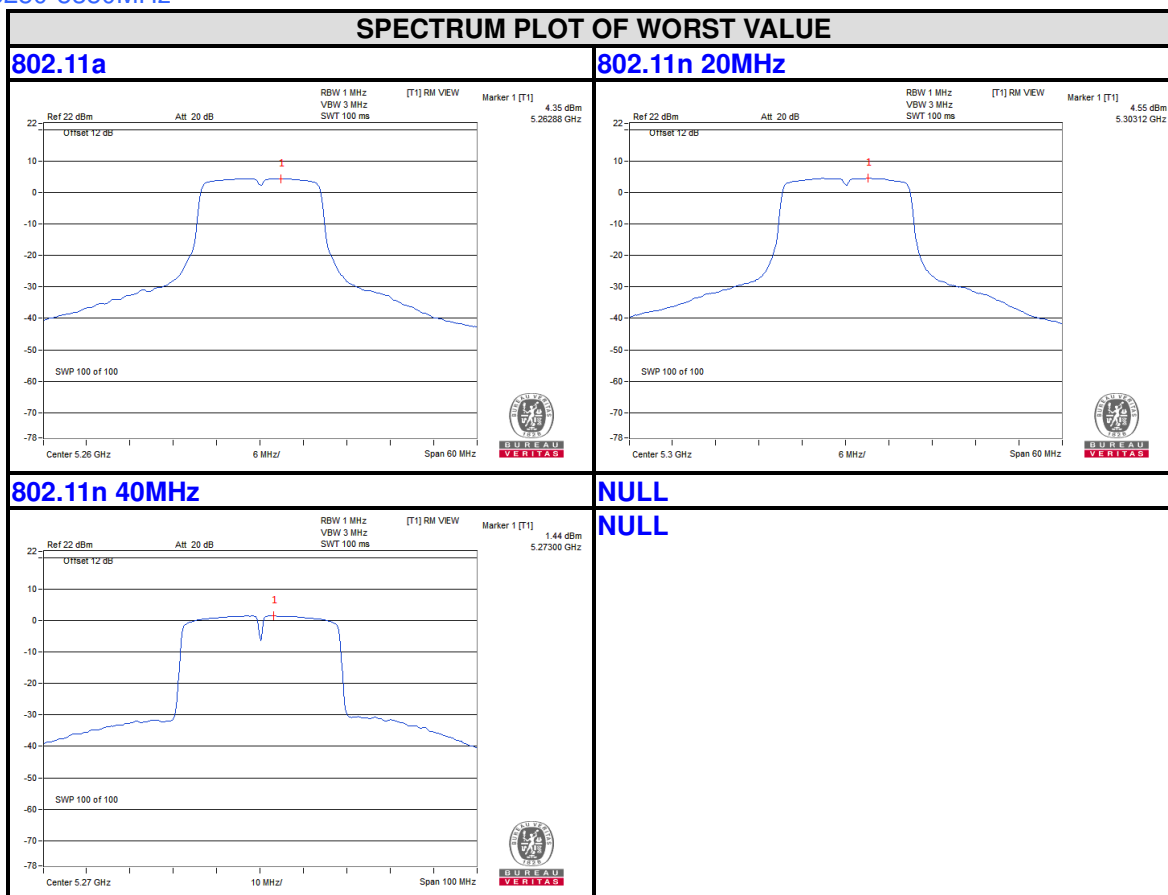




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BAND 2
5250-5350MHz

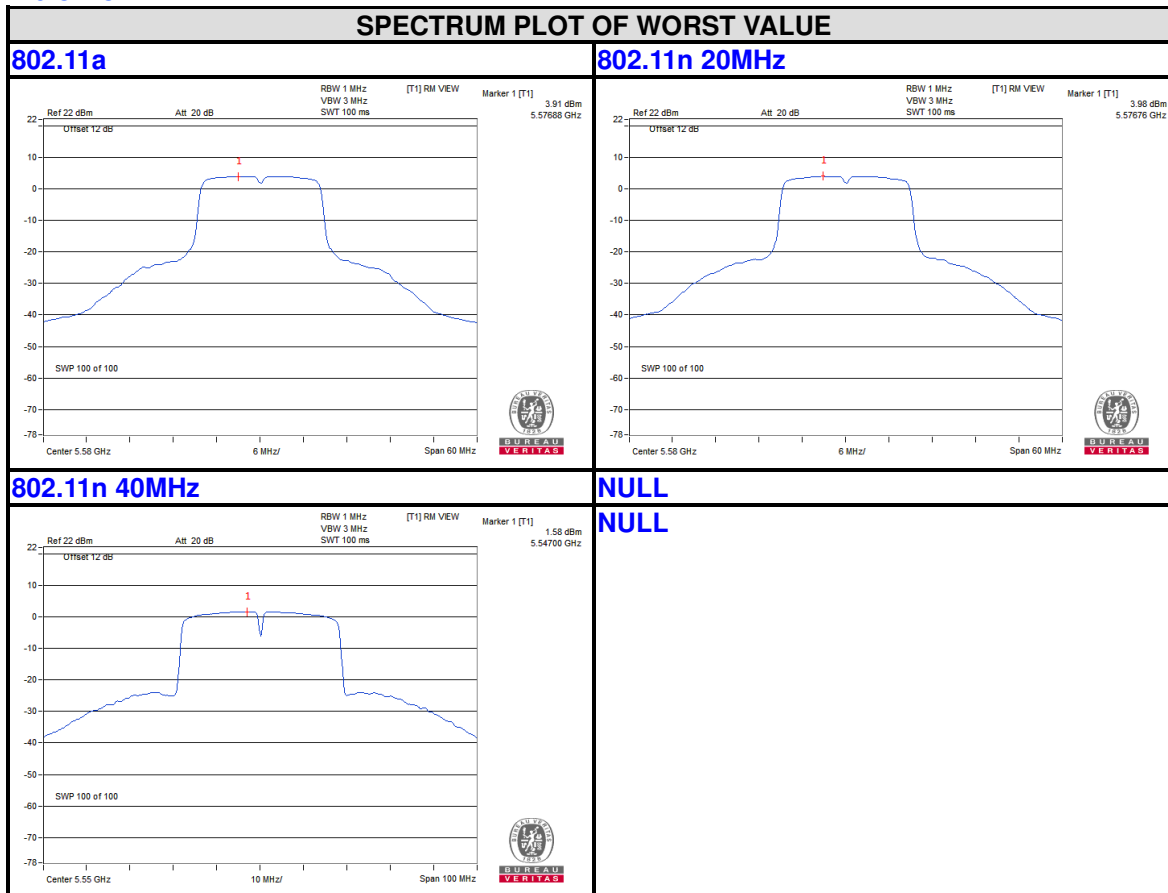




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BAND 3
5470-5725MHz



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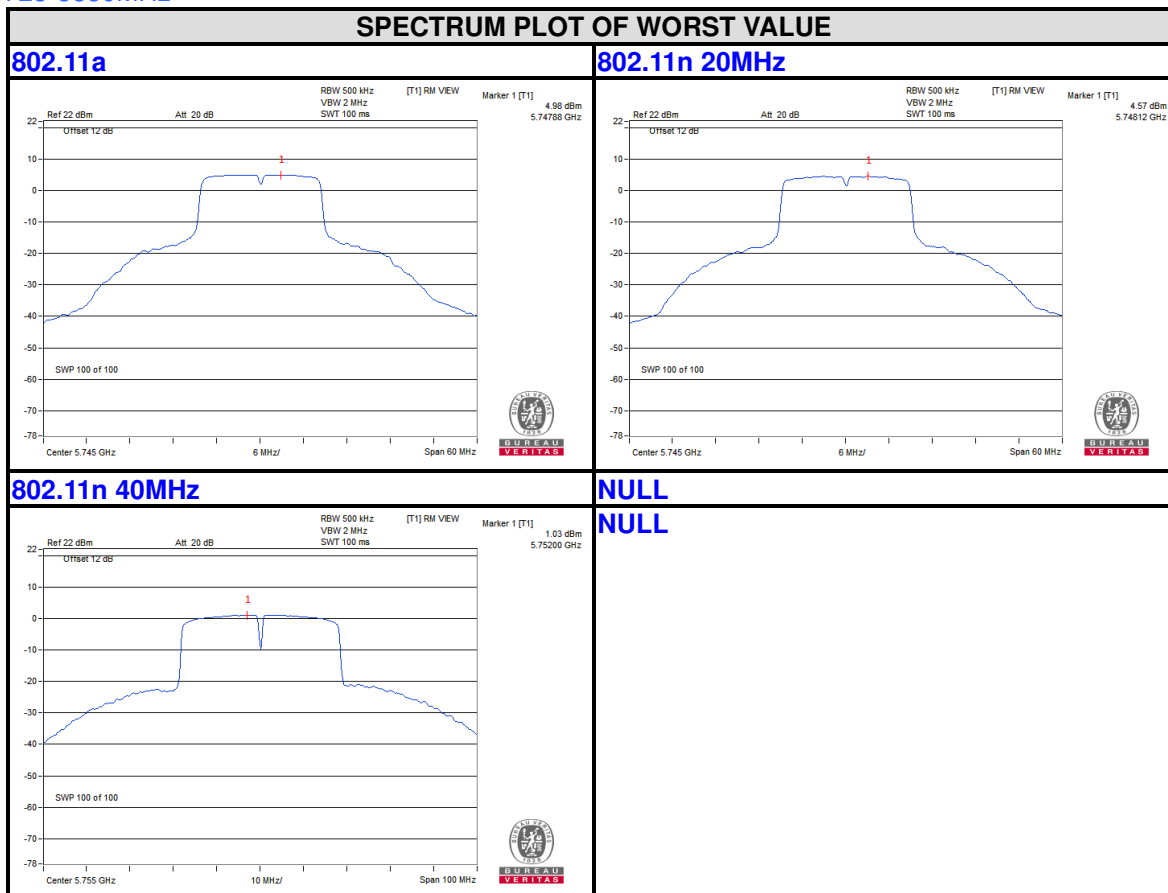
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BAND4
5725-5850MHz



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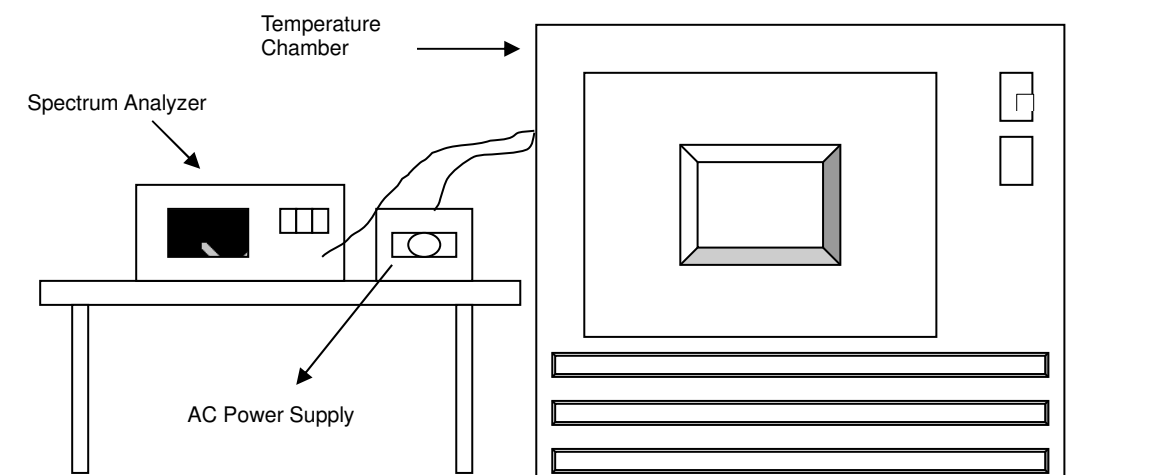
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3.5 FREQUENCY STABILITY

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.: RF2312WDG0147-3

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.



3.5.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.993	-0.007	5179.992	-0.008	5179.9926	-0.0074	5179.9914	-0.0086
40	120	5179.999	-0.001	5180.0001	0.0001	5179.998	-0.002	5180.0004	0.0004
30	120	5180.0173	0.0173	5180.0183	0.0183	5180.0177	0.0177	5180.0185	0.0185
20	120	5179.992	-0.008	5179.9921	-0.0079	5179.9913	-0.0087	5179.9926	-0.0074
10	120	5179.9767	-0.0233	5179.9762	-0.0238	5179.9782	-0.0218	5179.9796	-0.0204
0	120	5180.0081	0.0081	5180.0068	0.0068	5180.0088	0.0088	5180.0082	0.0082
-10	120	5180.0136	0.0136	5180.0089	0.0089	5180.0119	0.0119	5180.0109	0.0109
-20	120	5180.0112	0.0112	5180.0113	0.0113	5180.0138	0.0138	5180.0153	0.0153
-30	120	5179.9944	-0.0056	5179.9959	-0.0041	5179.9966	-0.0034	5179.992	-0.008

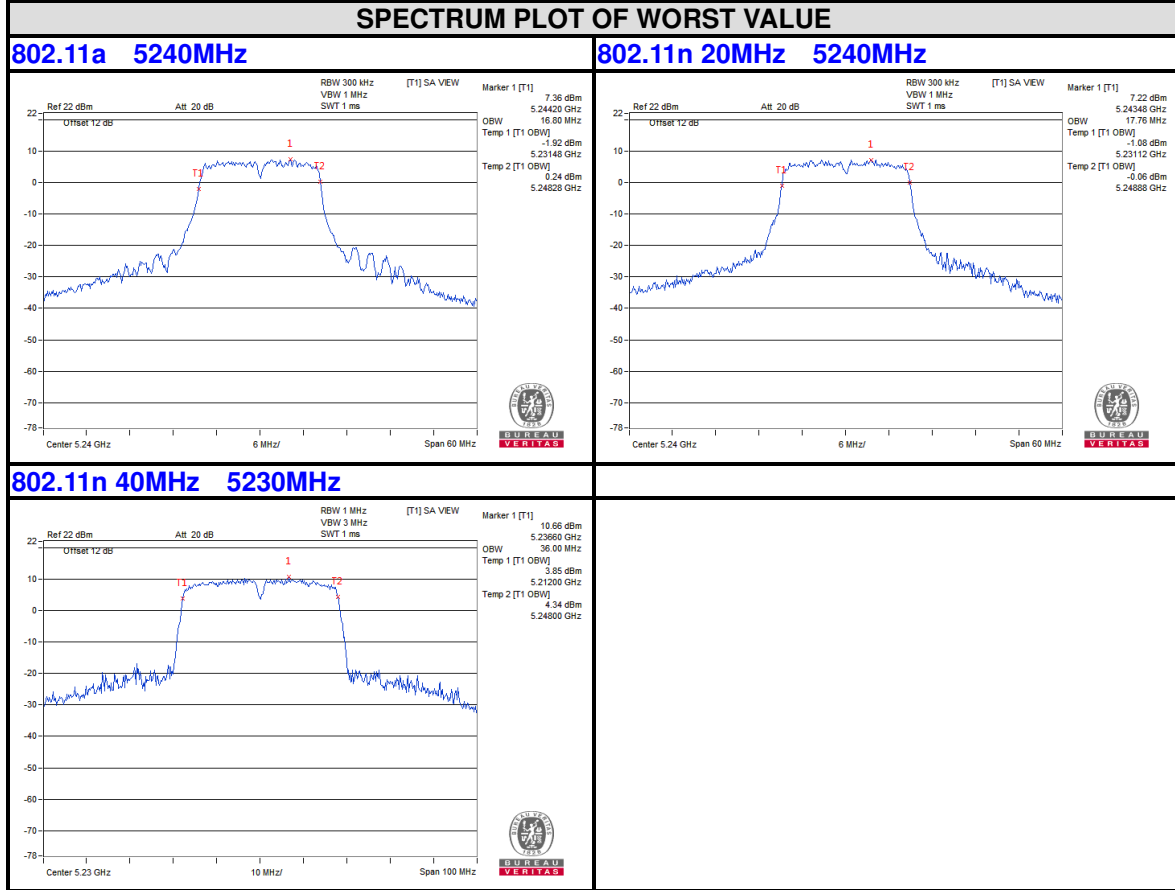
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5179.9913	-0.0087	5179.9929	-0.0071	5179.9918	-0.0082	5179.9929	-0.0071
	120	5179.992	-0.008	5179.9921	-0.0079	5179.9913	-0.0087	5179.9926	-0.0074
	102	5179.993	-0.007	5179.9925	-0.0075	5179.9914	-0.0086	5179.9926	-0.0074



BUREAU VERITAS

Test Report No.: RF2312WDG0147-3

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



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

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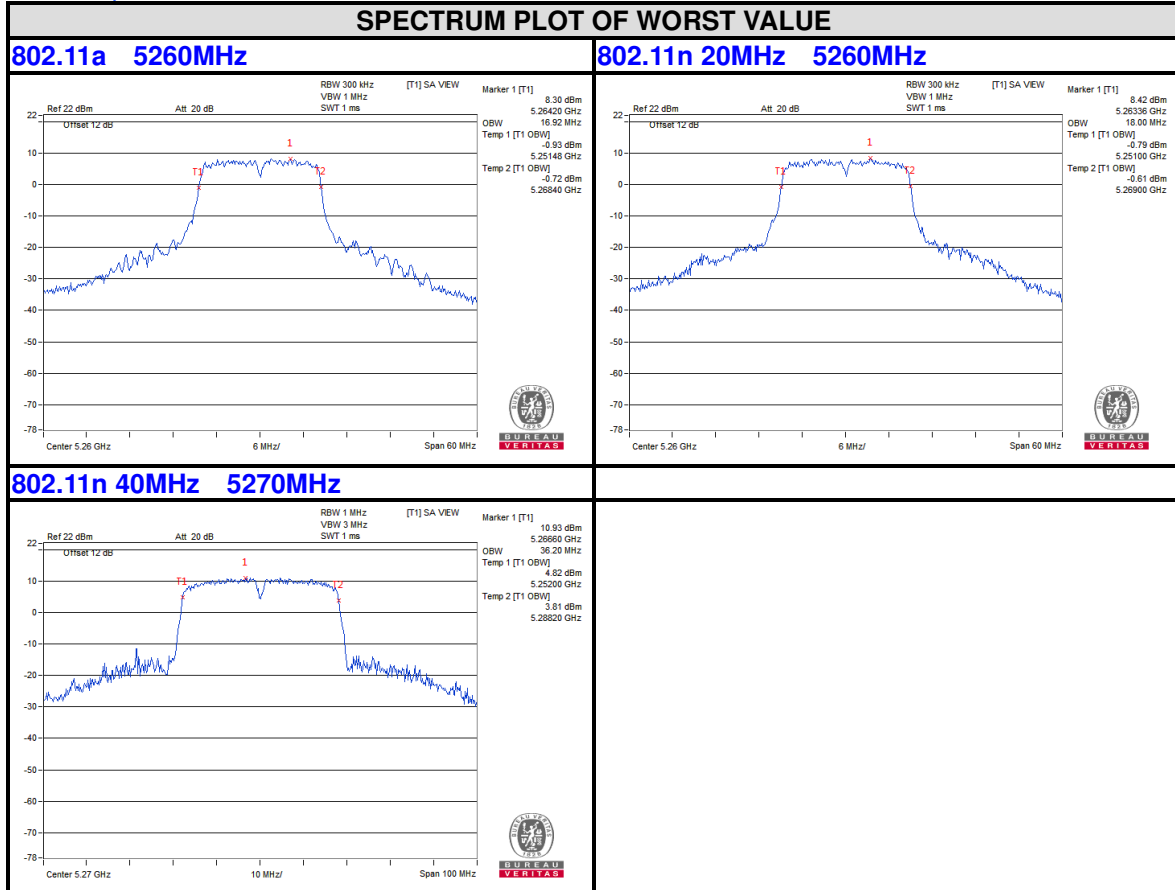
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BUREAU VERITAS

Test Report No.: RF2312WDG0147-3

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



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Test Report No.: RF2312WDG0147-3

4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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

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

---END---