

TEST REPORT

Applicant	Icon Health and Fitness, Inc.
Address	1500 South 1000 West, Logan Utah United States 84321

Manufacturer or Supplier	Icon Health and Fitness, Inc.
Address	1500 South 1000 West, Logan Utah United States 84321
Product Name	Tablet
Brand Name	N/A
Model	MP32-ARGON
Additional Model & Model Difference	N/A
Date of tests	Jun. 17, 2021 ~ Aug. 03, 2021

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

- ☒ **FCC Part 15, Subpart E, Section 15.407**
- ☒ **ANSI C63.10-2013**

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: Sep. 02, 2021

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <https://www.cps.bureauveritas.com/terms-conditions> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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.....	7
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.....	14
3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT	14
3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT.....	14
3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS	15
3.1.3 TEST INSTRUMENTS.....	16
3.1.4 TEST PROCEDURES	17
3.1.5 DEVIATION FROM TEST STANDARD	17
3.1.6 TEST SETUP.....	18
3.1.7 EUT OPERATING CONDITION	19
3.1.8 TEST RESULTS	20
3.2 CONDUCTED EMISSION MEASUREMENT	81
3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	83
3.2.2 TEST INSTRUMENTS.....	83
3.2.3 TEST PROCEDURES	84
3.2.4 DEVIATION FROM TEST STANDARD	84
3.2.5 TEST SETUP.....	84
3.2.6 EUT OPERATING CONDITIONS	84
3.2.7 TEST RESULTS	85
3.3 TRANSMIT POWER MEASUREMENT	87

3.3.1	LIMITS OF TRANSMIT POWER MEASUREMENT	87
3.3.2	TEST SETUP	87
3.3.3	TEST INSTRUMENTS	88
3.3.4	TEST PROCEDURE	88
3.3.5	DEVIATION FROM TEST STANDARD	89
3.3.6	EUT OPERATING CONDITIONS	89
3.3.7	TEST RESULTS	90
3.4	PEAK POWER SPECTRAL DENSITY MEASUREMENT	101
3.4.1	LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT	101
3.4.2	TEST SETUP	101
3.4.3	TEST INSTRUMENTS	101
3.4.4	TEST PROCEDURES	101
3.4.5	DEVIATION FROM TEST STANDARD	102
3.4.6	EUT OPERATING CONDITIONS	102
3.4.7	TEST RESULTS	103
3.5	FREQUENCY STABILITY	111
3.5.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT	111
3.5.2	TEST SETUP	111
3.5.3	TEST INSTRUMENTS	111
3.5.4	TEST PROCEDURE	112
3.5.5	DEVIATION FROM TEST STANDARD	112
3.5.6	EUT OPERATING CONDITION	112
3.5.7	TEST RESULTS	113
4.	PHOTOGRAPHS OF THE TEST CONFIGURATION	116
5.	APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	117



Test Report No.: RF2106WDG0376-4

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2106WDG0376-4	Original release.	Sep. 02, 2021

1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

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

1.1 MEASUREMENT UNCERTAINTY

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

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

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Tablet
BRAND	N/A
MODEL NO.	MP32-ARGON
ADDITIONAL MODEL	N/A
FCC ID	OMC402551A
POWER SUPPLY	DC 12V
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 433.3Mbps
OPERATING FREQUENCY	5180 ~5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz (without open 5600~5650MHz), 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 1 channel for 802.11ac 80MHz 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 1 channel for 802.11ac 80MHz 5500 ~ 5700MHz: (without open 5600~5650MHz) 8 channels for 802.11a, 802.11n,11ac (20MHz) 3 channels for 802.11n,11ac (40MHz) 1 channel for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz) 1 channel for 802.11ac (80MHz)
CONDUCTED OUTPUT POWER	46.881mW for 5180 ~ 5240MHz (Maximum AVG Power) 33.574mW for 5260 ~ 5320MHz (Maximum AVG Power) 24.831mW for 5500 ~ 5700MHz (Maximum AVG Power) 60.256mW for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: FPCB antenna with 2.7dBi gain 5260 ~ 5320MHz: FPCB antenna with 2.7dBi gain 5500 ~ 5700MHz: FPCB antenna with 2.7dBi gain 5745 ~ 5825MHz: FPCB antenna with 2.7dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	Refer to user's manual

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.: 2106WDG0376) for detailed product photo.
3. The EUT incorporates a SISO function. Physically, the EUT provides 1 completed transmitter and 1 receiver.

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

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

4. The EUT has disabled the 5600-5650MHz band.

2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--

FOR 5470 ~ 5725MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	110	5550 MHz
118	/	126	/
134	5670 MHz		

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	/

FOR 5725 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	DC 12V from Adapter with wifi (5G) link

Where **RE≥1G**: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

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

NOTE: “-” means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106	106	OFDM	BPSK	29.3
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250 5250-5350 5470-5725 5725-5850	36 to 48 52 to 64 100 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 5250-5350 5470-5725 5725-5850	36 to 48 52 to 64 100 to 140 149 to 165	36	OFDM	BPSK	6.0

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106	106	OFDM	BPSK	29.3
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER(ADAPTER)	TESTED BY
RE<1G	25deg. C, 55%RH	DC 12V from Adapter	Jelly
RE≥1G	25deg. C, 55%RH	DC 12V from Adapter	Jelly
PLC	25deg. C, 66%RH	DC 12V from Adapter	Wink
APCM	25deg. C, 60%RH	DC 12V from Adapter	Vincent



BUREAU
VERITAS

Test Report No.: RF2106WDG0376-4

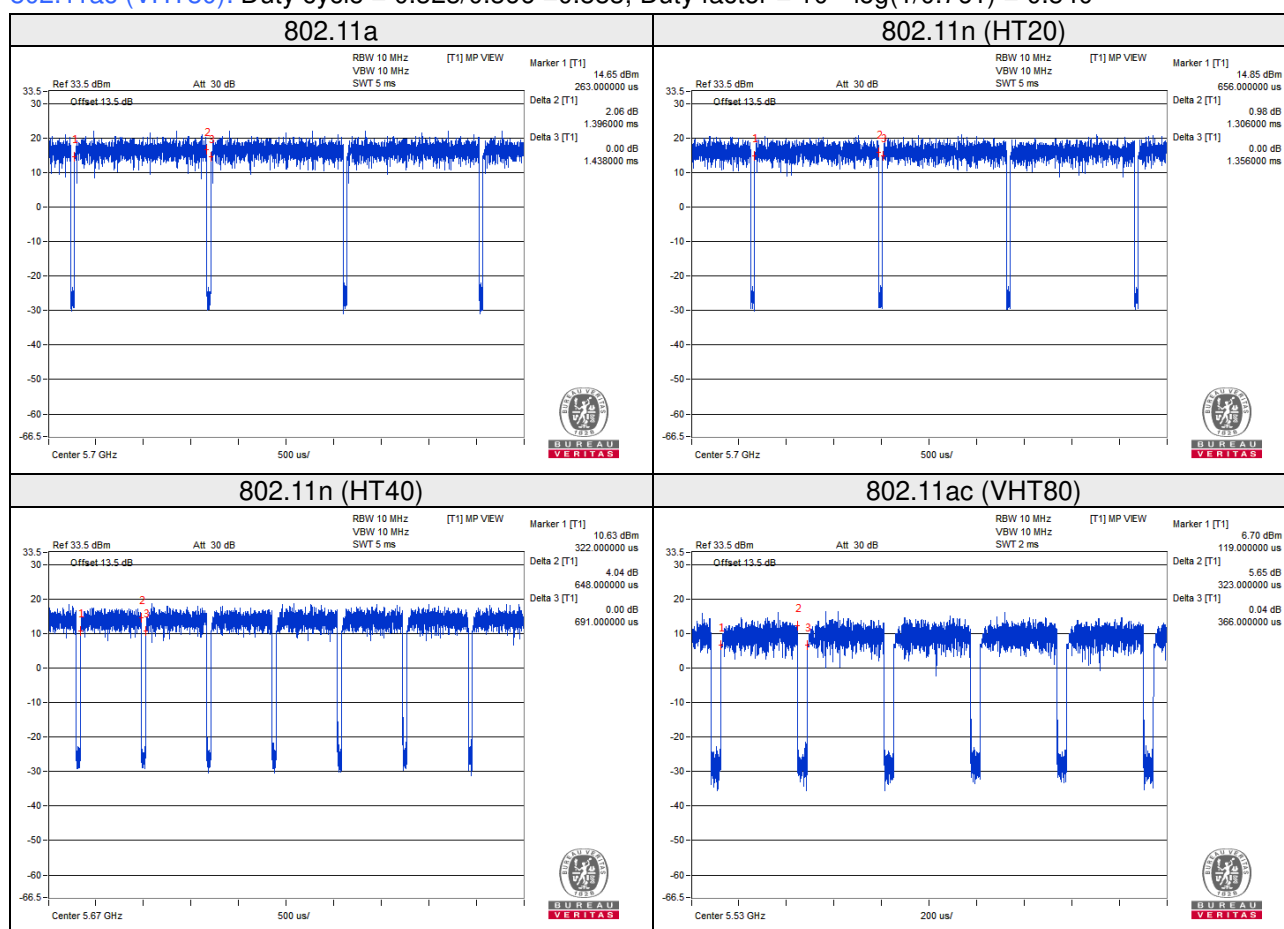
2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = $1.396/1.438 = 0.971$, Duty factor = $10 * \log(1/0.971) = 0.128$

802.11n (HT20): Duty cycle = $1.306/1.356 = 0.963$, Duty factor = $10 * \log(1/0.963) = 0.164$

802.11n (HT40): Duty cycle = $0.648/0.691 = 0.938$, Duty factor = $10 * \log(1/0.938) = 0.278$

802.11ac (VHT80): Duty cycle = $0.323/0.366 = 0.883$, Duty factor = $10 * \log(1/0.761) = 0.540$



2.4 DESCRIPTION OF SUPPORT UNITS

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

1	Adapter	DVE	DSA-60PEE-12	N/A	N/A
---	---------	-----	--------------	-----	-----

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Non-Detachable, 100cm; DC Line: Unshielded, Non-Detachable, 90cm, with one core
other	USB Cable: Shielded, Detachable, 80cm

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10-2013

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

3. TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTES:

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

3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v02r01	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

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

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

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

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

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

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 07,22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 09, 22
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 29,22
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 13,22
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	May 29,22
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 29,22
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	May 09, 22
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22,22
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	May 08,22
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Mar. 13,22
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	N/A

NOTES:

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

3.1.4 TEST PROCEDURES

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

NOTES:

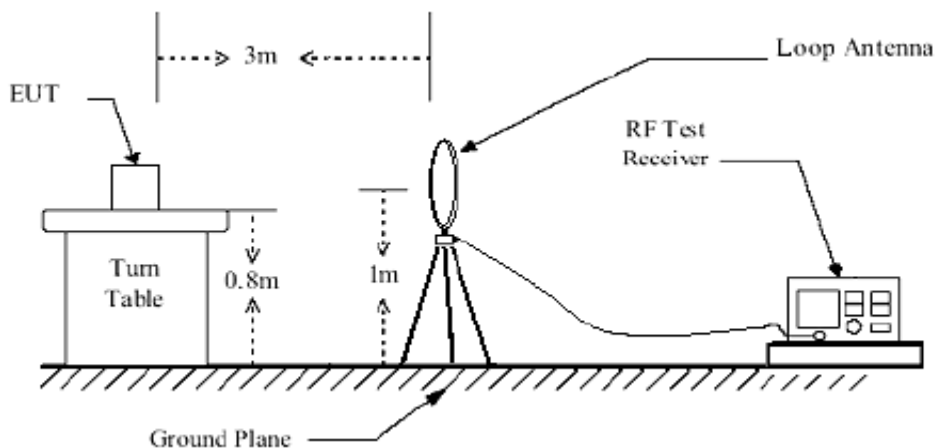
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

3.1.5 DEVIATION FROM TEST STANDARD

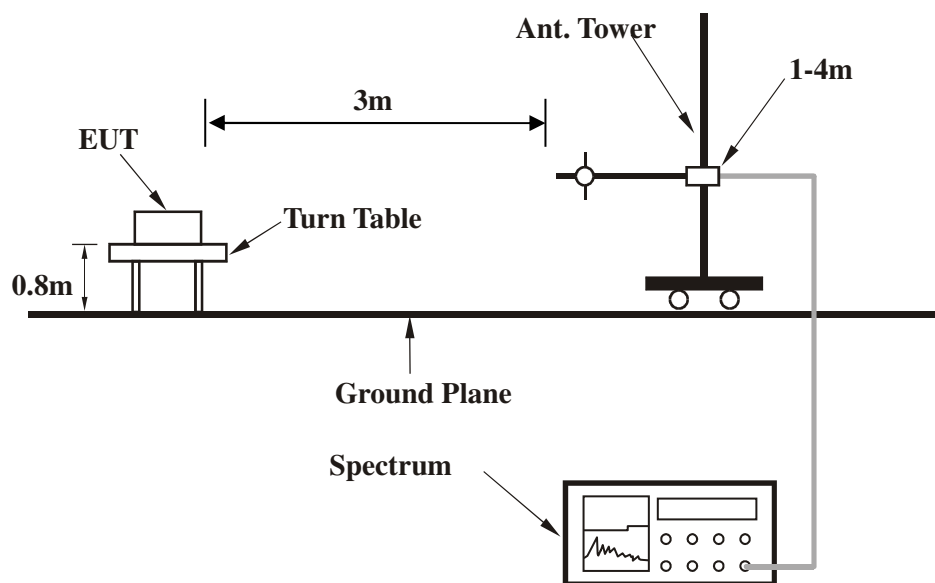
No deviation.

3.1.6 TEST SETUP

Below 30MHz

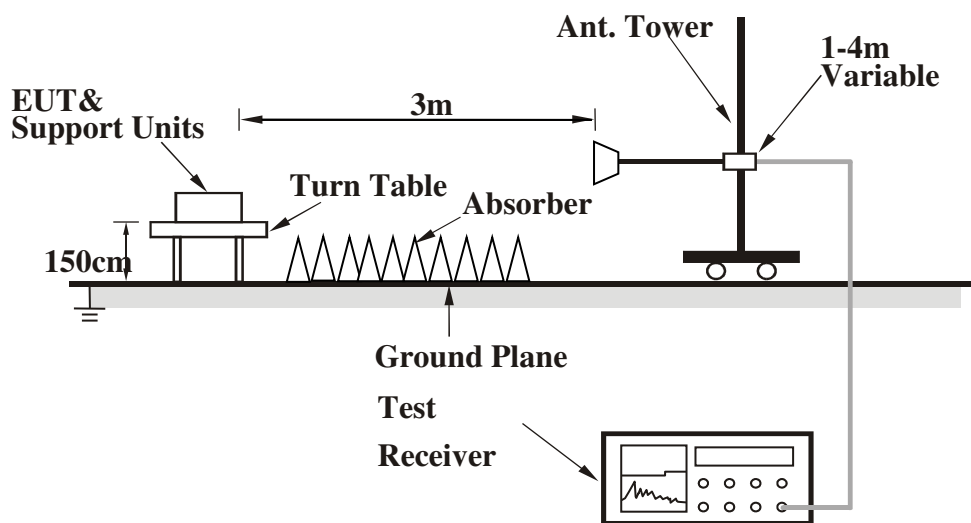


Below 1GHz test setup



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

Above 1GHz test setup



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

3.1.7 EUT OPERATING CONDITION

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

3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

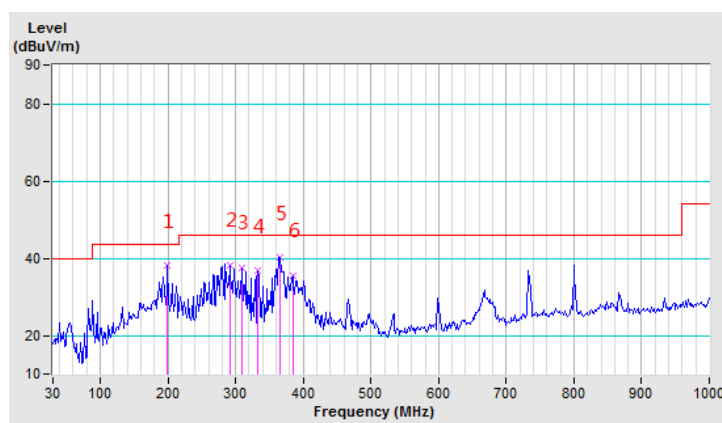
802.11a

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	199.44	37.98 QP	43.50	-5.52	1.00 H	0	57.11	-19.13
2	291.15	38.11 QP	46.00	-7.89	1.00 H	0	52.74	-14.63
3	309.81	37.60 QP	46.00	-8.40	1.00 H	360	51.44	-13.84
4	333.12	36.66 QP	46.00	-9.34	1.00 H	0	49.90	-13.24
5	365.77	40.06 QP	46.00	-5.94	1.00 H	351	52.21	-12.15
6	384.42	35.59 QP	46.00	-10.41	1.00 H	0	47.36	-11.77

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.

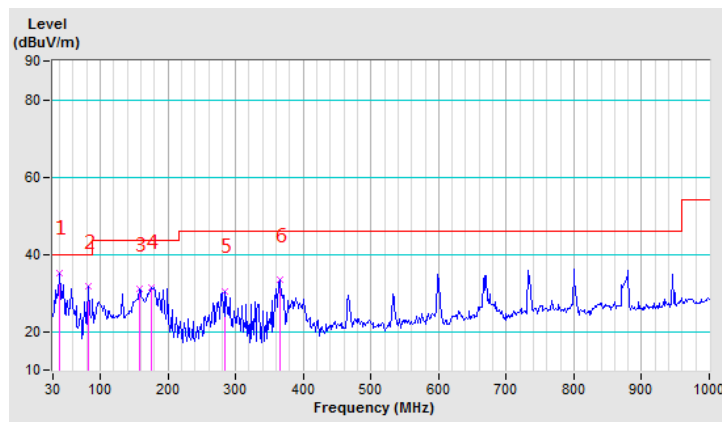


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

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	39.33	35.06 QP	40.00	-4.94	1.00 V	34	50.62	-15.56
2	82.85	31.58 QP	40.00	-8.42	1.00 V	4	53.28	-21.70
3	157.47	30.88 QP	43.50	-12.62	1.00 V	0	48.01	-17.13
4	176.12	31.47 QP	43.50	-12.03	1.00 V	47	49.96	-18.49
5	284.94	30.45 QP	46.00	-15.55	1.00 V	59	45.44	-14.99
6	365.77	33.30 QP	46.00	-12.70	1.00 V	70	45.45	-12.15

REMARKS:

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



ABOVE 1GHz DATA

Band 1 (5150-5250MHz): 802.11a

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

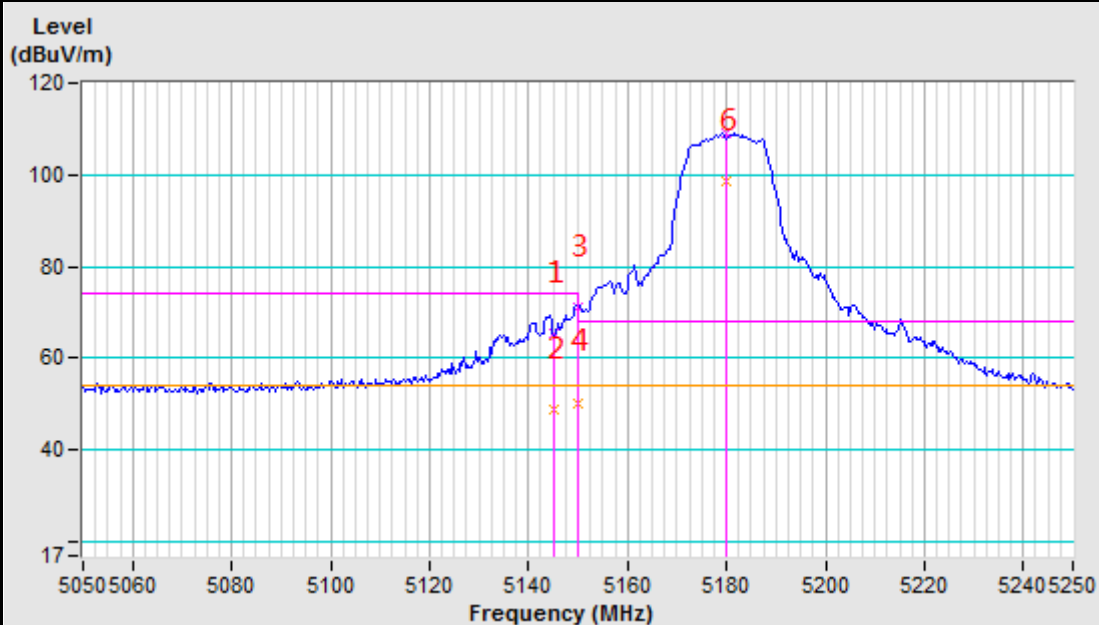
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	65.30 PK	74.00	-8.70	1.00 H	125	53.70	11.60
2	5145.00	48.81 AV	54.00	-5.19	1.00 H	125	37.21	11.60
3	5150.00	70.91 PK	74.00	-3.09	1.00 H	125	59.29	11.62
4	5150.00	50.21 AV	54.00	-3.79	1.00 H	125	38.59	11.62
5	*5180.00	108.97 PK			1.00 H	125	97.32	11.65
6	*5180.00	98.42 AV			1.00 H	125	86.77	11.65
7	#10360.00	54.12 PK	68.20	-14.08	1.00 H	0	33.74	20.38
8	15540.00	59.33 PK	74.00	-14.67	1.00 H	0	33.76	25.57
9	15540.00	45.21 AV	54.00	-8.79	1.00 H	0	19.64	25.57
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	58.25 PK	74.00	-15.75	1.00 V	125	46.65	11.60
2	5145.00	42.60 AV	54.00	-11.40	1.00 V	125	31.00	11.60
3	5150.00	62.22 PK	74.00	-11.78	1.00 V	125	50.60	11.62
4	5150.00	44.20 AV	54.00	-9.80	1.00 V	125	32.58	11.62
5	*5180.00	96.94 PK			1.00 V	125	85.29	11.65
6	*5180.00	86.95 AV			1.00 V	125	75.30	11.65
7	#10360.00	54.68 PK	68.20	-13.52	1.00 V	0	34.30	20.38
8	15540.00	58.33 PK	74.00	-15.67	1.00 V	0	32.76	25.57
9	15540.00	45.10 AV	54.00	-8.90	1.00 V	0	19.53	25.57

REMARKS:

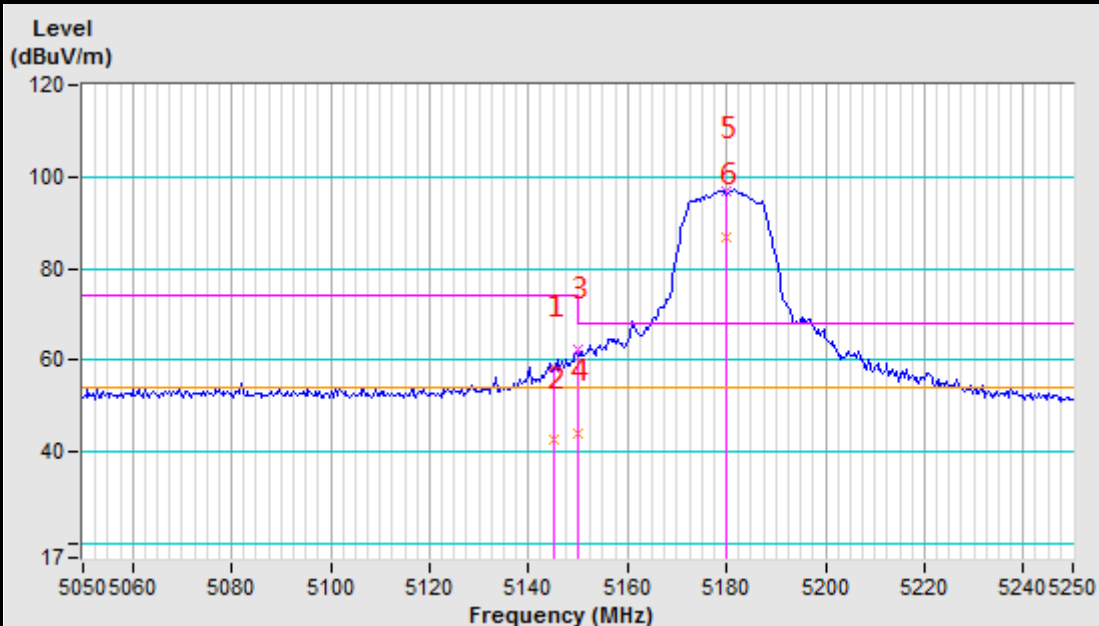
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

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	5145.00	56.20 PK	74.00	-17.80	1.00 H	147	44.60	11.60
2	5145.00	44.25 AV	54.00	-9.75	1.00 H	147	32.65	11.60
3	5150.00	57.67 PK	74.00	-16.33	1.00 H	147	46.05	11.62
4	5150.00	45.12 AV	54.00	-8.88	1.00 H	147	33.50	11.62
5	*5200.00	108.97 PK			1.00 H	147	97.28	11.69
6	*5200.00	98.67 AV			1.00 H	147	86.98	11.69
7	#10400.00	54.68 PK	68.20	-13.52	1.00 H	0	34.13	20.55
8	15600.00	58.47 PK	74.00	-15.53	1.00 H	0	32.80	25.67
9	15600.00	45.69 AV	54.00	-8.31	1.00 H	0	20.02	25.67
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	56.84 PK	74.00	-17.16	1.00 V	125	45.24	11.60
2	5145.00	42.00 AV	54.00	-12.00	1.00 V	125	30.40	11.60
3	5150.00	57.33 PK	74.00	-16.67	1.00 V	125	45.71	11.62
4	5150.00	42.25 AV	54.00	-11.75	1.00 V	125	30.63	11.62
5	*5200.00	96.54 PK			1.00 V	125	84.85	11.69
6	*5200.00	86.80 AV			1.00 V	125	75.11	11.69
7	#10400.00	54.38 PK	68.20	-13.82	1.00 V	0	33.83	20.55
8	15600.00	58.94 PK	74.00	-15.06	1.00 V	0	33.27	25.67
9	15600.00	45.21 AV	54.00	-8.79	1.00 V	0	19.54	25.67

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.

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	55.17 PK	74.00	-18.83	1.00 H	156	43.57	11.60
2	5145.00	42.01 AV	54.00	-11.99	1.00 H	156	30.41	11.60
3	5150.00	56.34 PK	74.00	-17.66	1.00 H	156	44.72	11.62
4	5150.00	43.54 AV	54.00	-10.46	1.00 H	156	31.92	11.62
5	*5240.00	108.55 PK			1.00 H	156	96.81	11.74
6	*5240.00	98.51 AV			1.00 H	156	86.77	11.74
7	5350.00	56.88 PK	74.00	-17.12	1.00 H	156	44.99	11.89
8	5350.00	44.17 AV	54.00	-9.83	1.00 H	156	32.28	11.89
9	5355.00	57.12 PK	74.00	-16.88	1.00 H	156	45.21	11.91
10	5355.00	44.10 AV	54.00	-9.90	1.00 H	156	32.19	11.91
11	#10480.00	54.33 PK	68.20	-13.87	1.00 H	156	33.45	20.88
12	15720.00	58.10 PK	74.00	-15.90	1.00 H	0	32.23	25.87
13	15720.00	45.36 AV	54.00	-8.64	1.00 H	0	19.49	25.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	55.84 PK	74.00	-18.16	1.00 V	123	44.24	11.60
2	5145.00	42.28 AV	54.00	-11.72	1.00 V	123	30.68	11.60
3	5150.00	57.33 PK	74.00	-16.67	1.00 V	123	45.71	11.62
4	5150.00	43.10 AV	54.00	-10.90	1.00 V	123	31.48	11.62
5	*5240.00	97.33 PK			1.00 V	123	85.59	11.74
6	*5240.00	87.52 AV			1.00 V	123	75.78	11.74
7	5350.00	57.64 PK	74.00	-16.36	1.00 V	123	45.75	11.89
8	5350.00	42.12 AV	54.00	-11.88	1.00 V	123	30.23	11.89
9	5355.00	56.32 PK	74.00	-17.68	1.00 V	123	44.41	11.91
10	5355.00	43.02 AV	54.00	-10.98	1.00 V	123	31.11	11.91
11	#10480.00	54.24 PK	68.20	-13.96	1.00 V	0	33.36	20.88
12	15720.00	58.21 PK	74.00	-15.79	1.00 V	0	32.34	25.87
13	15720.00	45.12 AV	54.00	-8.88	1.00 V	0	19.25	25.87

REMARKS:

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

802.11n (20MHz)

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

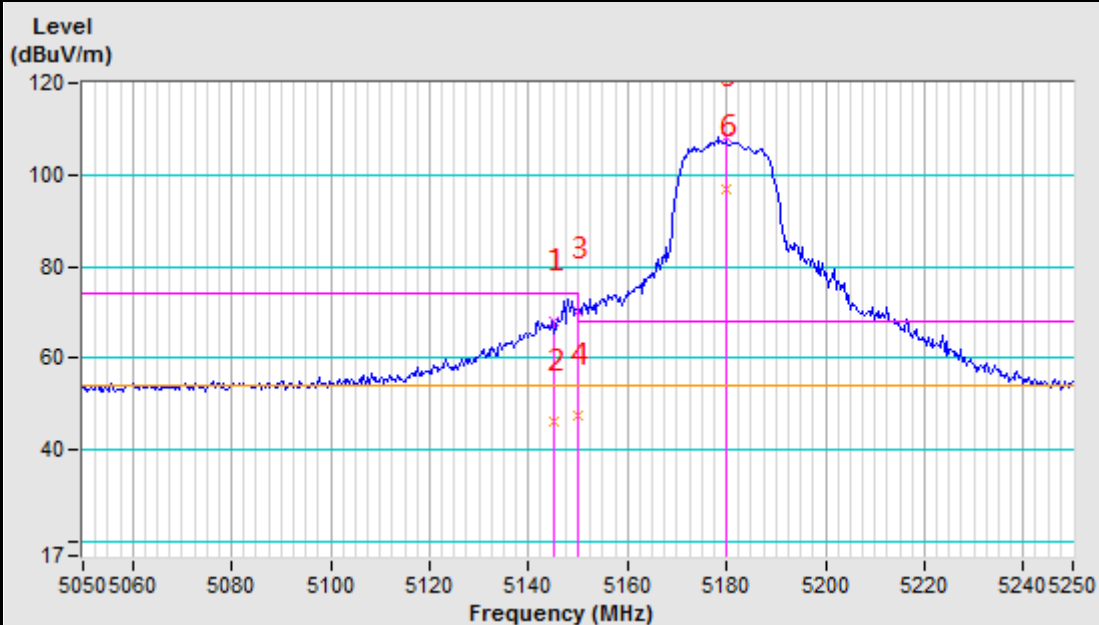
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	67.89 PK	74.00	-6.11	1.00 H	123	56.29	11.60
2	5145.00	46.08 AV	54.00	-7.92	1.00 H	123	34.48	11.60
3	5150.00	70.37 PK	74.00	-3.63	1.00 H	123	58.75	11.62
4	5150.00	47.40 AV	54.00	-6.60	1.00 H	123	35.78	11.62
5	*5180.00	108.04 PK			1.00 H	123	96.39	11.65
6	*5180.00	97.02 AV			1.00 H	123	85.37	11.65
7	#10360.00	54.67 PK	68.20	-13.53	1.00 H	0	34.29	20.38
8	15540.00	59.64 PK	74.00	-14.36	1.00 H	0	34.07	25.57
9	15540.00	45.67 AV	54.00	-8.33	1.00 H	0	20.10	25.57
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	56.40 PK	74.00	-17.60	1.00 V	125	44.80	11.60
2	5145.00	41.57 AV	54.00	-12.43	1.00 V	125	29.97	11.60
3	5150.00	56.21 PK	74.00	-17.79	1.00 V	125	44.59	11.62
4	5150.00	41.87 AV	54.00	-12.13	1.00 V	125	30.25	11.62
5	*5180.00	96.59 PK			1.00 V	125	84.94	11.65
6	*5180.00	86.33 AV			1.00 V	125	74.68	11.65
7	#10360.00	54.33 PK	68.20	-13.87	1.00 V	0	33.95	20.38
8	15540.00	58.69 PK	74.00	-15.31	1.00 V	0	33.12	25.57
9	15540.00	45.36 AV	54.00	-8.64	1.00 V	0	19.79	25.57

REMARKS:

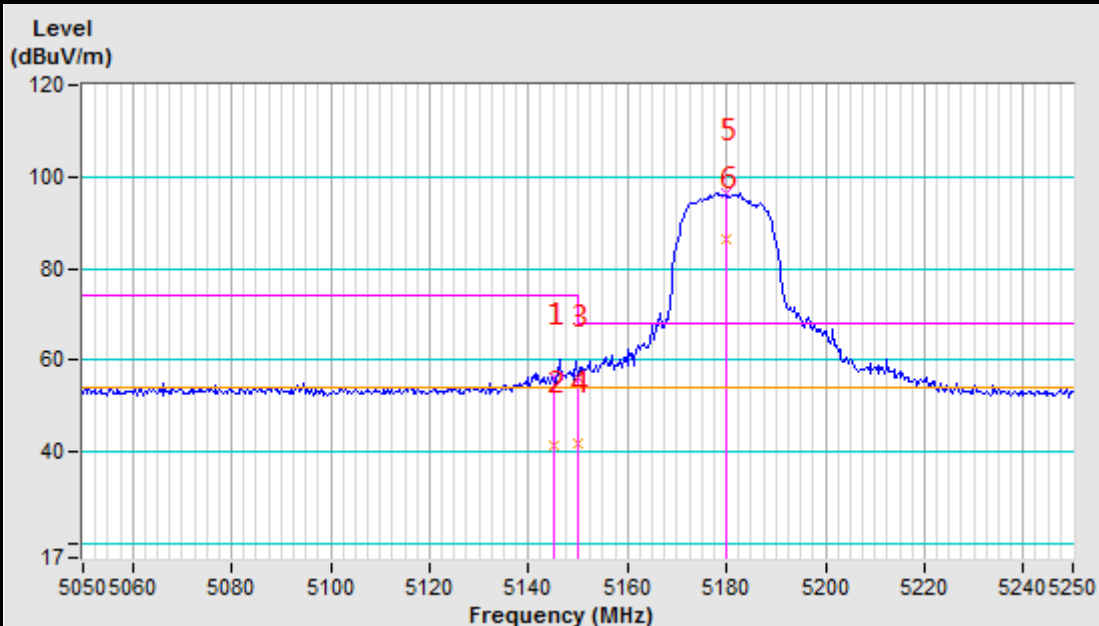
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

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	5145.00	54.39 PK	74.00	-19.61	1.00 H	147	42.79	11.60
2	5145.00	43.00 AV	54.00	-11.00	1.00 H	147	31.40	11.60
3	5150.00	55.83 PK	74.00	-18.17	1.00 H	147	44.21	11.62
4	5150.00	43.25 AV	54.00	-10.75	1.00 H	147	31.63	11.62
5	*5200.00	108.35 PK			1.00 H	147	96.66	11.69
6	*5200.00	98.44 AV			1.00 H	147	86.75	11.69
7	#10400.00	55.15 PK	68.20	-13.05	1.00 H	0	34.60	20.55
8	15600.00	59.33 PK	74.00	-14.67	1.00 H	0	33.66	25.67
9	15600.00	45.61 AV	54.00	-8.39	1.00 H	0	19.94	25.67
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	55.17 PK	74.00	-18.83	1.00 V	125	43.57	11.60
2	5145.00	43.28 AV	54.00	-10.72	1.00 V	125	31.68	11.60
3	5150.00	56.25 PK	74.00	-17.75	1.00 V	125	44.63	11.62
4	5150.00	44.24 AV	54.00	-9.76	1.00 V	125	32.62	11.62
5	*5200.00	96.34 PK			1.00 V	145	84.65	11.69
6	*5200.00	86.24 AV			1.00 V	145	74.55	11.69
7	#10400.00	54.21 PK	68.20	-13.99	1.00 V	0	33.66	20.55
8	15600.00	59.21 PK	74.00	-14.79	1.00 V	0	33.54	25.67
9	15600.00	45.67 AV	54.00	-8.33	1.00 V	0	20.00	25.67

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.

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	55.00 PK	74.00	-19.00	1.00 H	155	43.40	11.60
2	5145.00	44.96 AV	54.00	-9.04	1.00 H	155	33.36	11.60
3	5150.00	56.11 PK	74.00	-17.89	1.00 H	155	44.49	11.62
4	5150.00	45.54 AV	54.00	-8.46	1.00 H	155	33.92	11.62
5	*5240.00	108.55 PK			1.00 H	155	96.81	11.74
6	*5240.00	98.33 AV			1.00 H	155	86.59	11.74
7	5350.00	56.20 PK	74.00	-17.80	1.00 H	155	44.31	11.89
8	5350.00	45.47 AV	54.00	-8.53	1.00 H	155	33.58	11.89
9	5355.00	55.87 PK	74.00	-18.13	1.00 H	155	43.96	11.91
10	5355.00	45.26 AV	54.00	-8.74	1.00 H	155	33.35	11.91
11	#10480.00	54.22 PK	68.20	-13.98	1.00 H	0	33.34	20.88
12	15720.00	58.45 PK	74.00	-15.55	1.00 H	0	32.58	25.87
13	15720.00	45.39 AV	54.00	-8.61	1.00 H	0	19.52	25.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	55.97 PK	74.00	-18.03	1.00 V	146	44.37	11.60
2	5145.00	45.31 AV	54.00	-8.69	1.00 V	146	33.71	11.60
3	5150.00	56.24 PK	74.00	-17.76	1.00 V	146	44.62	11.62
4	5150.00	45.33 AV	54.00	-8.67	1.00 V	146	33.71	11.62
5	*5240.00	97.11 PK			1.00 V	146	85.37	11.74
6	*5240.00	87.25 AV			1.00 V	146	75.51	11.74
7	5350.00	56.45 PK	74.00	-17.55	1.00 V	146	44.56	11.89
8	5350.00	44.97 AV	54.00	-9.03	1.00 V	146	33.08	11.89
9	5355.00	54.97 PK	74.00	-19.03	1.00 V	0	43.06	11.91
10	5355.00	44.95 AV	54.00	-9.05	1.00 V	0	33.04	11.91
11	#10480.00	54.12 PK	68.20	-14.08	1.00 V	0	33.24	20.88
12	15720.00	58.67 PK	74.00	-15.33	1.00 V	0	32.80	25.87
13	15720.00	45.36 AV	54.00	-8.64	1.00 V	0	19.49	25.87

REMARKS:

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

802.11n (40MHz)

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

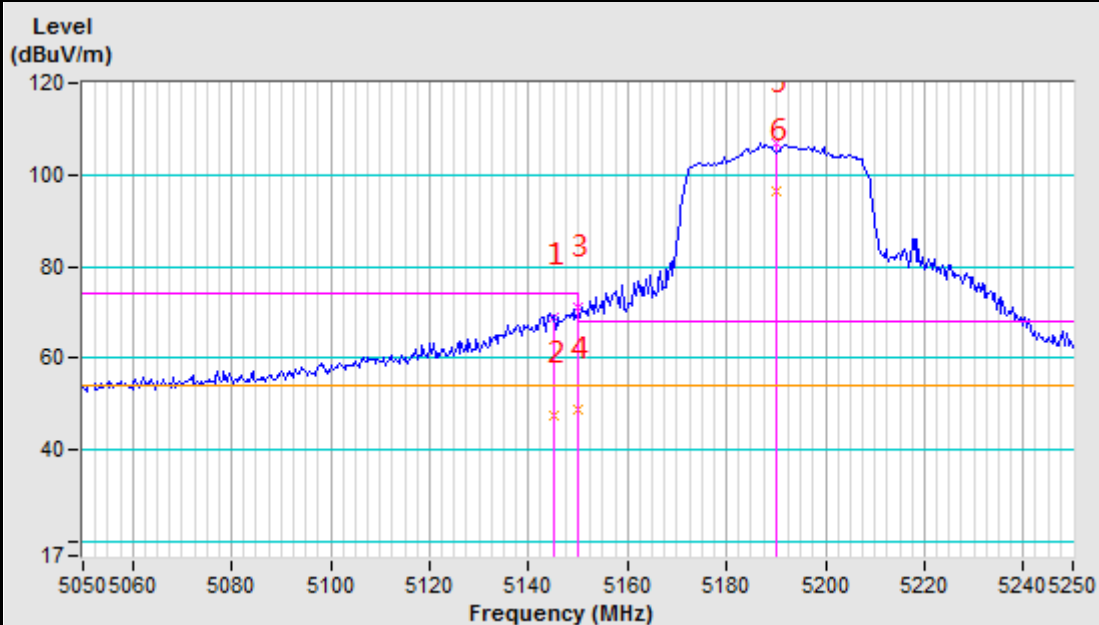
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	69.02 PK	74.00	-4.98	1.00 H	125	57.42	11.60
2	5145.00	47.65 AV	54.00	-6.35	1.00 H	125	36.05	11.60
3	5150.00	70.91 PK	74.00	-3.09	1.00 H	125	59.29	11.62
4	5150.00	48.72 AV	54.00	-5.28	1.00 H	125	37.10	11.62
5	*5190.00	106.79 PK			1.00 H	125	95.12	11.67
6	*5190.00	96.32 AV			1.00 H	125	84.65	11.67
7	#10380.00	54.12 PK	68.20	-14.08	1.00 H	0	33.65	20.47
8	15570.00	59.33 PK	74.00	-14.67	1.00 H	0	33.70	25.63
9	15570.00	45.25 AV	54.00	-8.75	1.00 H	0	19.62	25.63
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	5145.00	53.92 PK	74.00	-20.08	1.00 V	147	42.32	11.60
2	5145.00	41.25 AV	54.00	-12.75	1.00 V	147	29.65	11.60
3	5150.00	56.55 PK	74.00	-17.45	1.00 V	147	44.93	11.62
4	5150.00	43.25 AV	54.00	-10.75	1.00 V	147	31.63	11.62
5	*5190.00	94.93 PK			1.00 V	147	83.26	11.67
6	*5190.00	86.54 AV			1.00 V	147	74.87	11.67
7	#10380.00	54.25 PK	68.20	-13.95	1.00 V	0	33.78	20.47
8	15570.00	59.66 PK	74.00	-14.34	1.00 V	0	34.03	25.63
9	15570.00	46.27 AV	54.00	-7.73	1.00 V	0	20.64	25.63

REMARKS:

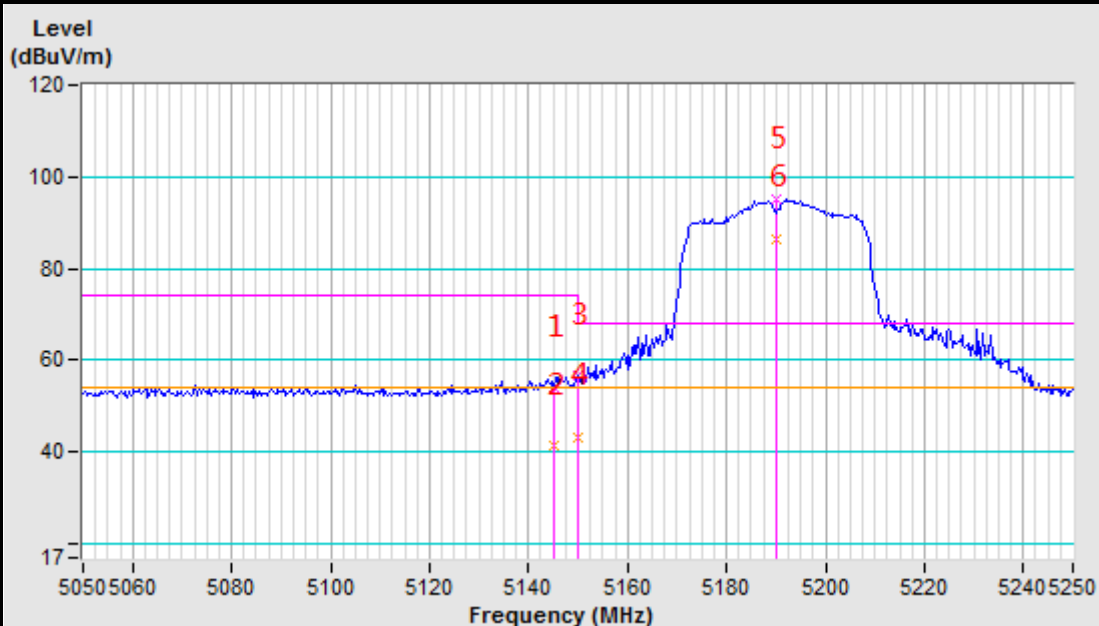
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

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	55.58 PK	74.00	-18.42	1.00 H	146	43.98	11.60
2	5145.00	43.24 AV	54.00	-10.76	1.00 H	146	31.64	11.60
3	5150.00	57.88 PK	74.00	-16.12	1.00 H	146	46.26	11.62
4	5150.00	43.65 AV	54.00	-10.35	1.00 H	146	32.03	11.62
5	*5230.00	108.65 PK			1.00 H	146	96.93	11.72
6	*5230.00	98.77 AV			1.00 H	146	87.05	11.72
7	#10460.00	54.24 PK	68.20	-13.96	1.00 H	0	33.44	20.80
8	15690.00	58.45 PK	74.00	-15.55	1.00 H	0	32.63	25.82
9	15690.00	45.36 AV	54.00	-8.64	1.00 H	0	19.54	25.82
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	56.68 PK	74.00	-17.32	1.00 V	125	45.08	11.60
2	5145.00	45.21 AV	54.00	-8.79	1.00 V	125	33.61	11.60
3	5150.00	57.88 PK	74.00	-16.12	1.00 V	125	46.26	11.62
4	5150.00	45.36 AV	54.00	-8.64	1.00 V	125	33.74	11.62
5	*5230.00	95.37 PK			1.00 V	125	83.65	11.72
6	*5230.00	86.11 AV			1.00 V	125	74.39	11.72
7	#10460.00	54.25 PK	68.20	-13.95	1.00 V	0	33.45	20.80
8	15690.00	58.74 PK	74.00	-15.26	1.00 V	0	32.92	25.82
9	15690.00	45.63 AV	54.00	-8.37	1.00 V	0	19.81	25.82

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were 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.: RF2106WDG0376-4

802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	66.91 PK	74.00	-7.09	1.00 H	147	55.31	11.60
2	5145.00	43.68 AV	54.00	-10.32	1.00 H	147	32.08	11.60
3	5150.00	67.88 PK	74.00	-6.12	1.00 H	147	56.26	11.62
4	5150.00	43.57 AV	54.00	-10.43	1.00 H	147	31.95	11.62
5	*5210.00	104.08 PK			1.00 H	147	92.38	11.70
6	*5210.00	91.47 AV			1.00 H	147	79.77	11.70
7	#10420.00	54.89 PK	68.20	-13.31	1.00 H	0	34.25	20.64
8	15630.00	58.44 PK	74.00	-15.56	1.00 H	0	32.72	25.72
9	15630.00	45.36 AV	54.00	-8.64	1.00 H	0	19.64	25.72
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	54.29 PK	74.00	-19.71	1.00 V	125	42.69	11.60
2	5145.00	42.25 AV	54.00	-11.75	1.00 V	125	30.65	11.60
3	5150.00	54.82 PK	74.00	-19.18	1.00 V	125	43.20	11.62
4	5150.00	43.21 AV	54.00	-10.79	1.00 V	125	31.59	11.62
5	*5210.00	92.31 PK			1.00 V	125	80.61	11.70
6	*5210.00	80.10 AV			1.00 V	125	68.40	11.70
7	#10420.00	55.10 PK	68.20	-13.10	1.00 V	0	34.46	20.64
8	15630.00	59.27 PK	74.00	-14.73	1.00 V	0	33.55	25.72
9	15630.00	46.25 AV	54.00	-7.75	1.00 V	0	20.53	25.72

REMARKS:

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

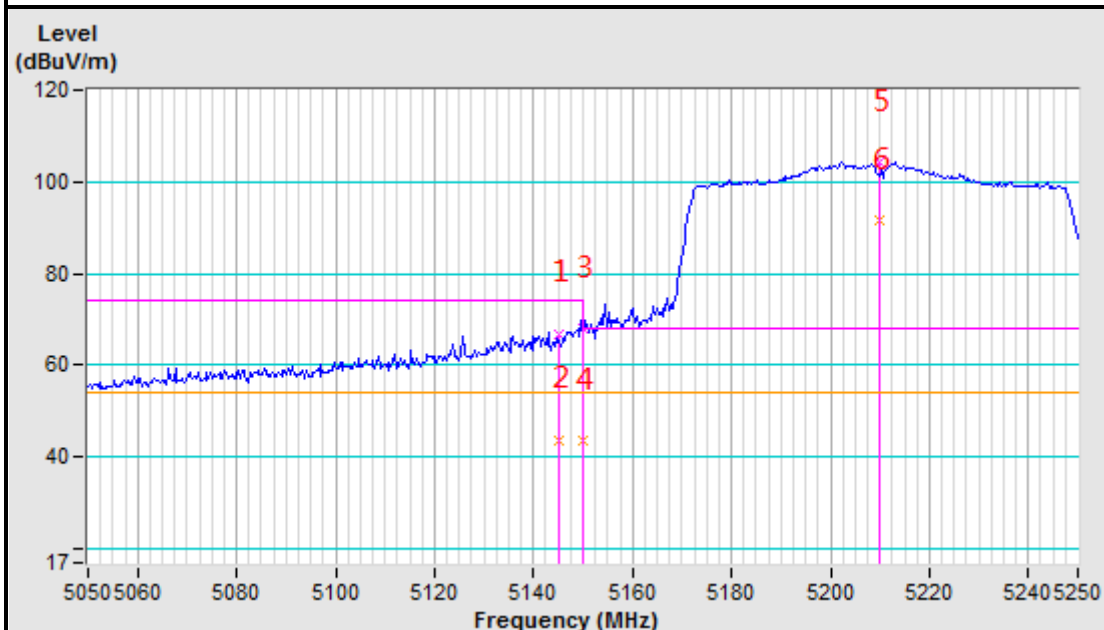


BUREAU
VERITAS

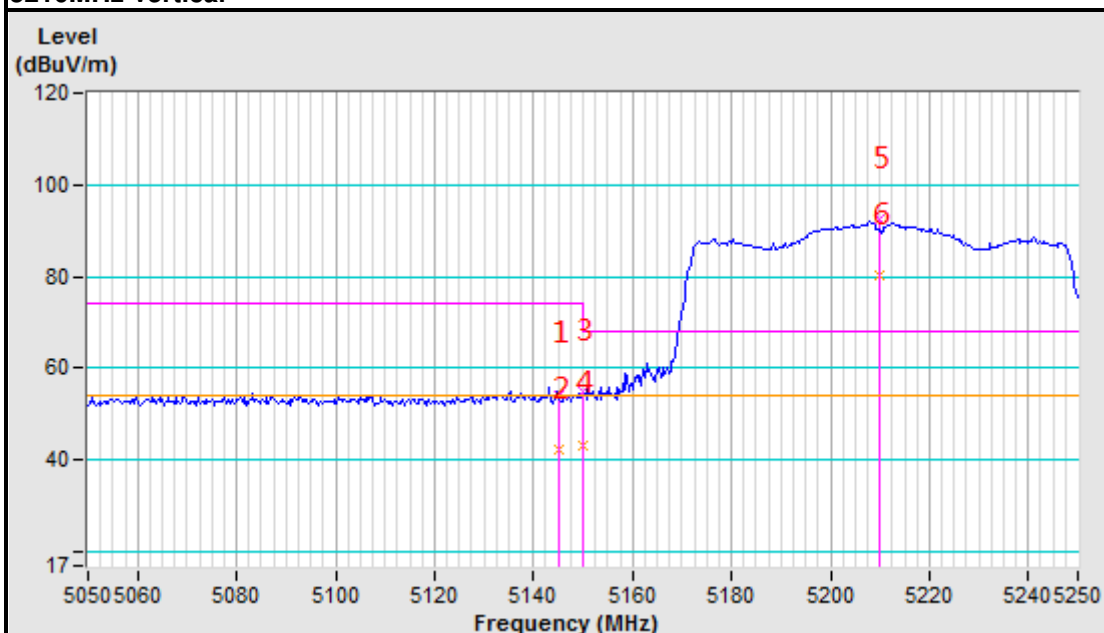
Test Report No.: RF2106WDG0376-4

Band edge Plot

5210MHz Horizontal



5210MHz Vertical





**BUREAU
VERITAS**

Test Report No.: RF2106WDG0376-4

Band 2 (5250-5350MHz): 802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	51.30 PK	74.00	-22.70	1.00 H	125	39.70	11.60
2	5145.00	41.50 AV	54.00	-12.50	1.00 H	125	29.90	11.60
3	5150.00	53.36 PK	74.00	-20.64	1.00 H	125	41.74	11.62
4	5150.00	41.38 AV	54.00	-12.62	1.00 H	125	29.76	11.62
5	*5260.00	110.90 PK			1.00 H	125	99.13	11.77
6	*5260.00	100.52 AV			1.00 H	125	88.75	11.77
7	5350.00	54.28 PK	74.00	-19.72	1.00 H	125	42.39	11.89
8	5350.00	43.25 AV	54.00	-10.75	1.00 H	125	31.36	11.89
9	5355.00	54.82 PK	74.00	-19.18	1.00 H	125	42.91	11.91
10	5355.00	43.11 AV	54.00	-10.89	1.00 H	125	31.20	11.91
11	#10520.00	54.38 PK	68.20	-13.82	1.00 H	0	33.36	21.02
12	15780.00	58.21 PK	74.00	-15.79	1.00 H	0	32.25	25.96
13	15780.00	45.33 AV	54.00	-8.67	1.00 H	0	19.37	25.96
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	53.20 PK	74.00	-20.80	1.00 V	125	41.60	11.60
2	5145.00	42.11 AV	54.00	-11.89	1.00 V	125	30.51	11.60
3	5150.00	53.45 PK	74.00	-20.55	1.00 V	125	41.83	11.62
4	5150.00	42.54 AV	54.00	-11.46	1.00 V	125	30.92	11.62
5	*5260.00	102.44 PK			1.00 V	125	90.67	11.77
6	*5260.00	92.84 AV			1.00 V	125	81.07	11.77
7	5350.00	54.45 PK	74.00	-19.55	1.00 V	125	42.56	11.89
8	5350.00	42.84 AV	54.00	-11.16	1.00 V	125	30.95	11.89
9	5355.00	53.87 PK	74.00	-20.13	1.00 V	125	41.96	11.91
10	5355.00	42.00 AV	54.00	-12.00	1.00 V	125	30.09	11.91
11	#10520.00	53.85 PK	68.20	-14.35	1.00 V	0	33.93	19.92
12	15780.00	58.64 PK	74.00	-15.36	1.00 V	0	32.68	25.96
13	15780.00	45.31 AV	54.00	-8.69	1.00 V	0	19.35	25.96

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.

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

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

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@bureauveritas.com

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	113.25 PK			1.00 H	155	101.43	11.82
2	*5300.00	103.57 AV			1.00 H	155	91.75	11.82
3	5350.00	59.64 PK	74.00	-14.36	1.00 H	155	47.75	11.89
4	5350.00	47.88 AV	54.00	-6.12	1.00 H	155	35.99	11.89
5	5355.00	57.25 PK	74.00	-16.75	1.00 H	155	45.34	11.91
6	5355.00	46.89 AV	54.00	-7.11	1.00 H	155	34.98	11.91
7	10600.00	54.33 PK	74.00	-19.67	1.00 H	0	33.13	21.20
8	10600.00	42.18 AV	54.00	-11.82	1.00 H	0	20.98	21.20
9	15900.00	58.94 PK	74.00	-15.06	1.00 H	0	32.78	26.16
10	15900.00	45.67 AV	54.00	-8.33	1.00 H	0	19.51	26.16
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	103.84 PK			1.00 V	123	92.02	11.82
2	*5300.00	95.00 AV			1.00 V	123	83.18	11.82
3	5350.00	54.85 PK	74.00	-19.15	1.00 V	123	42.96	11.89
4	5350.00	43.66 AV	54.00	-10.34	1.00 V	123	31.77	11.89
5	5355.00	54.11 PK	74.00	-19.89	1.00 V	123	42.20	11.91
6	5355.00	42.86 AV	54.00	-11.14	1.00 V	123	30.95	11.91
7	10600.00	54.21 PK	74.00	-19.79	1.00 V	0	33.01	21.20
8	10600.00	42.08 AV	54.00	-11.92	1.00 V	0	20.88	21.20
9	15900.00	58.54 PK	74.00	-15.46	1.00 V	0	32.38	26.16
10	15900.00	45.33 AV	54.00	-8.67	1.00 V	0	19.17	26.16

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.

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

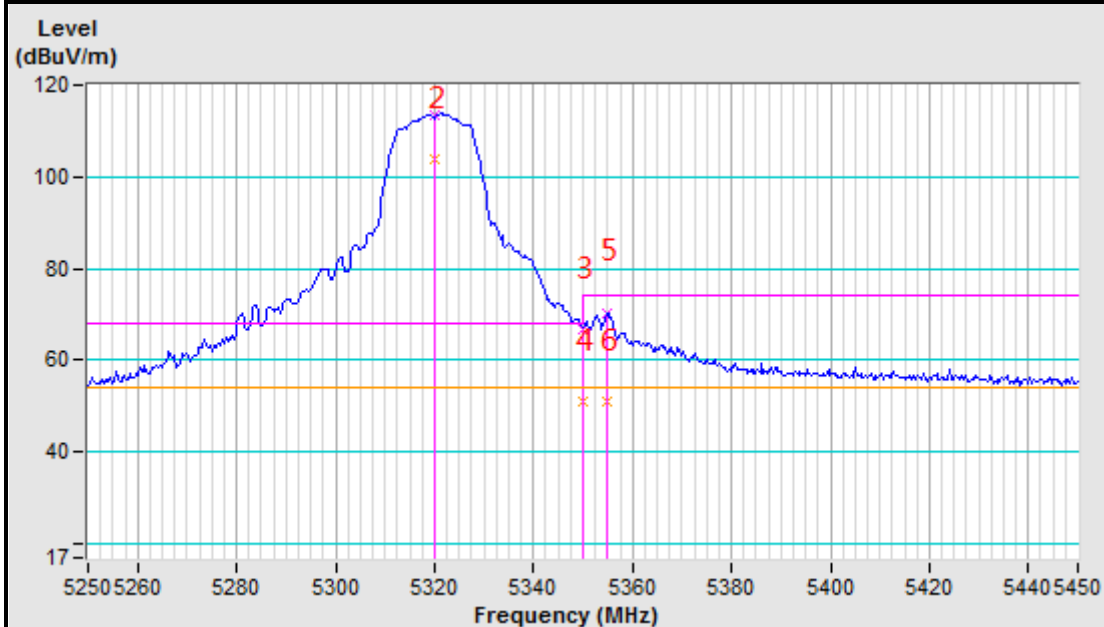
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	113.25 PK			1.00 H	123	101.39	11.86
2	*5320.00	103.72 AV			1.00 H	123	91.86	11.86
3	5350.00	66.59 PK	74.00	-7.41	1.00 H	123	54.70	11.89
4	5350.00	51.00 AV	54.00	-3.00	1.00 H	123	39.11	11.89
5	5355.00	70.43 PK	74.00	-3.57	1.00 H	123	58.52	11.91
6	5355.00	50.89 AV	54.00	-3.11	1.00 H	123	38.98	11.91
7	10640.00	54.11 PK	74.00	-19.89	1.00 H	0	32.82	21.29
8	10640.00	43.25 AV	54.00	-10.75	1.00 H	0	21.96	21.29
9	15960.00	58.07 PK	74.00	-15.93	1.00 H	0	31.81	26.26
10	15960.00	45.00 AV	54.00	-9.00	1.00 H	0	18.74	26.26
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	104.11 PK			1.00 V	124	92.25	11.86
2	*5320.00	95.51 AV			1.00 V	124	83.65	11.86
3	5350.00	58.73 PK	74.00	-15.27	1.00 V	124	46.84	11.89
4	5350.00	46.40 AV	54.00	-7.60	1.00 V	124	34.51	11.89
5	5355.00	58.91 PK	74.00	-15.09	1.00 V	124	47.00	11.91
6	5355.00	45.58 AV	54.00	-8.42	1.00 V	124	33.67	11.91
7	10640.00	53.95 PK	74.00	-20.05	1.00 V	0	32.66	21.29
8	10640.00	42.56 AV	54.00	-11.44	1.00 V	0	21.27	21.29
9	15960.00	58.73 PK	74.00	-15.27	1.00 V	0	32.47	26.26
10	15960.00	45.25 AV	54.00	-8.75	1.00 V	0	18.99	26.26

REMARKS:

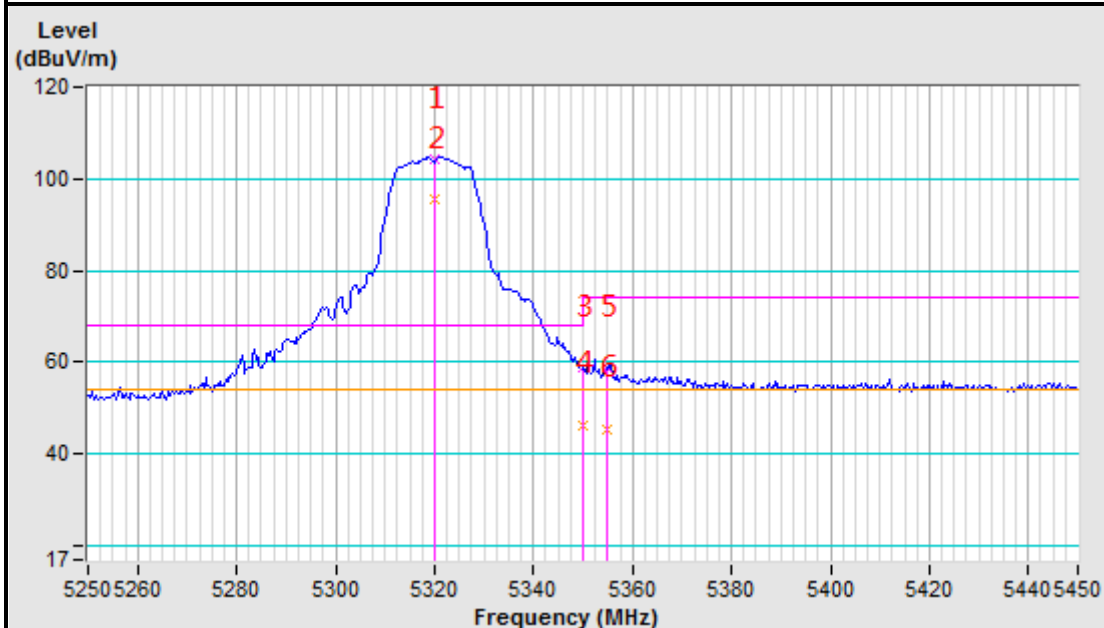
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

Band edge Plot

5320MHz Horizontal



5320MHz Vertical





**BUREAU
VERITAS**

Test Report No.: RF2106WDG0376-4

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	5150.00	56.24 PK	74.00	-17.76	1.00 H	125	44.62	11.62
2	5150.00	42.55 AV	54.00	-11.45	1.00 H	125	30.93	11.62
3	#5155.00	55.15 PK	68.20	-13.05	1.00 H	125	43.53	11.62
4	*5260.00	110.81 PK			1.00 H	125	99.04	11.77
5	*5260.00	99.12 AV			1.00 H	125	87.35	11.77
6	5350.00	56.73 PK	74.00	-17.27	1.00 H	125	44.84	11.89
7	5350.00	44.84 AV	54.00	-9.16	1.00 H	125	32.95	11.89
8	5355.00	56.25 PK	74.00	-17.75	1.00 H	125	44.34	11.91
9	5355.00	44.10 AV	54.00	-9.90	1.00 H	125	32.19	11.91
10	#10520.00	54.10 PK	68.20	-14.10	1.00 H	0	33.08	21.02
11	15780.00	59.21 PK	74.00	-14.79	1.00 H	0	33.25	25.96
12	15780.00	46.00 AV	54.00	-8.00	1.00 H	0	20.04	25.96
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	56.86 PK	74.00	-17.14	1.00 V	125	45.26	11.60
2	5145.00	44.08 AV	54.00	-9.92	1.00 V	125	32.48	11.60
3	5150.00	57.33 PK	74.00	-16.67	1.00 V	125	45.71	11.62
4	5150.00	44.89 AV	54.00	-9.11	1.00 V	125	33.27	11.62
5	*5260.00	102.87 PK			1.00 V	125	91.10	11.77
6	*5260.00	95.14 AV			1.00 V	125	83.37	11.77
7	5350.00	57.65 PK	74.00	-16.35	1.00 V	125	45.76	11.89
8	5350.00	43.68 AV	54.00	-10.32	1.00 V	125	31.79	11.89
9	5355.00	55.02 PK	74.00	-18.98	1.00 V	125	43.11	11.91
10	5355.00	44.02 AV	54.00	-9.98	1.00 V	125	32.11	11.91
11	#10520.00	54.35 PK	68.20	-13.85	1.00 V	0	33.33	21.02
12	15780.00	58.91 PK	74.00	-15.09	1.00 V	0	32.95	25.96
13	15780.00	45.24 AV	54.00	-8.76	1.00 V	0	19.28	25.96

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.

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

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

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@bureauveritas.com

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	113.02 PK			1.00 H	145	101.20	11.82
2	*5300.00	103.20 AV			1.00 H	145	91.38	11.82
3	5350.00	56.87 PK	74.00	-17.13	1.00 H	145	44.98	11.89
4	5350.00	43.21 AV	54.00	-10.79	1.00 H	145	31.32	11.89
5	5355.00	55.84 PK	74.00	-18.16	1.00 H	125	43.93	11.91
6	5355.00	42.54 AV	54.00	-11.46	1.00 H	145	30.63	11.91
7	10600.00	54.32 PK	74.00	-19.68	1.00 H	0	33.12	21.20
8	10600.00	42.20 AV	54.00	-11.80	1.00 H	0	21.00	21.20
9	15900.00	58.54 PK	74.00	-15.46	1.00 H	0	32.38	26.16
10	15900.00	45.11 AV	54.00	-8.89	1.00 H	0	18.95	26.16
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	102.33 PK			1.00 V	145	90.51	11.82
2	*5300.00	95.20 AV			1.00 V	145	83.38	11.82
3	5350.00	56.55 PK	74.00	-17.45	1.00 V	145	44.66	11.89
4	5350.00	42.20 AV	54.00	-11.80	1.00 V	145	30.31	11.89
5	5355.00	54.39 PK	74.00	-19.61	1.00 V	125	42.48	11.91
6	5355.00	42.20 AV	54.00	-11.80	1.00 V	145	30.29	11.91
7	10600.00	54.10 PK	74.00	-19.90	1.00 V	0	32.90	21.20
8	10600.00	42.33 AV	54.00	-11.67	1.00 V	0	21.13	21.20
9	15900.00	59.00 PK	74.00	-15.00	1.00 V	0	32.84	26.16
10	15900.00	44.36 AV	54.00	-9.64	1.00 V	0	18.20	26.16

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.

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

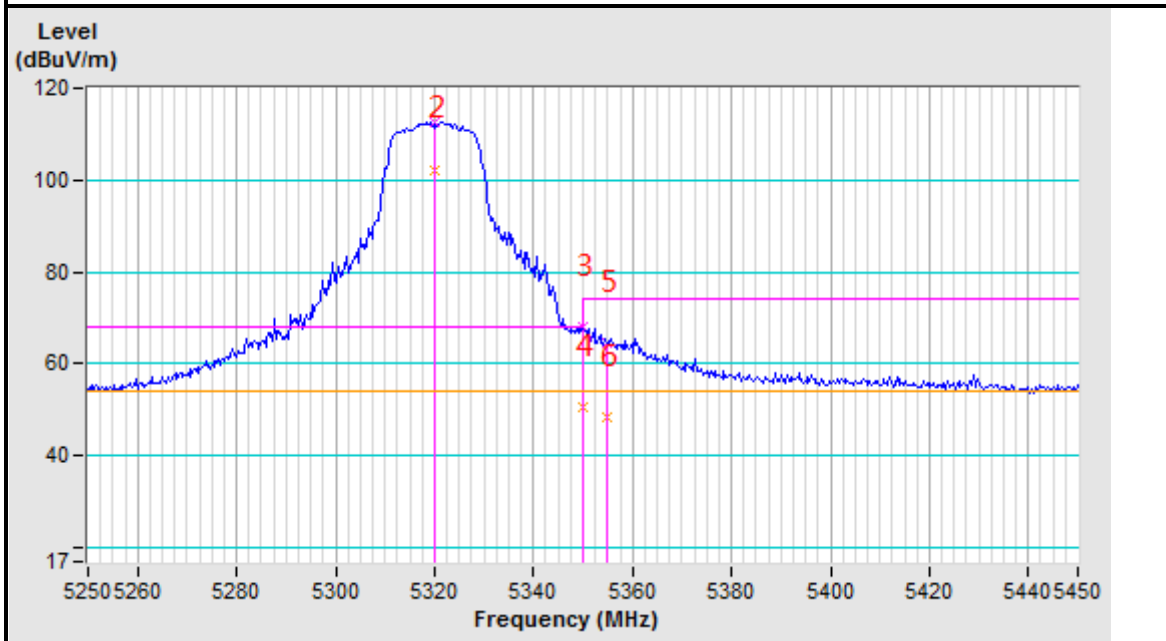
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.57 PK			1.00 H	125	100.71	11.86
2	*5320.00	102.18 AV			1.00 H	125	90.32	11.86
3	5350.00	68.08 PK	74.00	-5.92	1.00 H	125	56.19	11.89
4	5350.00	50.54 AV	54.00	-3.46	1.00 H	125	38.65	11.89
5	5355.00	64.46 PK	74.00	-9.54	1.00 H	125	52.55	11.91
6	5355.00	48.33 AV	54.00	-5.67	1.00 H	125	36.42	11.91
7	10640.00	54.28 PK	74.00	-19.72	1.00 H	0	32.99	21.29
8	10640.00	43.17 AV	54.00	-10.83	1.00 H	0	21.88	21.29
9	15960.00	58.25 PK	74.00	-15.75	1.00 H	0	31.99	26.26
10	15960.00	45.20 AV	54.00	-8.80	1.00 H	0	18.94	26.26
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.59 PK			1.00 V	110	93.73	11.86
2	*5320.00	94.76 AV			1.00 V	110	82.90	11.86
3	5350.00	57.59 PK	74.00	-16.41	1.00 V	110	45.70	11.89
4	5350.00	44.70 AV	54.00	-9.30	1.00 V	110	32.81	11.89
5	5355.00	57.16 PK	74.00	-16.84	1.00 V	110	45.25	11.91
6	5355.00	44.07 AV	54.00	-9.93	1.00 V	110	32.16	11.91
7	10640.00	53.84 PK	74.00	-20.16	1.00 V	0	32.55	21.29
8	10640.00	41.20 AV	54.00	-12.80	1.00 V	0	19.91	21.29
9	15960.00	58.91 PK	74.00	-15.09	1.00 V	0	32.65	26.26
10	15960.00	45.39 AV	54.00	-8.61	1.00 V	0	19.13	26.26

REMARKS:

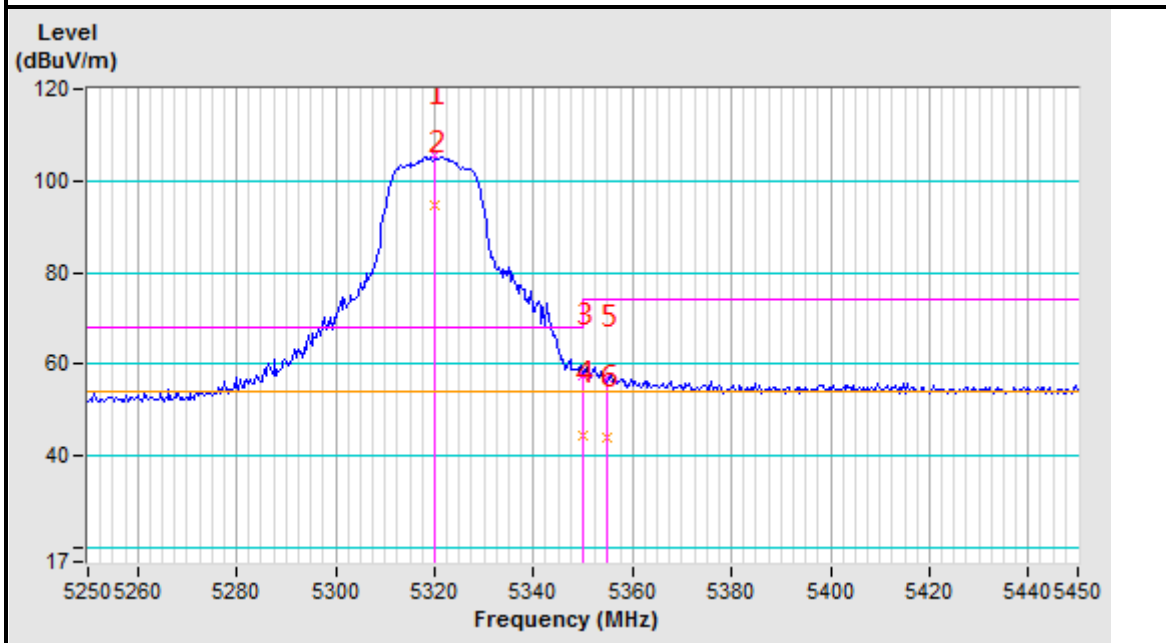
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

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	100.94 PK			1.00 H	58	89.15	11.79
2	*5270.00	90.35 AV			1.00 H	58	78.56	11.79
3	5350.00	54.56 PK	74.00	-19.44	1.00 H	58	42.67	11.89
4	5350.00	44.87 AV	54.00	-9.13	1.00 H	58	32.98	11.89
5	5352.26	55.51 PK	74.00	-18.49	1.00 H	58	43.61	11.90
6	5352.26	43.34 AV	54.00	-10.66	1.00 H	58	31.44	11.90
7	#10540.00	56.69 PK	68.20	-11.51	1.00 H	0	35.63	21.06
8	15810.00	58.51 PK	74.00	-15.49	1.00 H	0	32.50	26.01
9	15810.00	44.47 AV	54.00	-9.53	1.00 H	0	18.46	26.01
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	93.85 PK			1.00 V	126	82.06	11.79
2	*5270.00	82.74 AV			1.00 V	126	70.95	11.79
3	5350.00	52.09 PK	74.00	-21.91	1.00 V	126	40.20	11.89
4	5350.00	41.37 AV	54.00	-12.63	1.00 V	126	29.48	11.89
5	5351.26	53.02 PK	74.00	-20.98	1.00 V	126	41.12	11.90
6	5351.26	41.46 AV	54.00	-12.54	1.00 V	126	29.56	11.90
7	#10540.00	54.26 PK	68.20	-13.94	1.00 V	0	33.20	21.06
8	15810.00	56.62 PK	74.00	-17.38	1.00 V	0	30.61	26.01
9	15810.00	42.36 AV	54.00	-11.64	1.00 V	0	16.35	26.01

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)

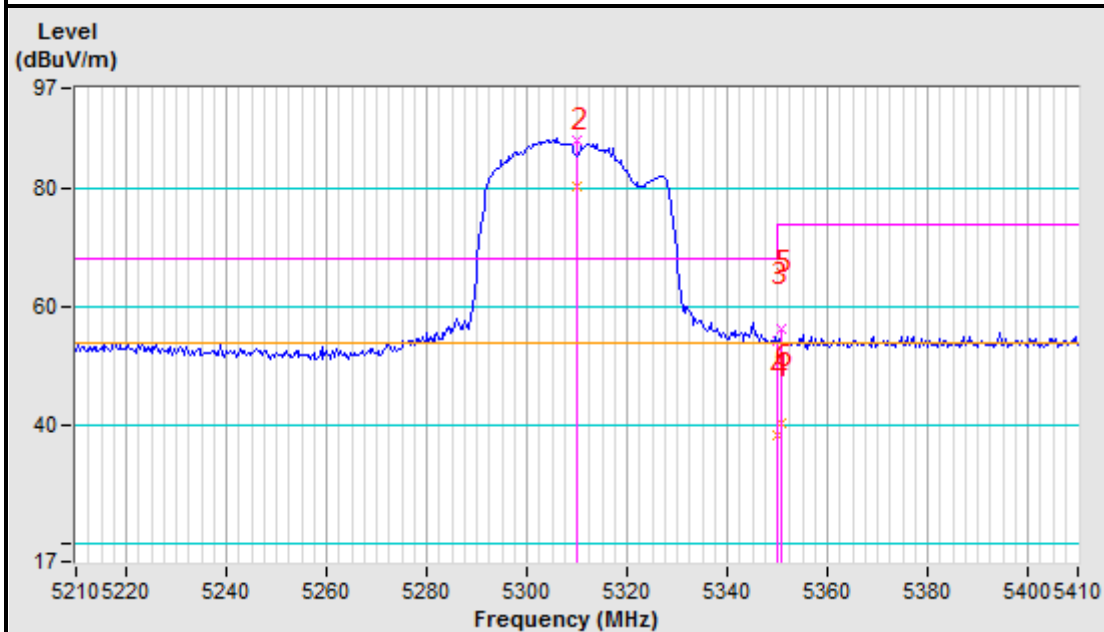
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	88.12 PK			1.00 H	166	76.28	11.84
2	*5310.00	80.26 AV			1.00 H	166	68.42	11.84
3	5350.00	54.13 PK	74.00	-19.87	1.00 H	166	42.24	11.89
4	5350.00	38.51 AV	54.00	-15.49	1.00 H	166	26.62	11.89
5	5350.96	56.20 PK	74.00	-17.80	1.00 H	166	44.30	11.90
6	5350.96	40.26 AV	54.00	-13.74	1.00 H	166	28.36	11.90
7	10620.00	55.86 PK	74.00	-18.14	1.00 H	0	34.62	21.24
8	10620.00	44.96 AV	54.00	-9.04	1.00 H	0	23.72	21.24
9	15930.00	57.52 PK	74.00	-16.48	1.00 H	0	31.32	26.20
10	15930.00	46.59 AV	54.00	-7.41	1.00 H	0	20.39	26.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	97.08 PK			1.00 V	54	85.24	11.84
2	*5310.00	84.59 AV			1.00 V	54	72.75	11.84
3	5350.00	57.85 PK	74.00	-16.15	1.00 V	54	45.96	11.89
4	5350.00	43.26 AV	54.00	-10.74	1.00 V	54	31.37	11.89
5	5353.84	60.20 PK	74.00	-13.80	1.00 V	54	48.30	11.90
6	5353.84	46.52 AV	54.00	-7.48	1.00 V	54	34.62	11.90
7	10620.00	56.62 PK	74.00	-17.38	1.00 V	0	35.38	21.24
8	10620.00	45.58 AV	54.00	-8.42	1.00 V	0	24.34	21.24
9	15930.00	58.62 PK	74.00	-15.38	1.00 V	0	32.42	26.20
10	15930.00	47.45 AV	54.00	-6.55	1.00 V	0	21.25	26.20

REMARKS:

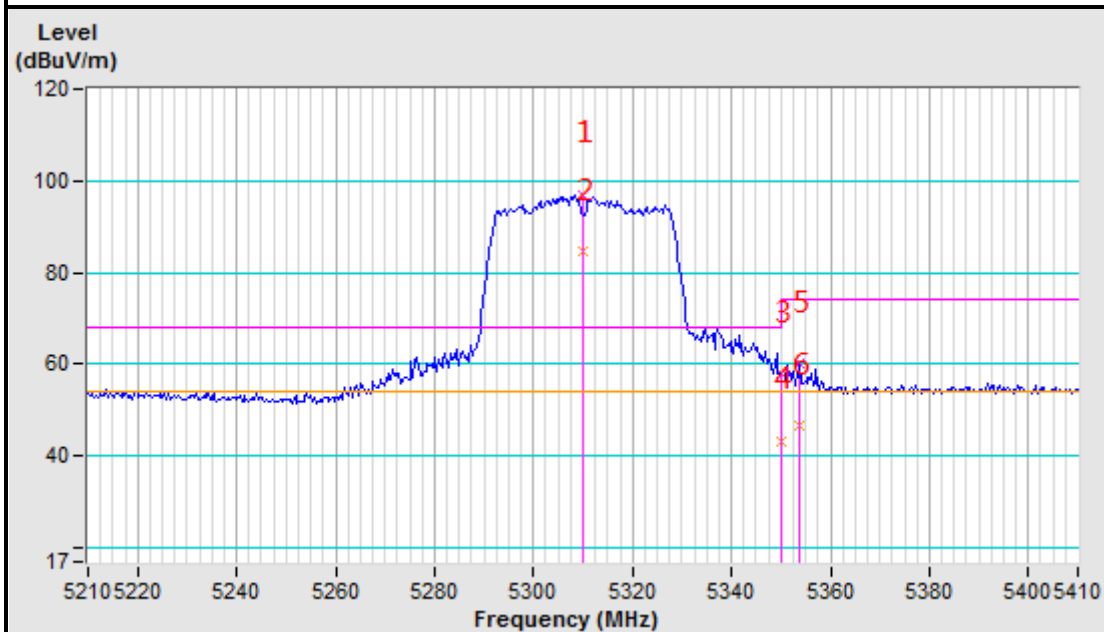
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

Band edge Plot

5310MHz Horizontal



5310MHz Vertical



802.11ac 80MHz

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

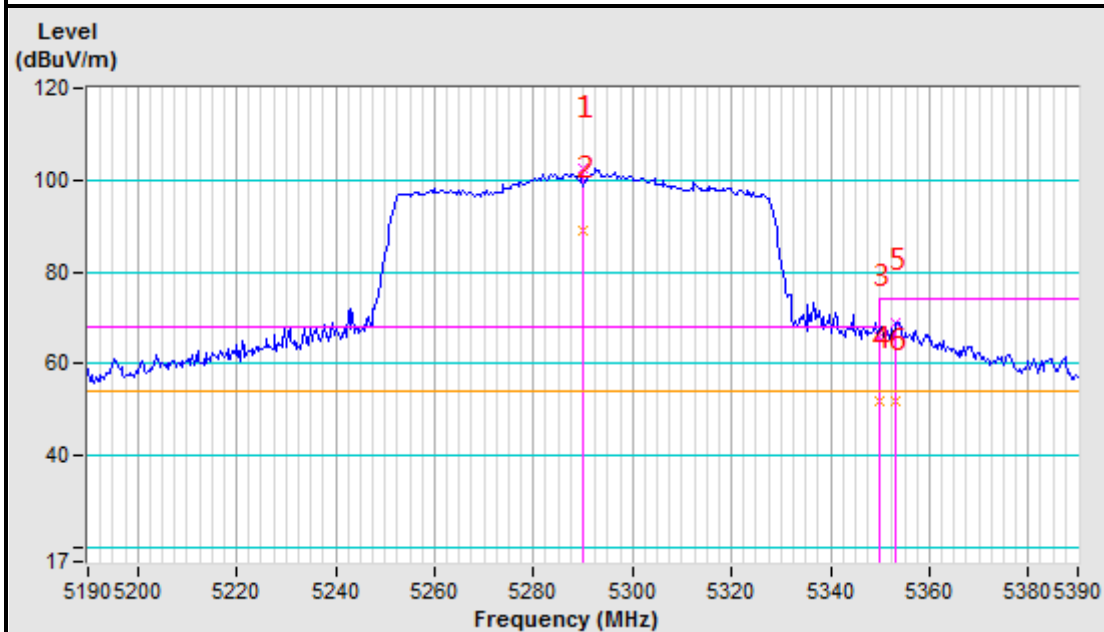
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	102.55 PK			1.00 H	258	90.74	11.81
2	*5290.00	89.14 AV			1.00 H	258	77.33	11.81
3	5350.00	65.89 PK	74.00	-8.11	1.00 H	258	54.00	11.89
4	5350.00	52.02 AV	54.00	-1.98	1.00 H	258	40.13	11.89
5	5353.20	69.11 PK	74.00	-4.89	1.00 H	258	57.21	11.90
6	5353.20	51.91 AV	54.00	-2.09	1.00 H	258	40.01	11.90
7	#10580.00	57.69 PK	68.20	-10.51	1.00 H	0	36.54	21.15
8	15870.00	58.50 PK	74.00	-15.50	1.00 H	0	32.39	26.11
9	15870.00	45.51 AV	54.00	-8.49	1.00 H	0	19.40	26.11
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	93.48 PK			1.00 V	125	81.67	11.81
2	*5290.00	82.12 AV			1.00 V	125	70.31	11.81
3	5350.00	58.57 PK	74.00	-15.43	1.00 V	123	46.68	11.89
4	5350.00	46.21 AV	54.00	-7.79	1.00 V	123	34.32	11.89
5	5352.56	57.68 PK	74.00	-16.32	1.00 V	125	45.78	11.90
6	5352.56	46.37 AV	54.00	-7.63	1.00 V	125	34.47	11.90
7	#10580.00	55.42 PK	68.20	-12.78	1.00 V	0	34.27	21.15
8	15870.00	56.95 PK	74.00	-17.05	1.00 V	0	30.84	26.11
9	15870.00	42.26 AV	54.00	-11.74	1.00 V	0	16.15	26.11

REMARKS:

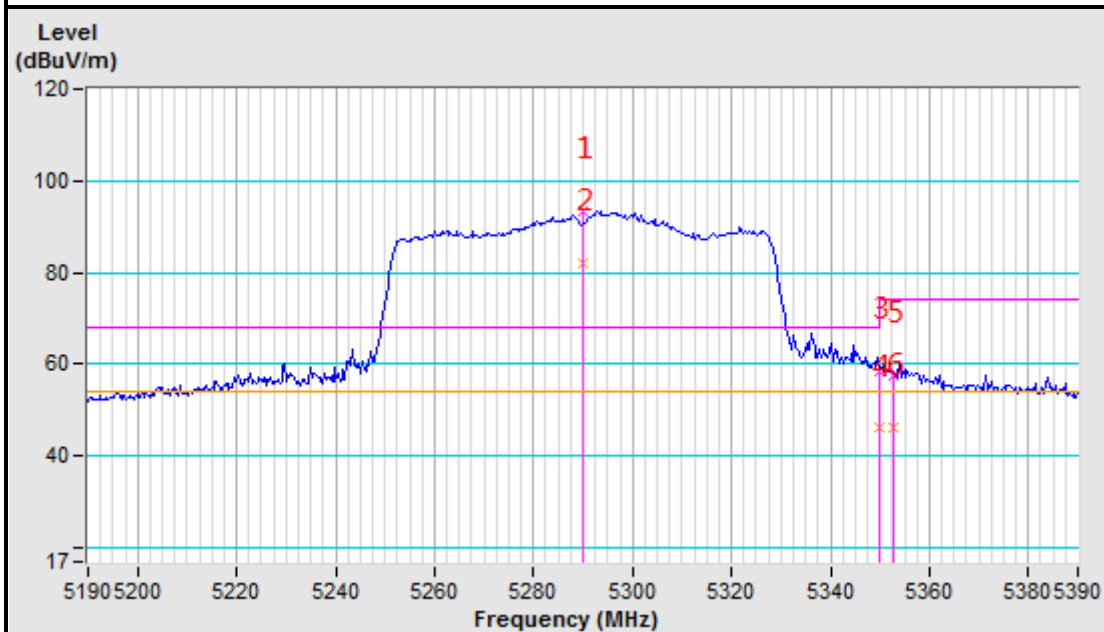
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5290MHz Horizontal



5290MHz Vertical



Band 3 (5470-5725MHz): 802.11a

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

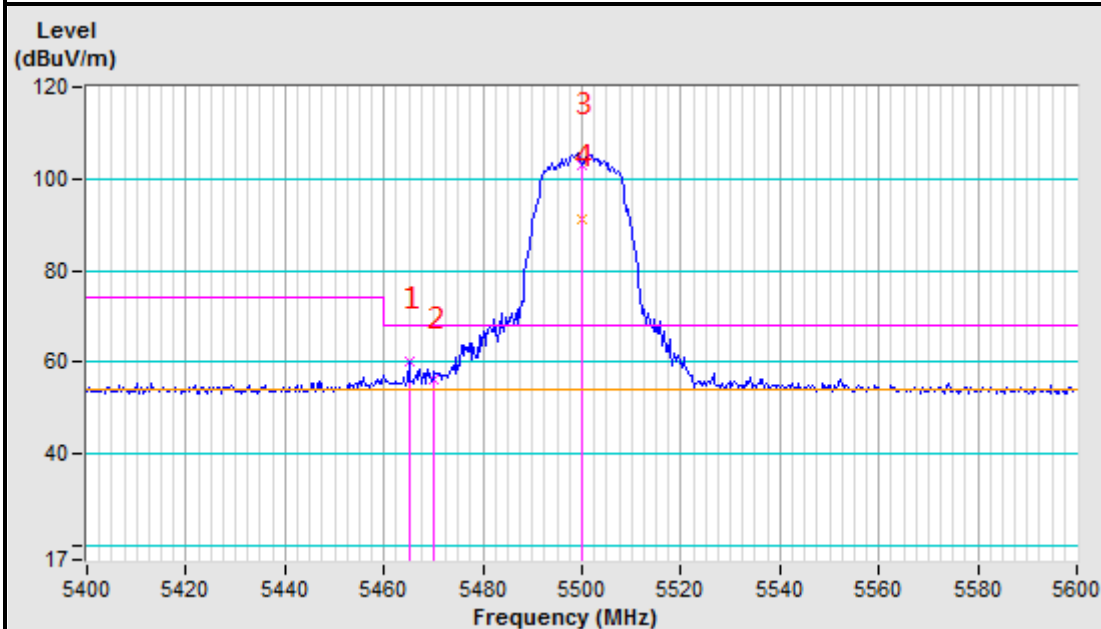
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.19	60.26 PK	68.20	-7.94	1.00 H	0	48.20	12.06
2	#5470.00	56.21 PK	68.20	-11.99	1.00 H	0	44.15	12.06
3	*5500.00	102.95 PK			1.00 H	20	90.84	12.11
4	*5500.00	91.36 AV			1.00 H	20	79.25	12.11
5	11000.00	54.58 PK	74.00	-19.42	1.00 H	0	32.46	22.12
6	11000.00	43.59 AV	54.00	-10.41	1.00 H	0	21.47	22.12
7	#16500.00	57.48 PK	68.20	-10.72	1.00 H	0	30.78	26.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5468.08	53.68 PK	68.20	-14.52	1.00 V	0	41.61	12.07
2	#5470.00	53.93 PK	68.20	-14.27	1.00 V	0	41.87	12.06
3	*5500.00	94.76 PK			1.00 V	225	82.65	12.11
4	*5500.00	83.36 AV			1.00 V	225	71.25	12.11
5	11000.00	54.45 PK	74.00	-19.55	1.00 V	0	32.33	22.12
6	11000.00	43.36 AV	54.00	-10.64	1.00 V	0	21.24	22.12
7	#16500.00	56.64 PK	68.20	-11.56	1.00 V	0	29.94	26.70

REMARKS:

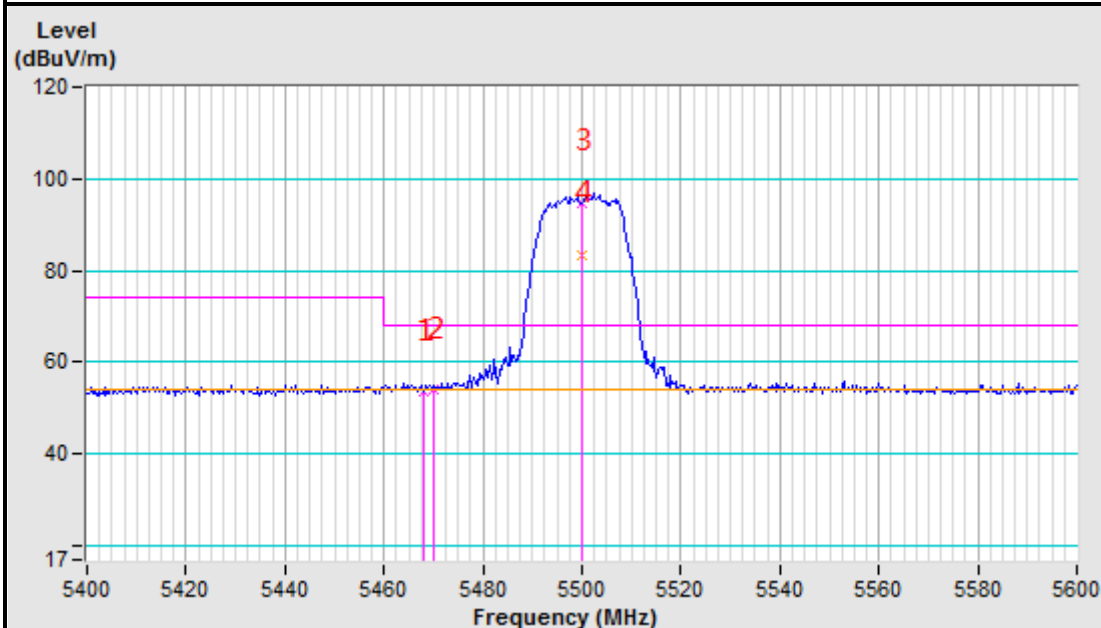
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

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	54.56 PK	68.20	-13.64	1.00 H	0	42.50	12.06
2	*5580.00	102.54 PK			1.00 H	0	90.11	12.43
3	*5580.00	92.26 AV			1.00 H	0	79.83	12.43
4	11160.00	54.58 PK	74.00	-19.42	1.00 H	0	32.16	22.42
5	11160.00	42.28 AV	54.00	-11.72	1.00 H	0	19.86	22.42
6	#16740.00	56.69 PK	68.20	-11.51	1.00 H	0	29.25	27.44
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	53.26 PK	68.20	-14.94	1.00 V	0	41.20	12.06
2	*5580.00	97.65 PK			1.00 V	0	85.22	12.43
3	*5580.00	85.47 AV			1.00 V	0	73.04	12.43
4	11160.00	53.36 PK	74.00	-20.64	1.00 V	0	30.94	22.42
5	11160.00	41.18 AV	54.00	-12.82	1.00 V	0	18.76	22.42
6	#16740.00	55.58 PK	68.20	-12.62	1.00 V	0	28.14	27.44

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)

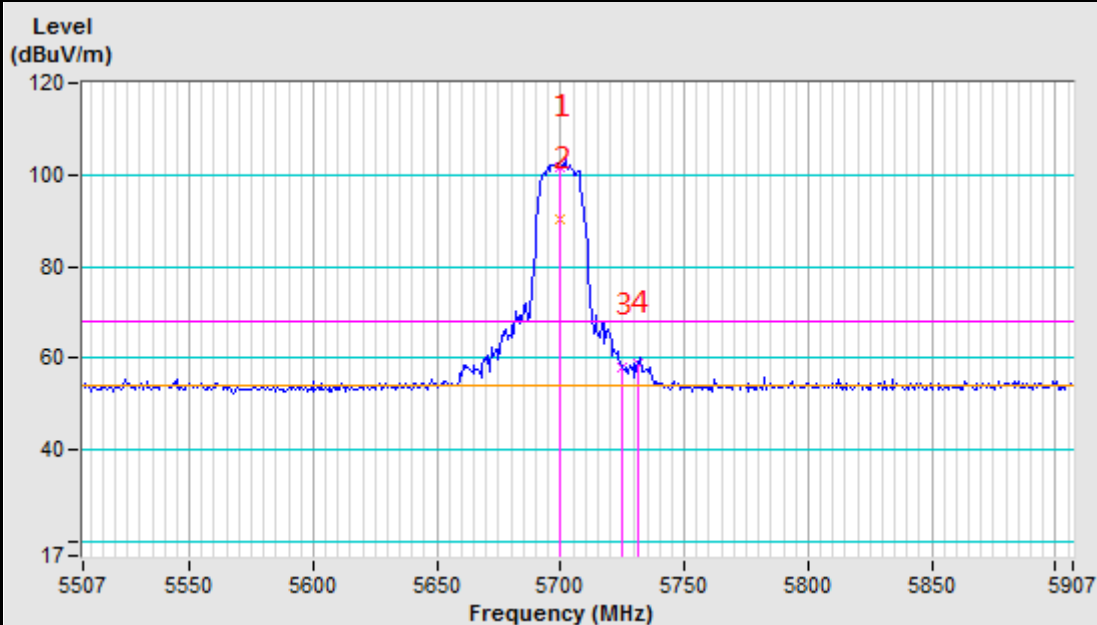
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	101.66 PK			1.00 H	47	88.74	12.92
2	*5700.00	90.14 AV			1.00 H	47	77.22	12.92
3	#5725.00	58.06 PK	68.20	-10.14	1.00 H	0	45.04	13.02
4	#5731.41	58.71 PK	68.20	-9.49	1.00 H	0	45.67	13.04
5	11400.00	55.48 PK	74.00	-18.52	1.00 H	0	32.62	22.86
6	11400.00	43.37 AV	54.00	-10.63	1.00 H	0	20.51	22.86
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	93.52 PK			1.00 V	123	80.60	12.92
2	*5700.00	82.69 AV			1.00 V	123	69.77	12.92
3	#5725.00	54.37 PK	68.20	-13.83	1.00 V	0	41.35	13.02
4	#5728.21	53.52 PK	68.20	-14.68	1.00 V	0	40.49	13.03
5	11400.00	53.37 PK	74.00	-20.63	1.00 V	0	30.51	22.86
6	11400.00	42.28 AV	54.00	-11.72	1.00 V	0	19.42	22.86

REMARKS:

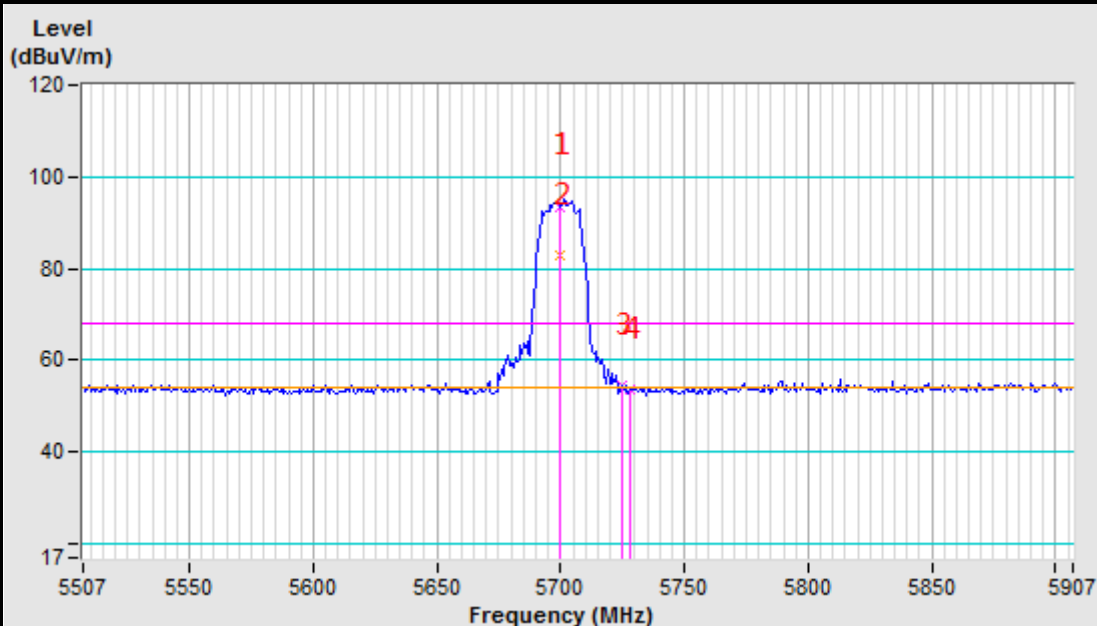
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5700MHz Horizontal



5700MHz Vertical



802.11n (20MHz)

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

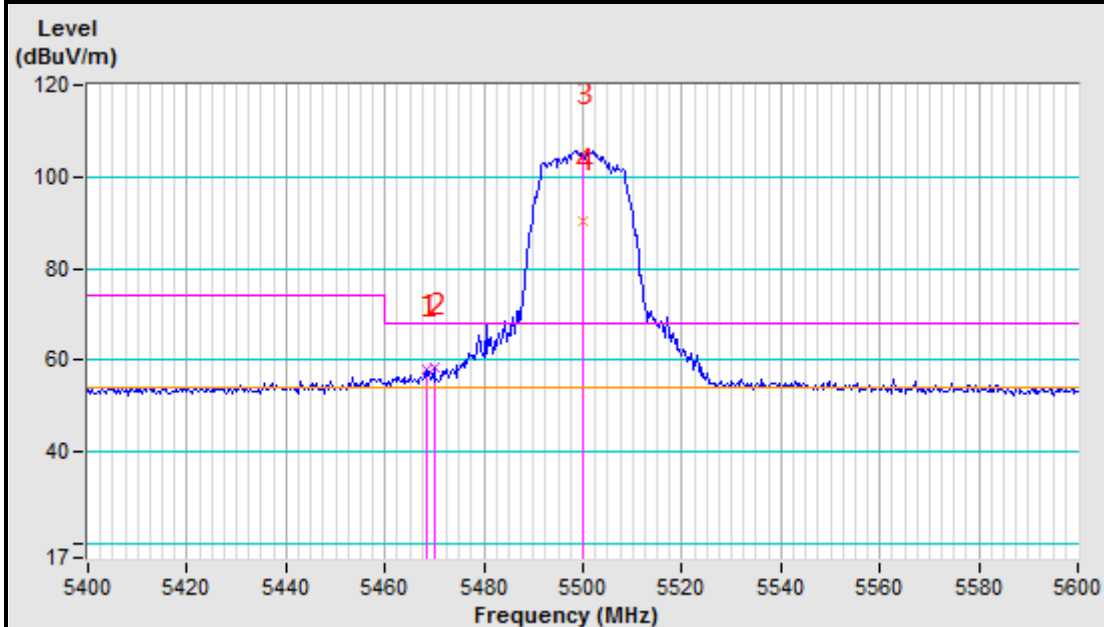
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5468.40	58.17 PK	68.20	-10.03	1.00 H	0	46.11	12.06
2	#5470.00	58.58 PK	68.20	-9.62	1.00 H	0	46.52	12.06
3	*5500.00	104.42 PK			1.00 H	136	92.31	12.11
4	*5500.00	90.25 AV			1.00 H	136	78.14	12.11
5	11000.00	56.62 PK	74.00	-17.38	1.00 H	0	34.50	22.12
6	11000.00	44.48 AV	54.00	-9.52	1.00 H	0	22.36	22.12
7	#16500.00	58.81 PK	68.20	-9.39	1.00 H	0	32.11	26.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5468.08	53.63 PK	68.20	-14.57	1.00 V	0	41.56	12.07
2	#5470.00	53.87 PK	68.20	-14.33	1.00 V	0	41.81	12.06
3	*5500.00	96.12 PK			1.00 V	202	84.01	12.11
4	*5500.00	82.46 AV			1.00 V	202	70.35	12.11
5	11000.00	54.66 PK	74.00	-19.34	1.00 V	0	32.54	22.12
6	11000.00	43.39 AV	54.00	-10.61	1.00 V	0	21.27	22.12
7	#16500.00	56.95 PK	68.20	-11.25	1.00 V	0	30.25	26.70

REMARKS:

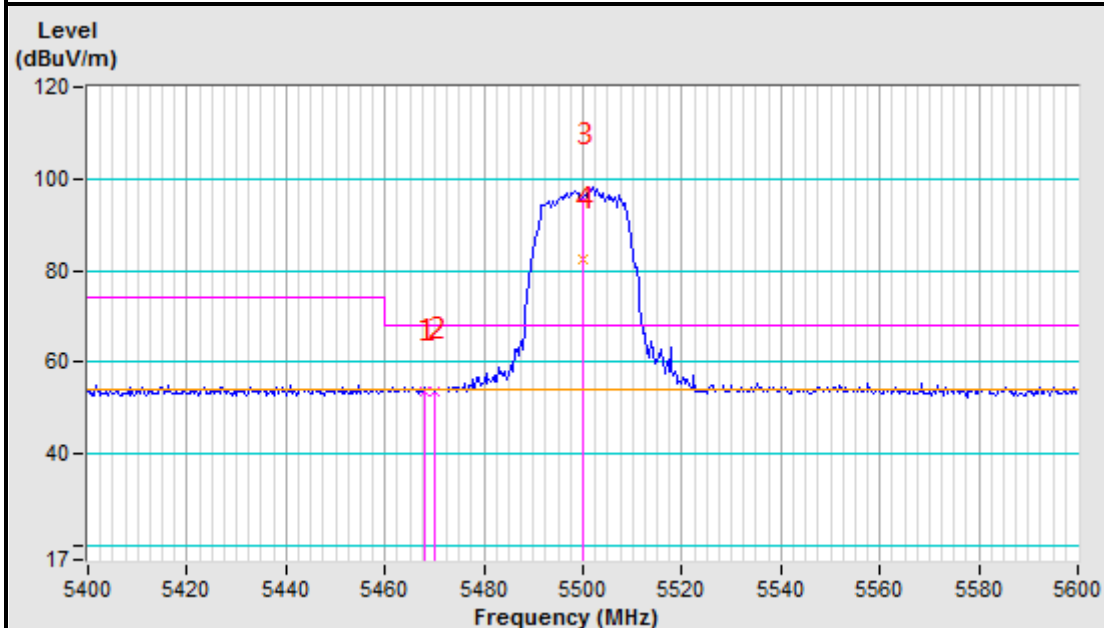
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

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	56.62 PK	68.20	-11.58	1.00 H	128	44.56	12.06
2	*5580.00	105.21 PK			1.00 H	128	92.78	12.43
3	*5580.00	93.25 AV			1.00 H	128	80.82	12.43
4	11160.00	53.36 PK	74.00	-20.64	1.00 H	0	30.94	22.42
5	11160.00	43.36 AV	54.00	-10.64	1.00 H	0	20.94	22.42
6	#16740.00	56.69 PK	68.20	-11.51	1.00 H	0	29.25	27.44
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	54.29 PK	68.20	-13.91	1.00 V	50	42.23	12.06
2	*5580.00	96.62 PK			1.00 V	50	84.19	12.43
3	*5580.00	80.24 AV			1.00 V	50	67.81	12.43
4	11160.00	52.29 PK	74.00	-21.71	1.00 V	0	29.87	22.42
5	11160.00	42.26 AV	54.00	-11.74	1.00 V	0	19.84	22.42
6	#16740.00	55.79 PK	68.20	-12.41	1.00 V	0	28.35	27.44

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)

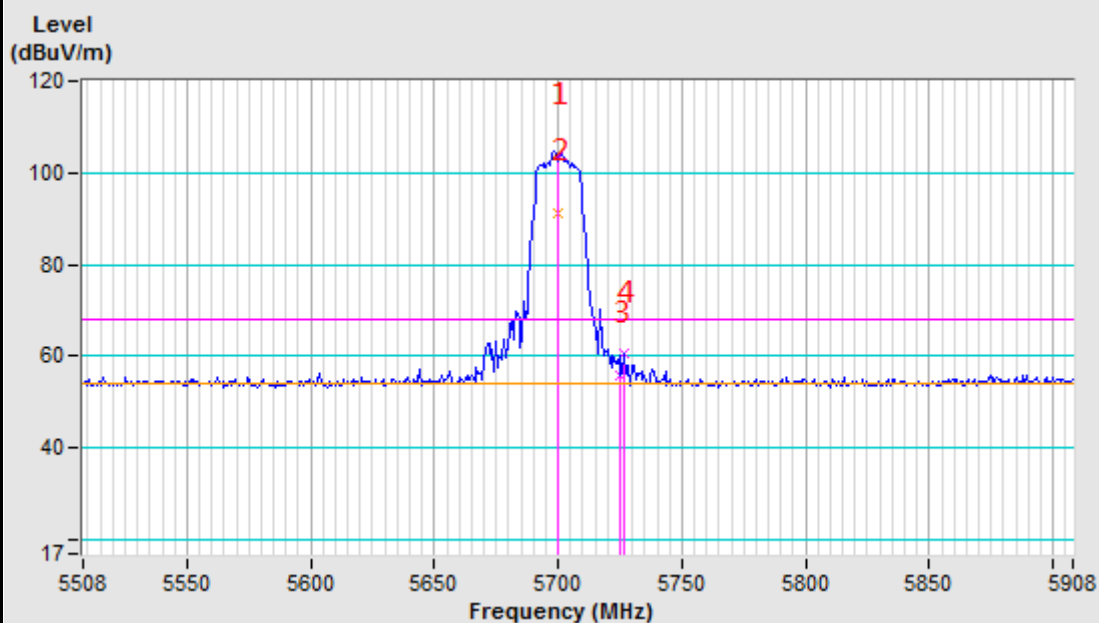
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	103.64 PK			1.00 H	110	90.72	12.92
2	*5700.00	91.26 AV			1.00 H	110	78.34	12.92
3	#5725.00	55.96 PK	68.20	-12.24	1.00 H	0	42.94	13.02
4	#5726.28	60.46 PK	68.20	-7.74	1.00 H	0	47.44	13.02
5	11400.00	55.26 PK	74.00	-18.74	1.00 H	0	32.40	22.86
6	11400.00	46.62 AV	54.00	-7.38	1.00 H	0	23.76	22.86
7	#17100.00	58.51 PK	68.20	-9.69	1.00 H	0	30.04	28.47
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	95.70 PK			1.00 V	51	82.78	12.92
2	*5700.00	80.20 AV			1.00 V	51	67.28	12.92
3	#5725.00	54.56 PK	68.20	-13.64	1.00 V	0	41.54	13.02
4	#5742.31	55.28 PK	68.20	-12.92	1.00 V	0	42.19	13.09
5	11400.00	53.36 PK	74.00	-20.64	1.00 V	0	30.50	22.86
6	11400.00	45.88 AV	54.00	-8.12	1.00 V	0	23.02	22.86
7	#17100.00	57.73 PK	68.20	-10.47	1.00 V	0	29.26	28.47

REMARKS:

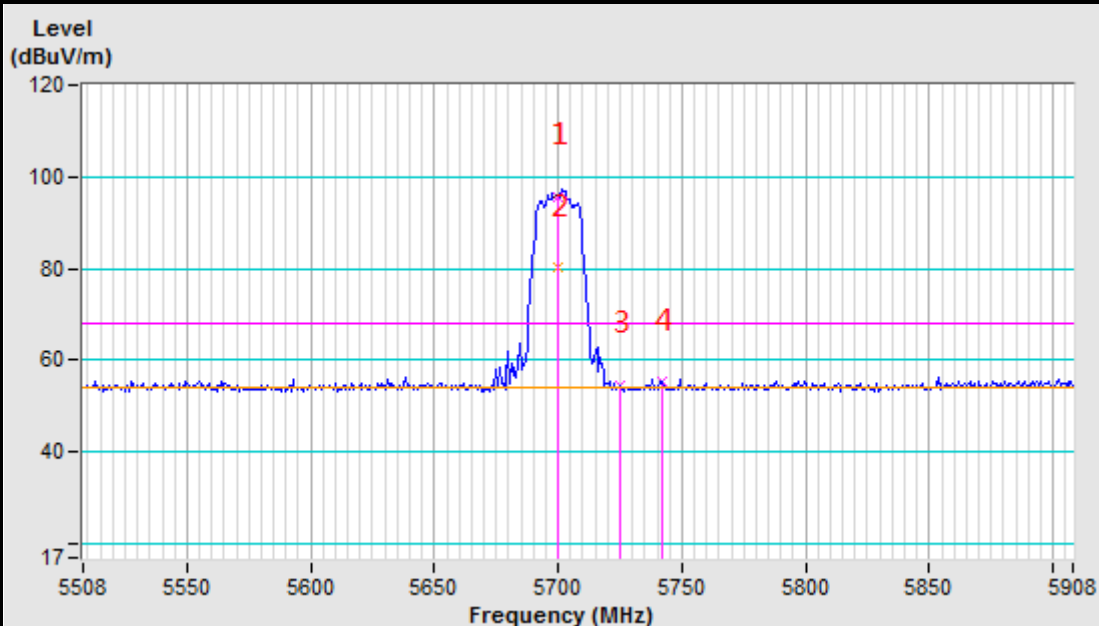
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5700MHz Horizontal



5700MHz Vertical



802.11n (40MHz)

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

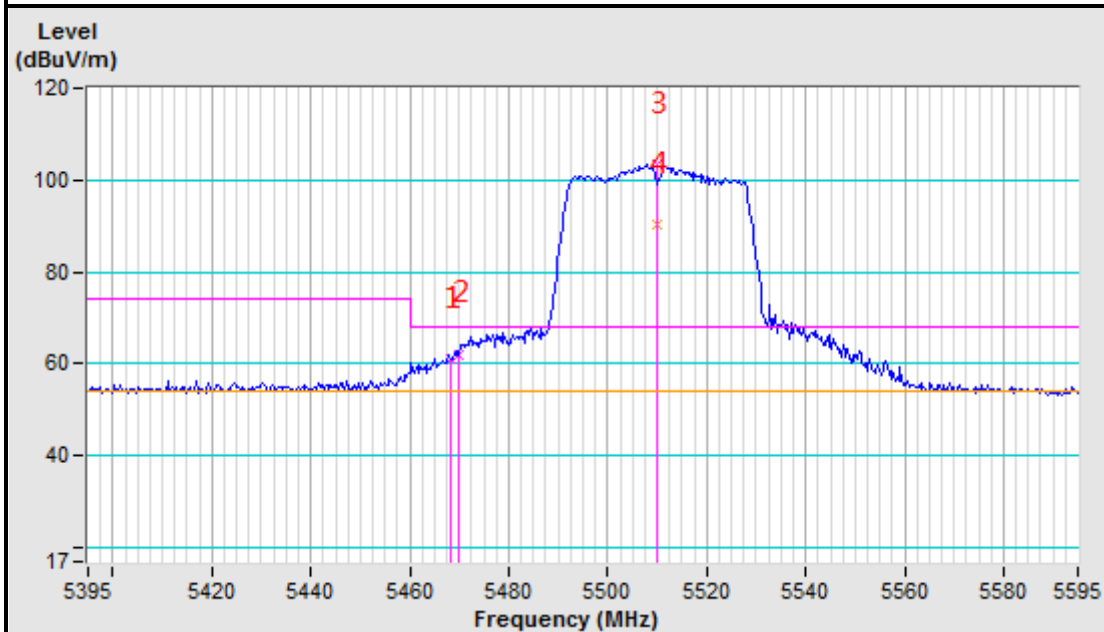
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5468.39	60.93 PK	68.20	-7.27	1.00 H	40	48.87	12.06
2	#5470.00	62.03 PK	68.20	-6.17	1.00 H	40	49.97	12.06
3	*5510.00	103.25 PK			1.00 H	40	91.10	12.15
4	*5510.00	90.25 AV			1.00 H	40	78.10	12.15
5	11020.00	53.22 PK	74.00	-20.78	1.00 H	0	31.06	22.16
6	11020.00	40.18 AV	54.00	-13.82	1.00 H	0	18.02	22.16
7	#16530.00	56.64 PK	68.20	-11.56	1.00 H	0	29.84	26.80
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	#5468.07	57.12 PK	68.20	-11.08	1.00 V	127	45.05	12.07
2	#5470.00	58.13 PK	68.20	-10.07	1.00 V	127	46.07	12.06
3	*5510.00	95.22 PK			1.00 V	127	83.07	12.15
4	*5510.00	83.41 AV			1.00 V	127	71.26	12.15
5	11020.00	54.45 PK	74.00	-19.55	1.00 V	0	32.29	22.16
6	11020.00	41.16 AV	54.00	-12.84	1.00 V	0	19.00	22.16
7	#16530.00	57.85 PK	68.20	-10.35	1.00 V	0	31.05	26.80

REMARKS:

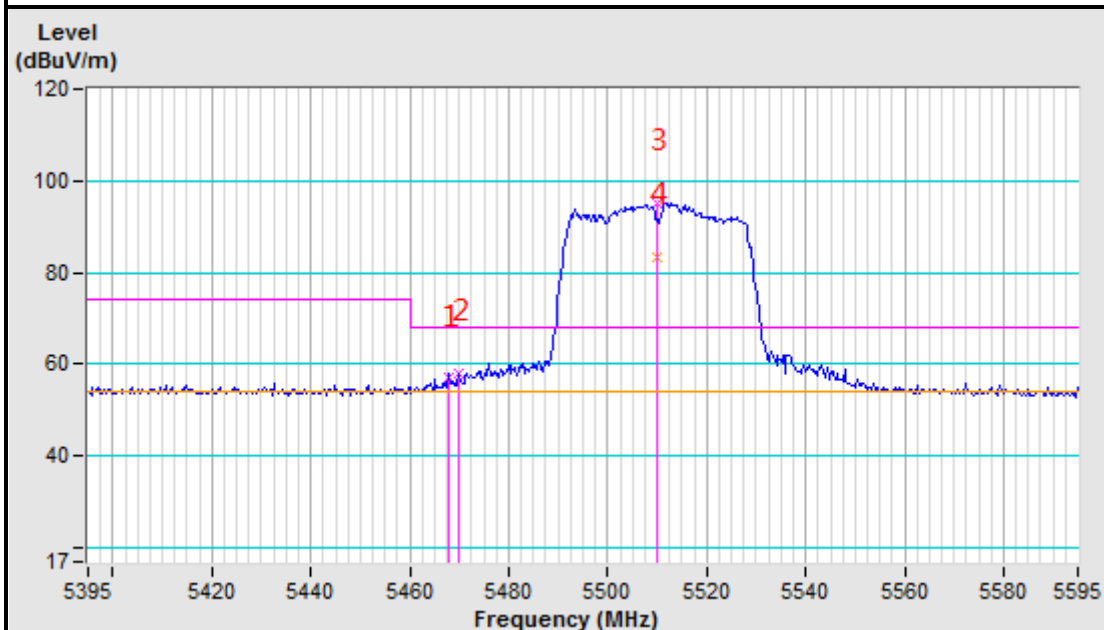
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5510MHz Horizontal



5510MHz Vertical



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.95 PK	68.20	-11.25	1.00 H	241	44.89	12.06
2	*5550.00	103.37 PK			1.00 H	241	91.06	12.31
3	*5550.00	89.65 AV			1.00 H	241	77.34	12.31
4	11100.00	60.32 PK	74.00	-13.68	1.00 H	0	38.02	22.30
5	11100.00	45.51 AV	54.00	-8.49	1.00 H	0	23.21	22.30
6	#16650.00	59.05 PK	68.20	-9.15	1.00 H	0	31.88	27.16
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	54.10 PK	68.20	-14.10	1.00 V	96	42.04	12.06
2	*5550.00	95.50 PK			1.00 V	96	83.19	12.31
3	*5550.00	82.54 AV			1.00 V	96	70.23	12.31
4	11100.00	58.84 PK	74.00	-15.16	1.00 V	0	36.54	22.30
5	11100.00	44.36 AV	54.00	-9.64	1.00 V	0	22.06	22.30
6	#16650.00	57.43 PK	68.20	-10.77	1.00 V	0	30.27	27.16

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

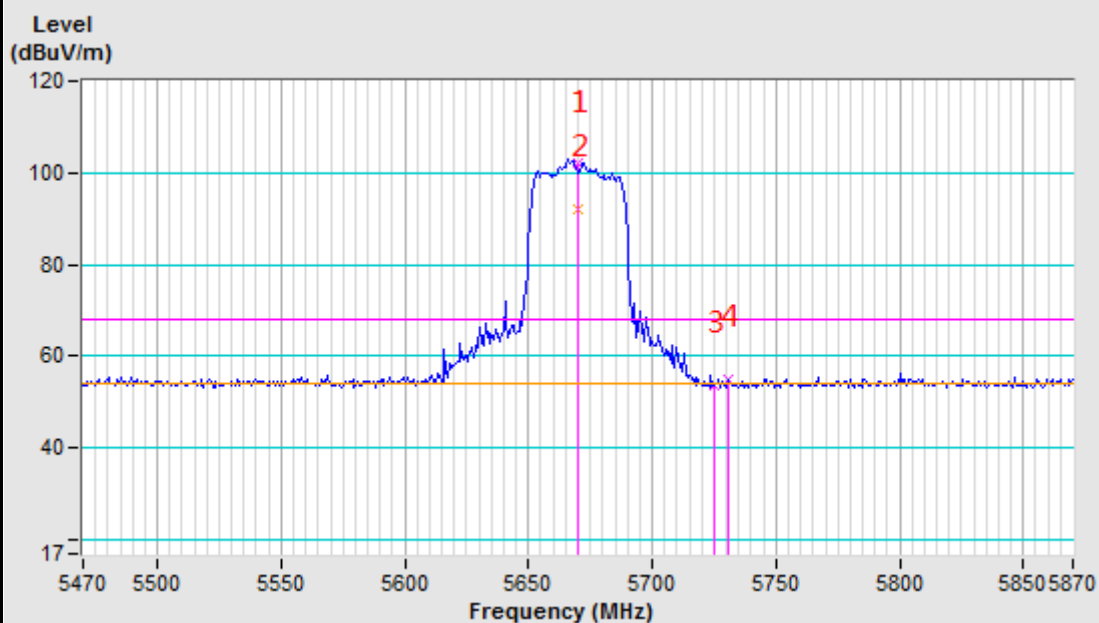
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	102.10 PK			1.00 H	257	89.31	12.79
2	*5670.00	92.27 AV			1.00 H	257	79.48	12.79
3	#5725.00	53.75 PK	68.20	-14.45	1.00 H	0	40.73	13.02
4	#5730.77	55.09 PK	68.20	-13.11	1.00 H	0	42.06	13.03
5	11340.00	58.51 PK	74.00	-15.49	1.00 H	0	35.77	22.74
6	11340.00	46.20 AV	54.00	-7.80	1.00 H	0	23.46	22.74
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	91.07 PK			1.00 V	107	78.28	12.79
2	*5670.00	81.17 AV			1.00 V	107	68.38	12.79
3	#5725.00	53.42 PK	68.20	-14.78	1.00 V	0	40.40	13.02
4	#5758.33	56.16 PK	68.20	-12.04	1.00 V	0	43.02	13.14
5	11340.00	57.20 PK	74.00	-16.80	1.00 V	0	34.46	22.74
6	11340.00	45.30 AV	54.00	-8.70	1.00 V	0	22.56	22.74

REMARKS:

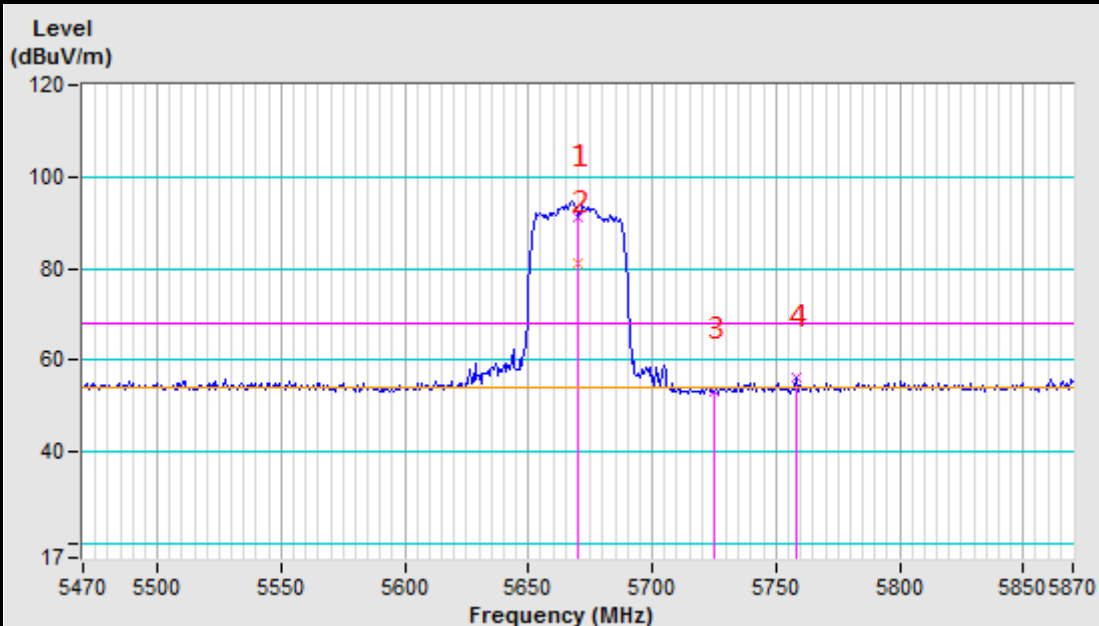
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5670MHz Horizontal



5670MHz Vertical



802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5466.15	66.06 PK	68.20	-2.14	1.00 H	124	54.00	12.06
2	#5470.00	66.45 PK	68.20	-1.75	1.00 H	124	54.39	12.06
3	*5530.00	101.96 PK			1.00 H	124	89.73	12.23
4	*5530.00	89.69 AV			1.00 H	124	77.46	12.23
5	11060.00	54.20 PK	74.00	-19.80	1.00 H	0	31.97	22.23
6	11060.00	47.70 AV	54.00	-6.30	1.00 H	0	25.47	22.23
7	#16590.00	57.85 PK	68.20	-10.35	1.00 H	0	30.87	26.98
8	#16590.00	47.44 AV	54.00	-6.56	1.00 H	0	20.46	26.98
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.23 PK	68.20	-10.97	1.00 V	55	45.17	12.06
2	#5476.74	59.65 PK	68.20	-8.55	1.00 V	55	47.58	12.07
3	*5530.00	93.11 PK			1.00 V	55	80.88	12.23
4	*5530.00	83.12 AV			1.00 V	55	70.89	12.23
5	11060.00	53.26 PK	74.00	-20.74	1.00 V	96	31.03	22.23
6	11060.00	45.00 AV	54.00	-9.00	1.00 V	96	22.77	22.23
7	#16590.00	57.42 PK	68.20	-10.78	1.00 V	0	30.44	26.98
8	#16590.00	46.95 AV	54.00	-7.05	1.00 V	0	19.97	26.98

REMARKS:

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

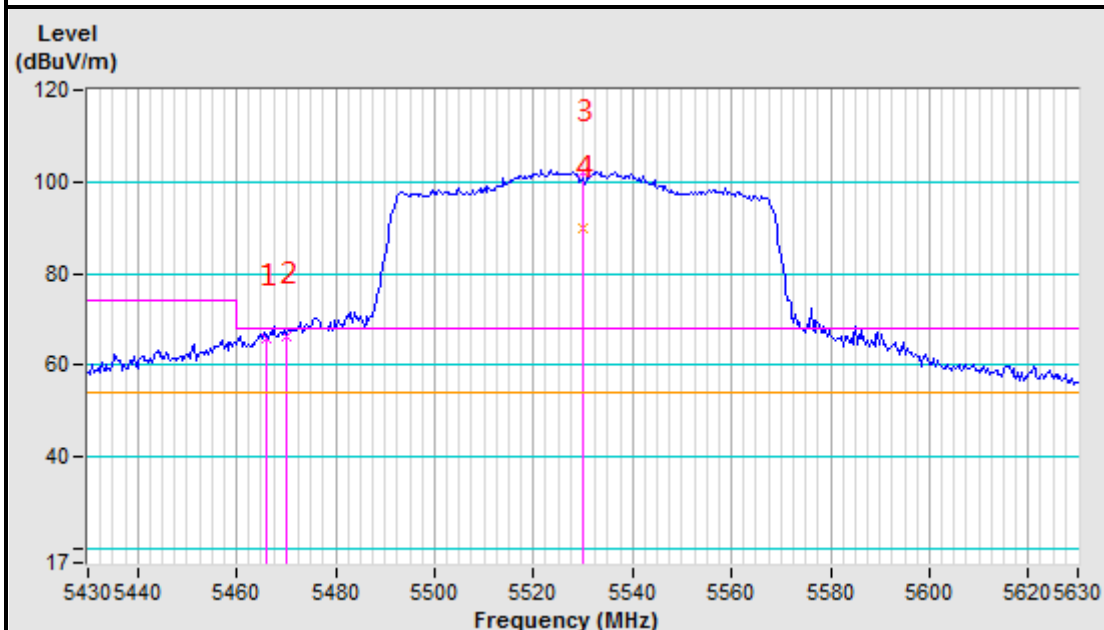


BUREAU
VERITAS

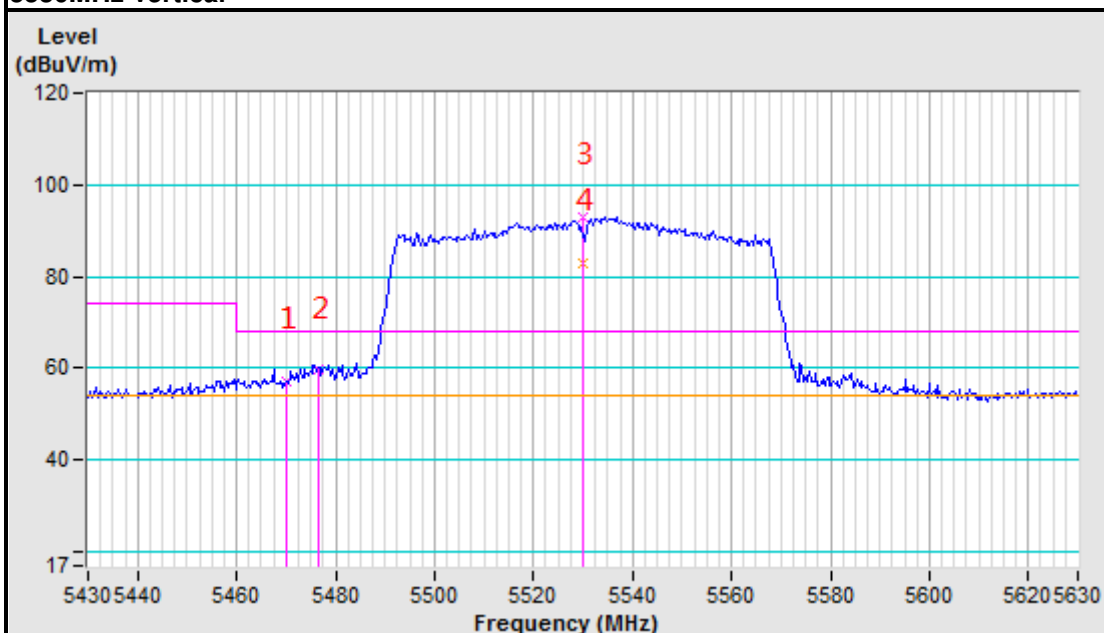
Test Report No.: RF2106WDG0376-4

Band edge Plot

5530MHz Horizontal



5530MHz Vertical



Band 4 (5725-5850MHz):

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	#5721.63	74.86 PK	114.53	-39.67	1.00 H	0	61.86	13.00
2	#5725.00	74.15 PK	122.20	-48.05	1.00 H	0	61.13	13.02
3	*5745.00	106.88 PK			1.00 H	55	93.78	13.10
4	*5745.00	101.46 AV			1.00 H	55	88.36	13.10
5	#5851.36	53.89 PK	119.10	-65.21	1.00 H	0	40.37	13.52
6	11490.00	46.58 PK	74.00	-27.42	1.00 H	0	23.56	23.02
7	11490.00	37.63 AV	54.00	-16.37	1.00 H	0	14.61	23.02
8	#17235.00	46.92 PK	68.20	-21.28	1.00 H	0	18.14	28.78
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5721.63	72.44 PK	114.53	-42.09	1.00 V	0	59.44	13.00
2	#5725.00	70.83 PK	122.20	-51.37	1.00 V	0	57.81	13.02
3	*5745.00	103.18 PK			1.00 V	126	90.08	13.10
4	*5745.00	100.95 AV			1.00 V	126	87.85	13.10
5	#5988.82	59.26 PK	68.20	-8.94	1.00 V	0	45.18	14.08
6	11490.00	43.63 PK	74.00	-30.37	1.00 V	0	20.61	23.02
7	11490.00	35.86 AV	54.00	-18.14	1.00 V	0	12.84	23.02
8	#17235.00	45.69 PK	68.20	-22.51	1.00 V	0	16.91	28.78

REMARKS:

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

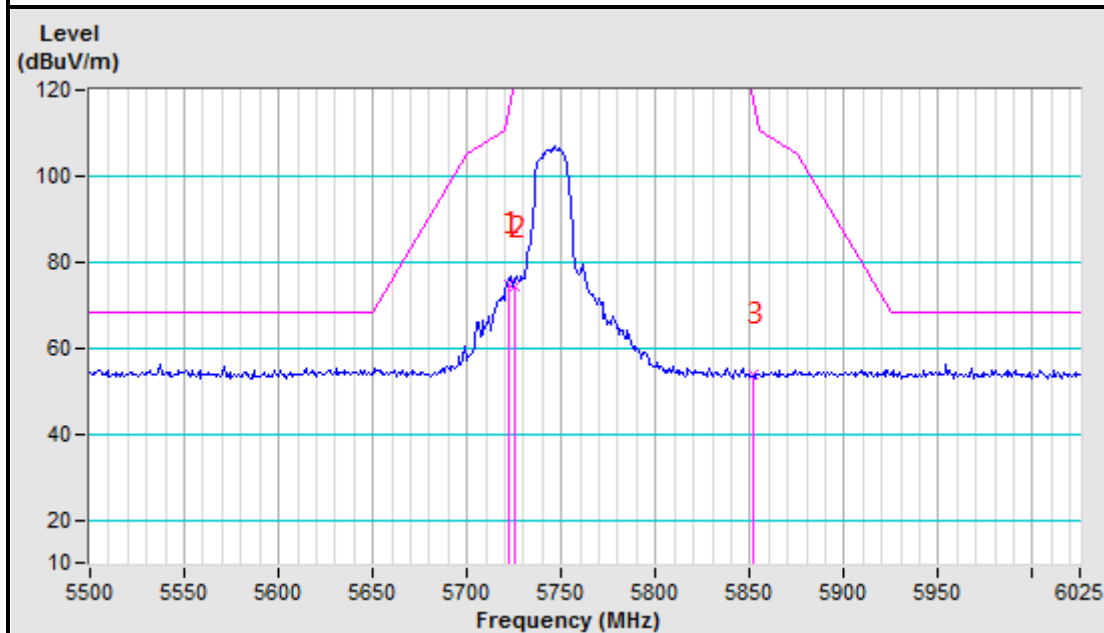


BUREAU
VERITAS

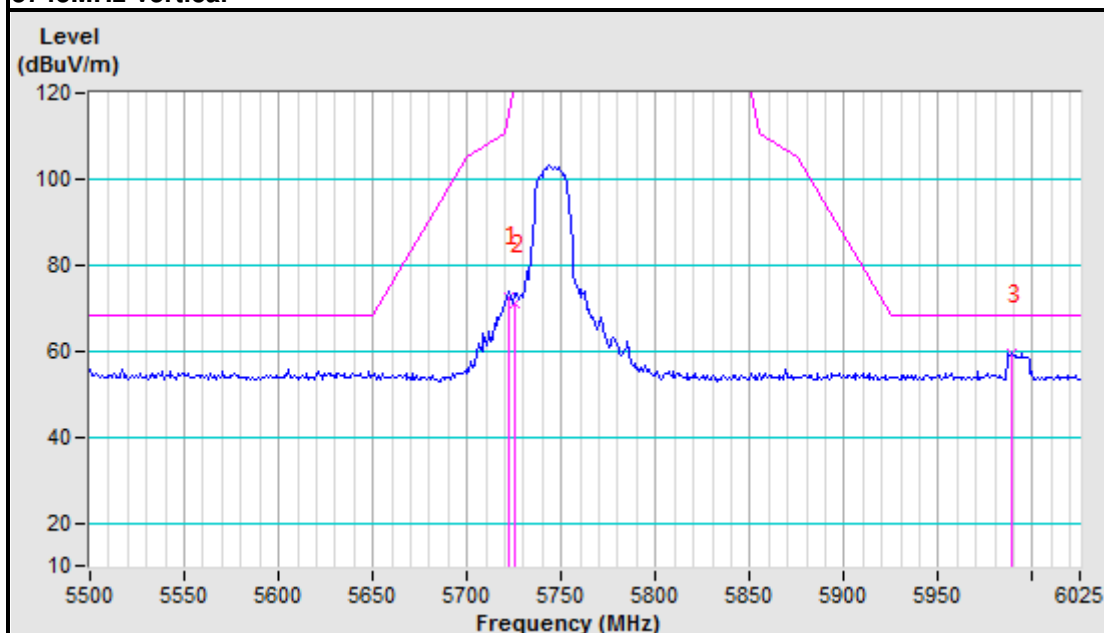
Test Report No.: RF2106WDG0376-4

Band edge Plot

5745MHz Horizontal



5745MHz Vertical



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

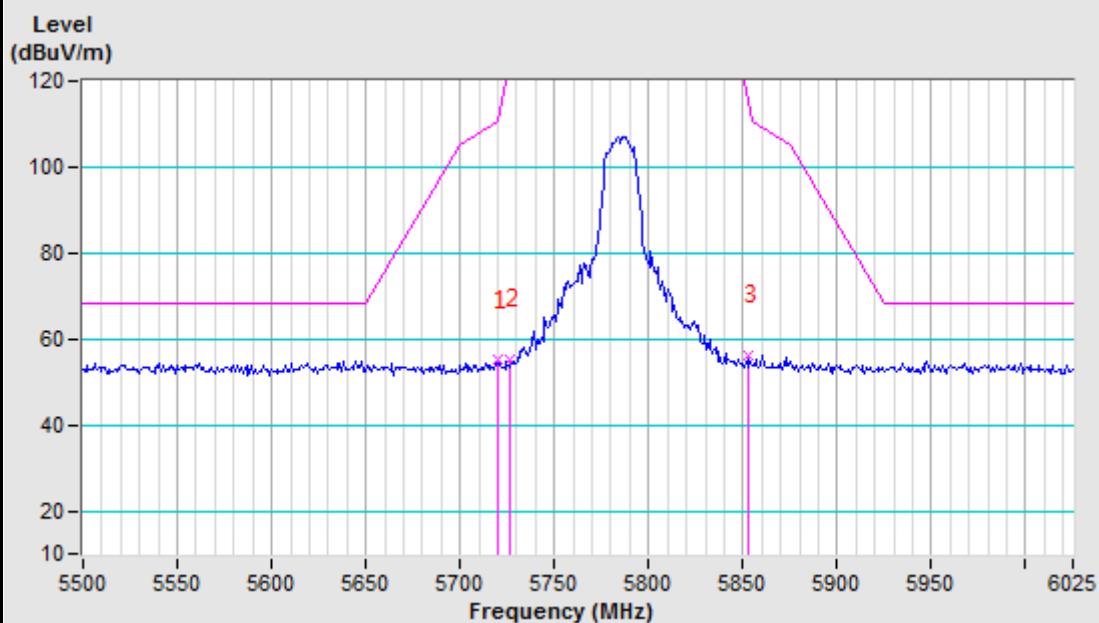
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.07	55.09 PK	110.96	-55.87	2.00 H	0	42.10	12.99
2	#5725.85	55.23 PK	152.20	-96.97	2.00 H	0	42.21	13.02
3	*5785.00	107.69 PK			1.00 H	58	94.44	13.25
4	*5785.00	101.07 AV			1.00 H	58	87.82	13.25
5	#5852.52	56.11 PK	116.44	-60.33	2.00 H	0	42.58	13.53
6	11570.00	52.29 PK	74.00	-21.71	1.00 H	0	29.15	23.14
7	11570.00	43.44 AV	54.00	-10.56	1.00 H	0	20.30	23.14
8	#17355.00	54.75 PK	68.20	-13.45	1.00 H	0	25.68	29.07
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	#5693.87	54.96 PK	100.68	-45.72	2.00 V	0	42.07	12.89
2	#5725.68	54.33 PK	152.20	-97.87	2.00 V	0	41.31	13.02
3	*5785.00	104.36 PK			1.00 V	122	91.11	13.25
4	*5785.00	99.48 AV			1.00 V	122	86.23	13.25
5	#5853.37	54.66 PK	114.53	-59.87	2.00 V	0	41.13	13.53
6	11570.00	50.23 PK	74.00	-23.77	1.00 V	159	27.09	23.14
7	11570.00	40.19 AV	54.00	-13.81	1.00 V	159	17.05	23.14
8	#17355.00	52.29 PK	68.20	-15.91	1.00 V	0	23.22	29.07

REMARKS:

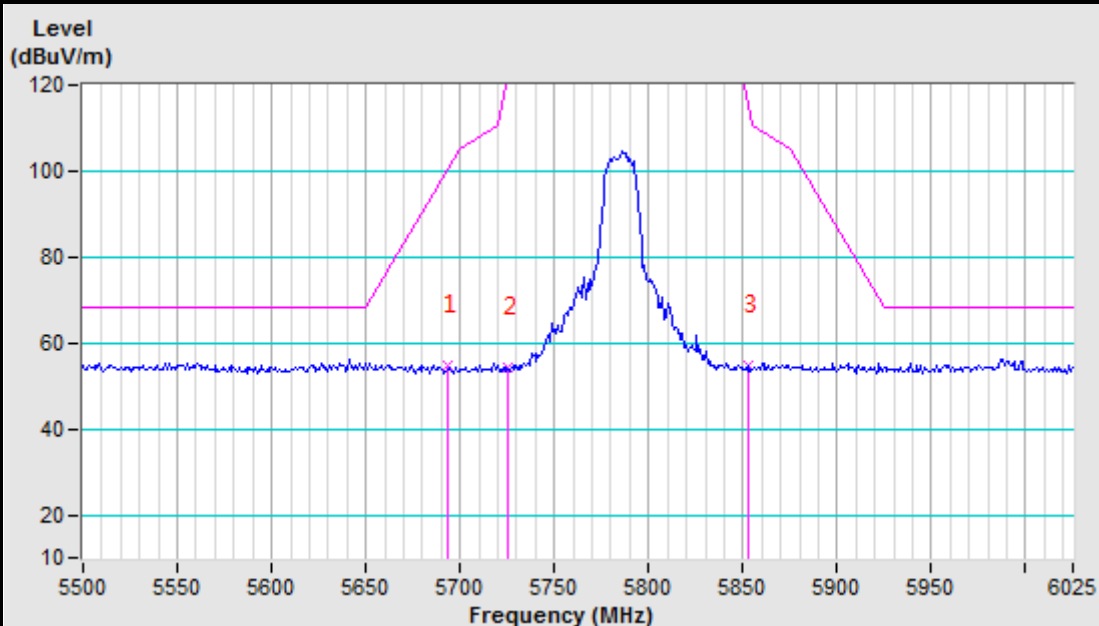
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5785MHz Horizontal



5785MHz Vertical



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

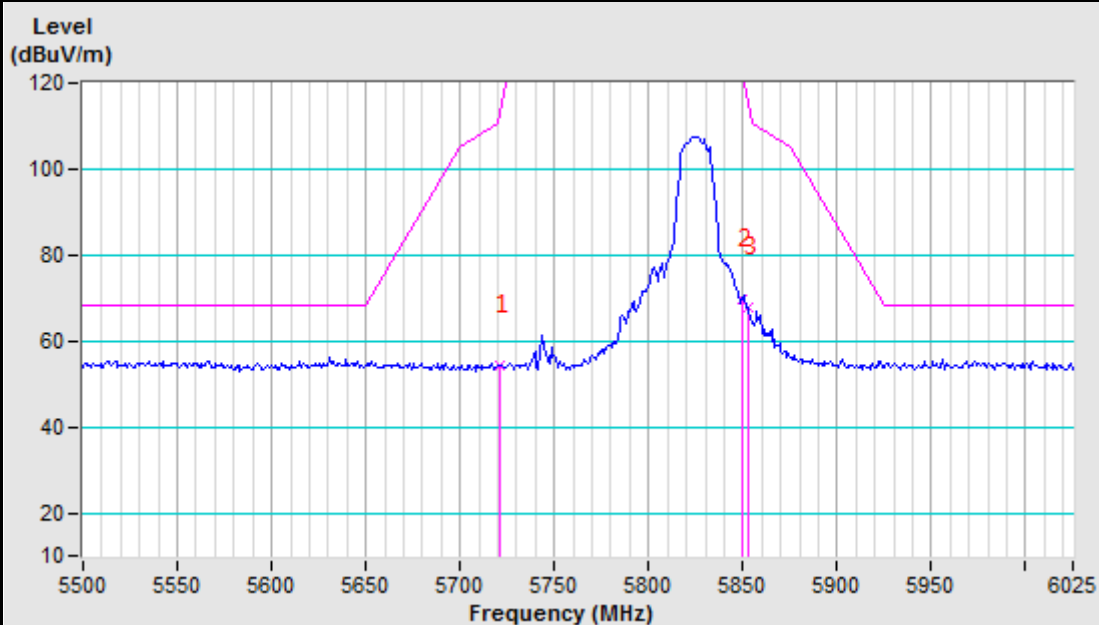
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.79	54.41 PK	112.61	-58.20	1.00 H	0	41.41	13.00
2	*5825.00	107.65 PK			1.00 H	127	94.23	13.42
3	*5825.00	102.14 AV			1.00 H	127	88.72	13.42
4	#5850.00	69.65 PK	122.20	-52.55	1.00 H	0	56.13	13.52
5	#5852.52	67.89 PK	116.44	-48.55	1.00 H	0	54.36	13.53
6	11650.00	57.65 PK	74.00	-16.35	1.00 H	0	34.40	23.25
7	11650.00	46.36 AV	54.00	-7.64	1.00 H	0	23.11	23.25
8	#17475.00	59.95 PK	68.20	-8.25	1.00 H	0	30.61	29.34
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	#5721.63	54.03 PK	114.53	-60.50	1.00 V	0	41.03	13.00
2	*5825.00	103.25 PK			1.00 V	63	89.83	13.42
3	*5825.00	96.14 AV			1.00 V	63	82.72	13.42
4	#5850.00	69.47 PK	122.20	-52.73	1.00 V	0	55.95	13.52
5	#5852.52	66.74 PK	116.44	-49.70	1.00 V	0	53.21	13.53
6	11650.00	55.51 PK	74.00	-18.49	1.00 V	0	32.26	23.25
7	11650.00	45.17 AV	54.00	-8.83	1.00 V	0	21.92	23.25
8	#17475.00	58.69 PK	68.20	-9.51	1.00 V	0	29.35	29.34

REMARKS:

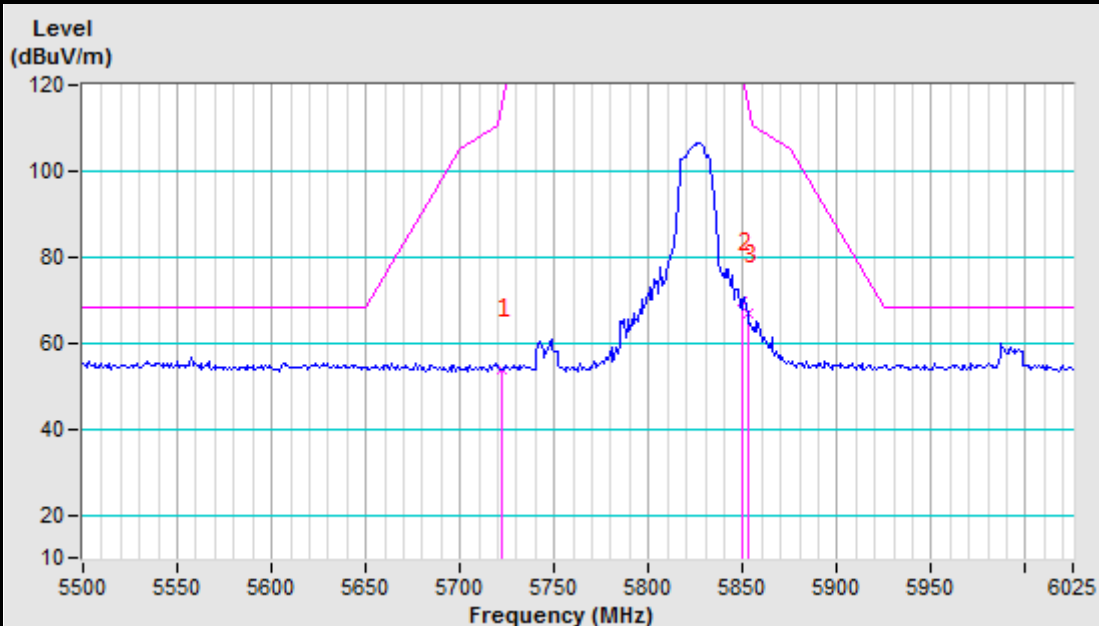
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

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	#5721.63	72.07 PK	114.53	-42.46	1.00 H	0	59.07	13.00
2	#5725.00	73.29 PK	122.20	-48.91	1.00 H	0	60.27	13.02
3	*5745.00	106.31 PK			1.00 H	20	93.21	13.10
4	*5745.00	102.33 AV			1.00 H	20	89.23	13.10
5	#5853.37	54.85 PK	114.53	-59.68	1.00 H	0	41.32	13.53
6	11490.00	45.88 PK	74.00	-28.12	1.00 H	0	22.86	23.02
7	11490.00	37.63 AV	54.00	-16.37	1.00 H	0	14.61	23.02
8	#17235.00	46.39 PK	68.20	-21.81	1.00 H	0	17.61	28.78
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5723.32	70.56 PK	118.36	-47.80	1.00 V	0	57.56	13.00
2	#5725.00	68.39 PK	122.20	-53.81	1.00 V	0	55.37	13.02
3	*5745.00	104.57 PK			1.00 V	166	91.47	13.10
4	*5745.00	98.56 AV			1.00 V	166	85.46	13.10
5	#5993.87	57.67 PK	68.20	-10.53	1.00 V	0	43.58	14.09
6	11490.00	44.53 PK	74.00	-29.47	1.00 V	0	21.51	23.02
7	11490.00	35.87 AV	54.00	-18.13	1.00 V	0	12.85	23.02
8	#17235.00	45.62 PK	68.20	-22.58	1.00 V	0	16.84	28.78

REMARKS:

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

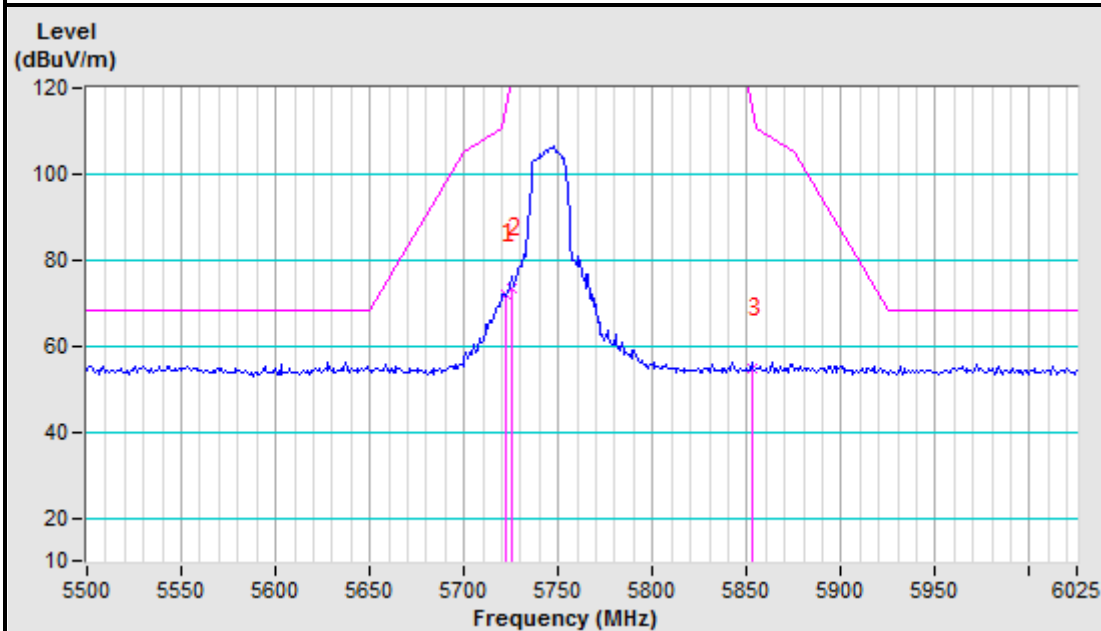


BUREAU
VERITAS

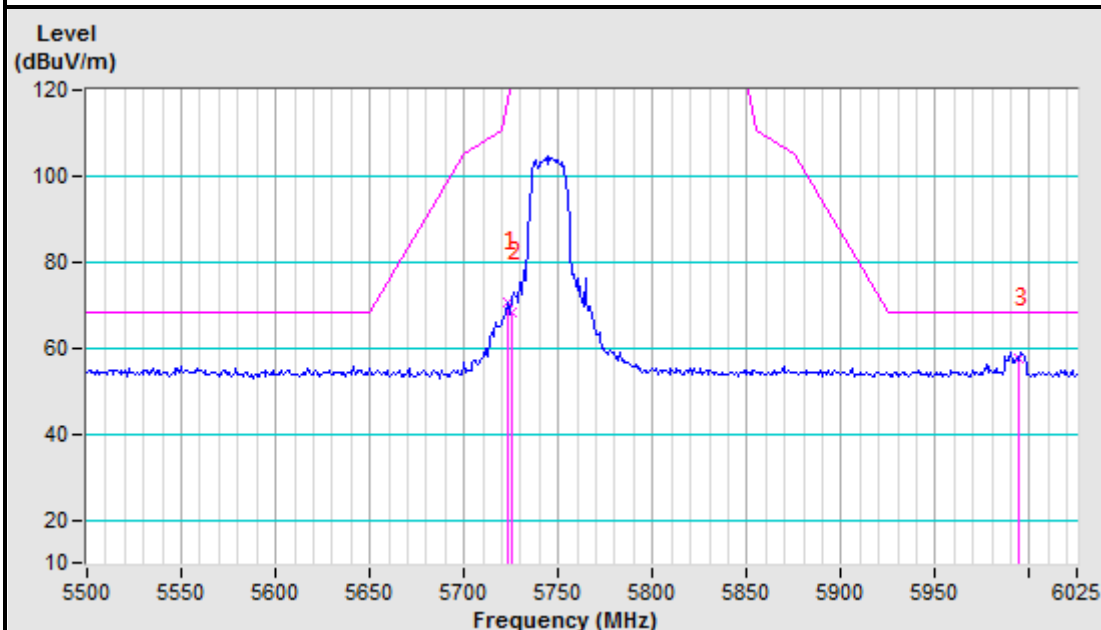
Test Report No.: RF2106WDG0376-4

Band edge Plot

5745MHz Horizontal



5745MHz Vertical



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

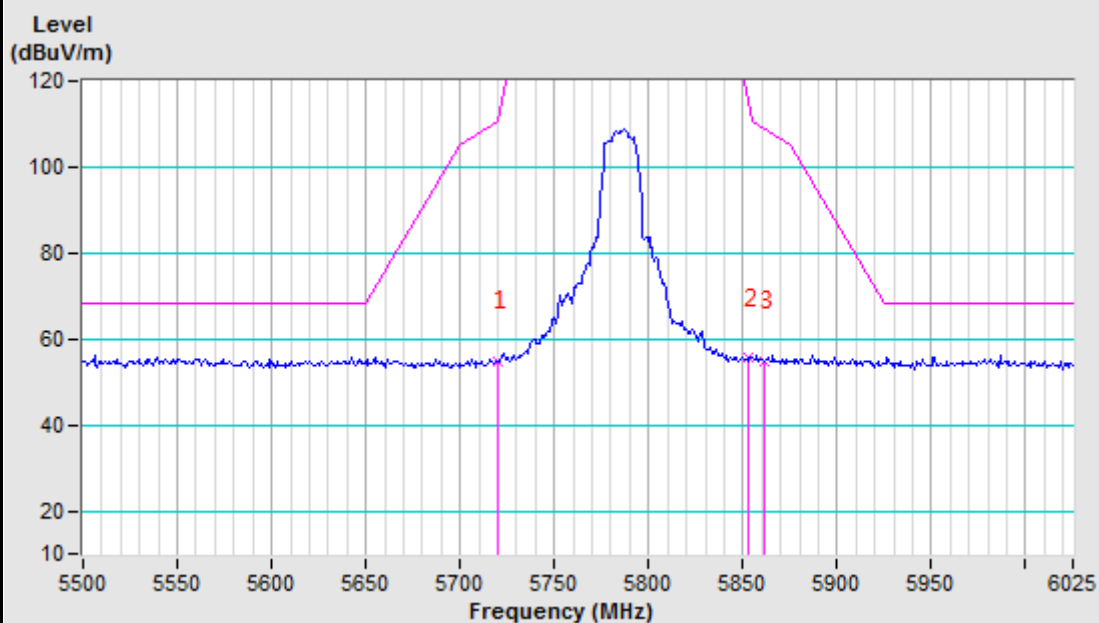
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5719.95	54.91 PK	110.79	-55.88	2.00 H	0	41.92	12.99
2	*5785.00	108.85 PK			1.00 H	101	95.60	13.25
3	*5785.00	102.64 AV			1.00 H	101	89.39	13.25
4	#5852.52	55.48 PK	116.44	-60.96	2.00 H	0	41.95	13.53
5	#5860.94	54.91 PK	109.14	-54.23	2.00 H	0	41.35	13.56
6	11570.00	54.50 PK	74.00	-19.50	1.00 H	0	31.36	23.14
7	11570.00	45.62 AV	54.00	-8.38	1.00 H	0	22.48	23.14
8	#17355.00	55.61 PK	68.20	-12.59	1.00 H	0	26.54	29.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5722.48	53.90 PK	116.45	-62.55	2.00 V	0	40.90	13.00
2	*5785.00	105.72 PK			1.00 V	63	92.47	13.25
3	*5785.00	100.49 AV			1.00 V	63	87.24	13.25
4	#5855.05	54.46 PK	110.79	-56.33	2.00 V	0	40.93	13.53
5	#5989.66	60.07 PK	68.20	-8.13	2.00 V	0	45.99	14.08
6	11570.00	52.26 PK	74.00	-21.74	1.00 V	0	29.12	23.14
7	11570.00	44.48 AV	54.00	-9.52	1.00 V	0	21.34	23.14
8	#17355.00	54.85 PK	68.20	-13.35	1.00 V	0	25.78	29.07

REMARKS:

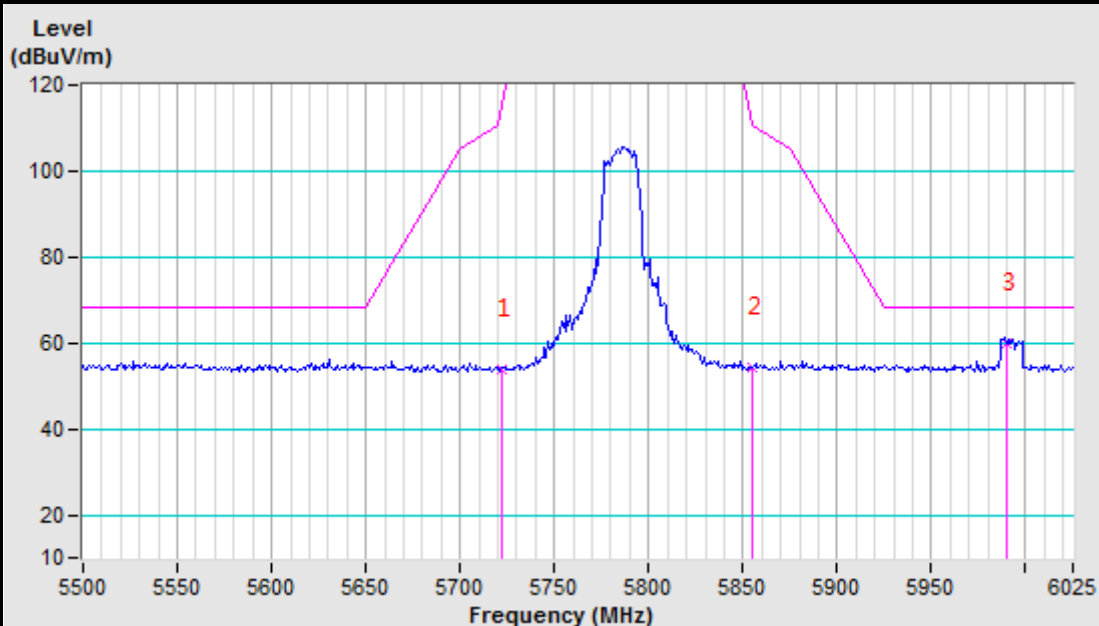
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5785MHz Horizontal



5785MHz Vertical



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

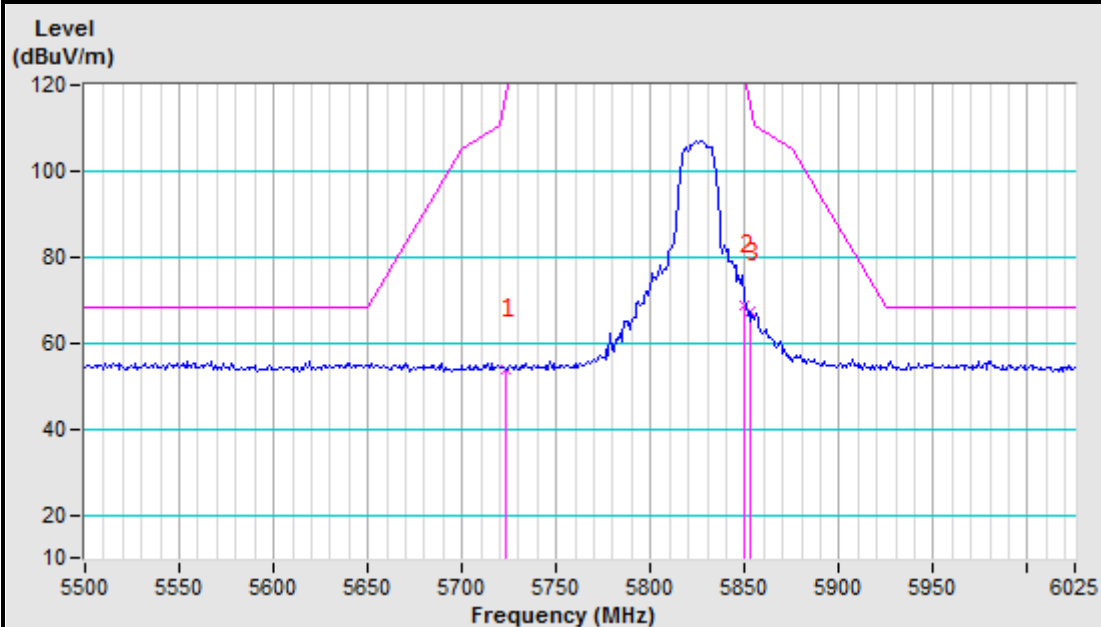
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5723.32	53.91 PK	118.36	-64.45	2.00 H	0	40.91	13.00
2	*5825.00	108.85 PK			1.00 H	99	95.43	13.42
3	*5825.00	103.48 AV			1.00 H	99	90.06	13.42
4	#5850.00	68.77 PK	122.20	-53.43	2.00 H	0	55.25	13.52
5	#5852.52	67.17 PK	116.44	-49.27	2.00 H	0	53.64	13.53
6	11650.00	54.48 PK	74.00	-19.52	1.00 H	0	31.23	23.25
7	11650.00	43.65 AV	54.00	-10.35	1.00 H	0	20.40	23.25
8	#17475.00	58.41 PK	68.20	-9.79	1.00 H	0	29.07	29.34
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	*5825.00	106.72 PK			1.00 V	167	93.30	13.42
2	*5825.00	101.46 AV			1.00 V	167	88.04	13.42
3	#5851.68	62.91 PK	118.36	-55.45	1.00 V	0	49.39	13.52
4	#5853.37	61.79 PK	114.53	-52.74	1.00 V	0	48.26	13.53
5	#5993.39	58.94 PK	68.20	-9.26	1.00 V	0	44.85	14.09
6	11650.00	52.36 PK	74.00	-21.64	1.00 V	0	29.11	23.25
7	11650.00	41.76 AV	54.00	-12.24	1.00 V	0	18.51	23.25
8	#17475.00	56.48 PK	68.20	-11.72	1.00 V	0	27.14	29.34

REMARKS:

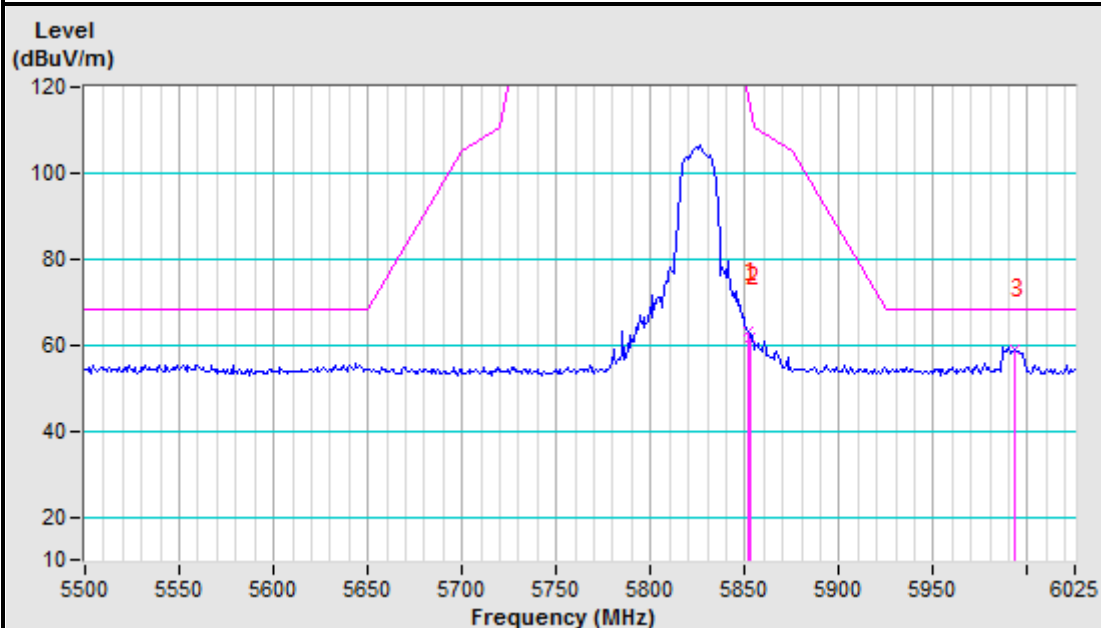
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5825MHz Horizontal



5825MHz Vertical



802.11n (40MHz)

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

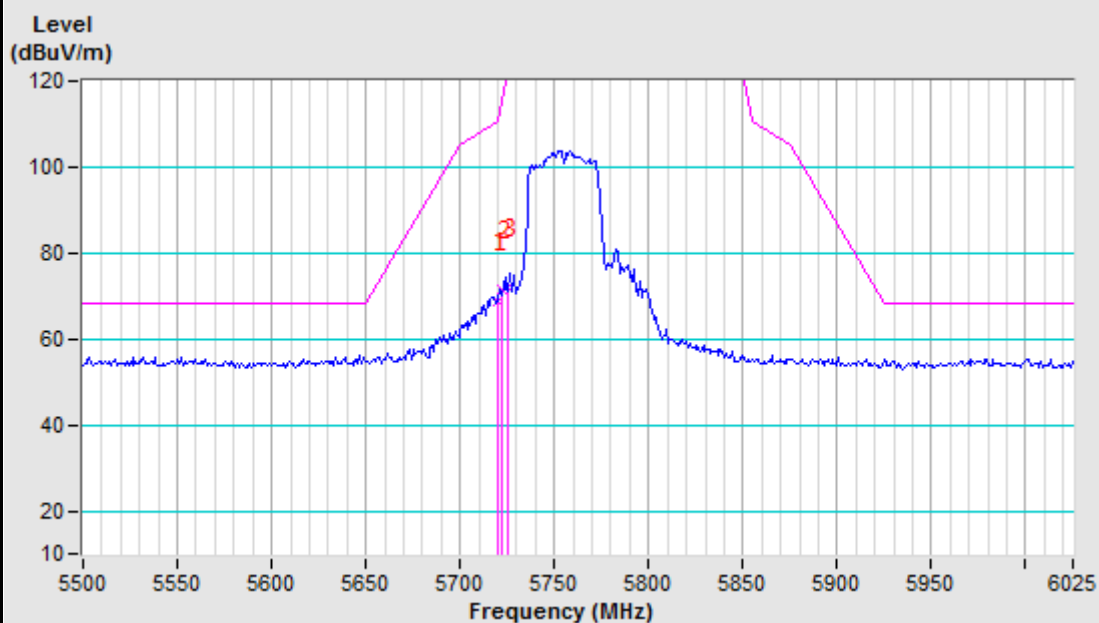
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5719.95	68.60 PK	110.79	-42.19	1.00 H	0	55.61	12.99
2	#5721.63	71.38 PK	114.53	-43.15	1.00 H	0	58.38	13.00
3	#5725.00	71.82 PK	122.20	-50.38	1.00 H	0	58.80	13.02
4	*5755.00	103.67 PK			1.00 H	138	90.54	13.13
5	*5755.00	97.42 AV			1.00 H	138	84.29	13.13
6	11510.00	53.26 PK	74.00	-20.74	1.00 H	0	30.20	23.06
7	11510.00	46.59 AV	54.00	-7.41	1.00 H	0	23.53	23.06
8	#17265.00	54.59 PK	68.20	-13.61	1.00 H	0	25.73	28.86
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	#5719.11	64.66 PK	110.55	-45.89	1.00 V	0	51.67	12.99
2	#5722.48	67.53 PK	116.45	-48.92	1.00 V	0	54.53	13.00
3	#5725.00	67.74 PK	122.20	-54.46	1.00 V	0	54.72	13.02
4	*5755.00	102.04 PK			1.00 V	68	88.91	13.13
5	*5755.00	96.54 AV			1.00 V	68	83.41	13.13
6	11510.00	54.59 PK	74.00	-19.41	1.00 V	0	31.53	23.06
7	11510.00	47.42 AV	54.00	-6.58	1.00 V	0	24.36	23.06
8	#17265.00	55.26 PK	68.20	-12.94	1.00 V	0	26.40	28.86

REMARKS:

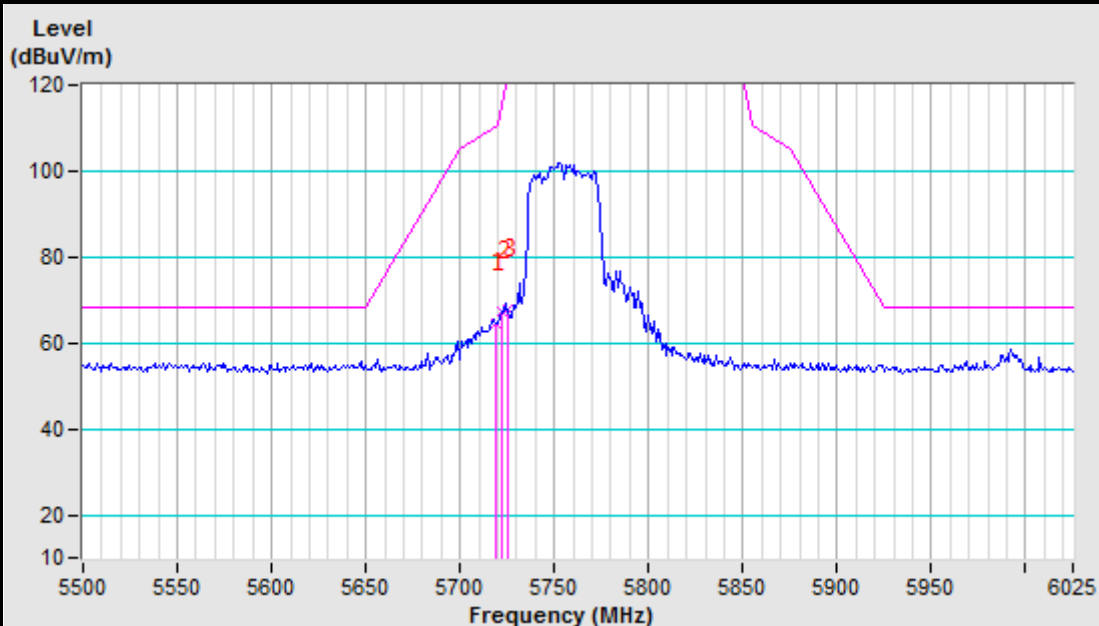
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.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

Band edge Plot

5755MHz Horizontal



5755MHz Vertical



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

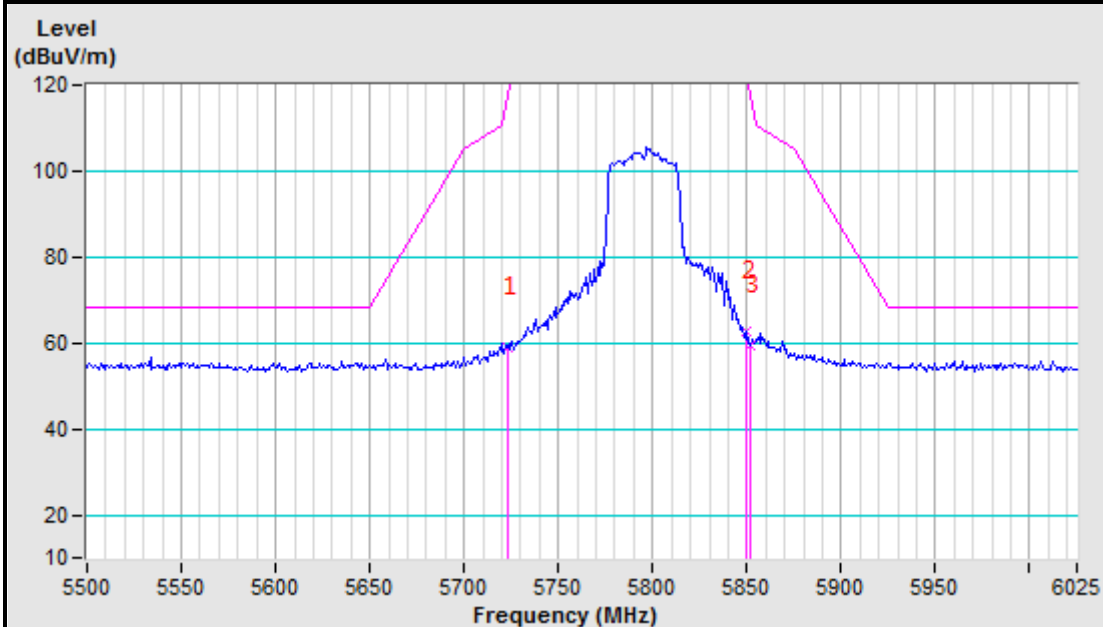
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5723.32	58.93 PK	118.36	-59.43	2.00 H	0	45.93	13.00
2	*5795.00	105.58 PK			1.00 H	126	92.28	13.30
3	*5795.00	100.26 AV			1.00 H	126	86.96	13.30
4	#5850.00	62.82 PK	122.20	-59.38	2.00 H	0	49.30	13.52
5	#5851.68	59.57 PK	118.36	-58.79	2.00 H	0	46.05	13.52
6	11590.00	51.26 PK	74.00	-22.74	1.00 H	0	28.09	23.17
7	11590.00	44.58 AV	54.00	-9.42	1.00 H	0	21.41	23.17
8	#17325.00	55.58 PK	68.20	-12.62	1.00 H	0	26.58	29.00
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	#5724.16	55.53 PK	120.28	-64.75	2.00 V	0	42.51	13.02
2	*5795.00	104.39 PK			1.00 V	75	91.09	13.30
3	*5795.00	99.48 AV			1.00 V	75	86.18	13.30
4	#5850.00	56.26 PK	122.20	-65.94	2.00 V	0	42.74	13.52
5	#5990.50	58.92 PK	68.20	-9.28	2.00 V	0	44.84	14.08
6	11590.00	50.19 PK	74.00	-23.81	1.00 V	0	27.02	23.17
7	11590.00	43.36 AV	54.00	-10.64	1.00 V	0	20.19	23.17
8	#17325.00	53.18 PK	68.20	-15.02	1.00 V	0	24.18	29.00

REMARKS:

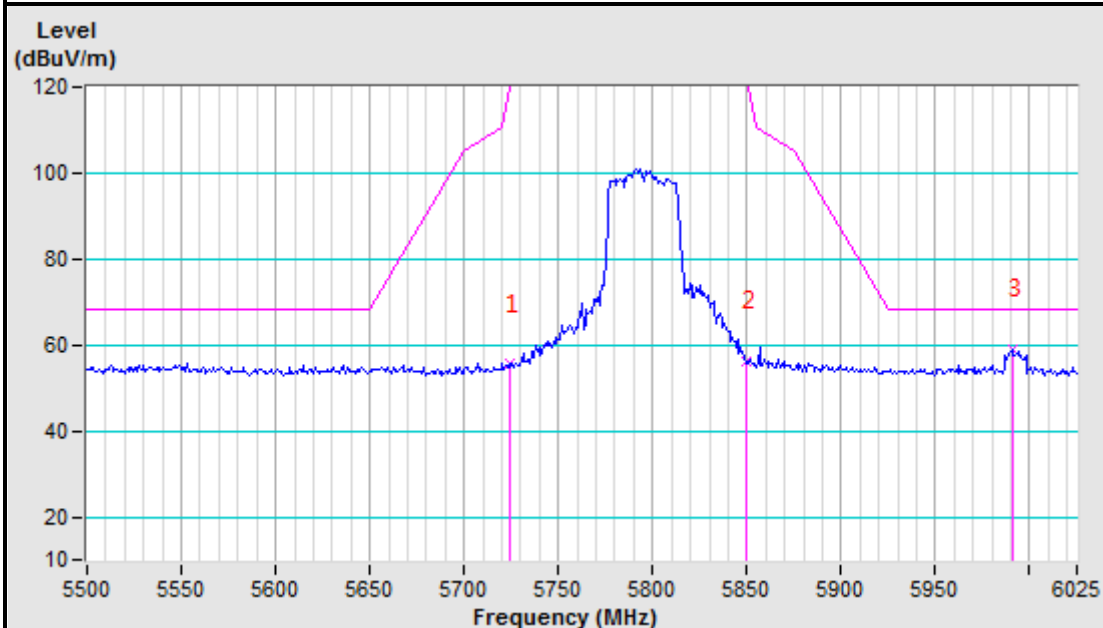
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.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

Band edge Plot

5795MHz Horizontal



5795MHz Vertical





**BUREAU
VERITAS**

Test Report No.: RF2106WDG0376-4

802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5722.48	66.55 PK	116.45	-49.90	1.00 H	0	53.55	13.00
2	#5725.00	70.07 PK	122.20	-52.13	1.00 H	0	57.05	13.02
3	*5775.00	99.58 PK			1.00 H	60	86.37	13.21
4	*5775.00	93.26 AV			1.00 H	60	80.05	13.21
5	#5850.00	67.42 PK	122.20	-54.78	1.00 H	0	53.90	13.52
6	#5853.37	65.50 PK	114.53	-49.03	1.00 H	0	51.97	13.53
7	11550.00	51.26 PK	74.00	-22.74	1.00 H	0	28.15	23.11
8	11550.00	39.45 AV	54.00	-14.55	1.00 H	0	16.34	23.11
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	#5721.63	63.77 PK	114.53	-50.76	1.00 V	0	50.77	13.00
2	#5725.00	64.66 PK	122.20	-57.54	1.71 V	356	51.64	13.02
3	*5775.00	102.04 PK			1.00 V	123	88.83	13.21
4	*5775.00	95.48 AV			1.00 V	123	82.27	13.21
5	#5850.00	67.10 PK	122.20	-55.10	1.20 V	0	53.58	13.52
6	#5851.68	64.59 PK	118.36	-53.77	1.00 V	0	51.07	13.52
7	11550.00	52.26 PK	74.00	-21.74	1.00 V	0	29.15	23.11
8	11550.00	41.02 AV	54.00	-12.98	1.00 V	0	17.91	23.11

REMARKS:

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

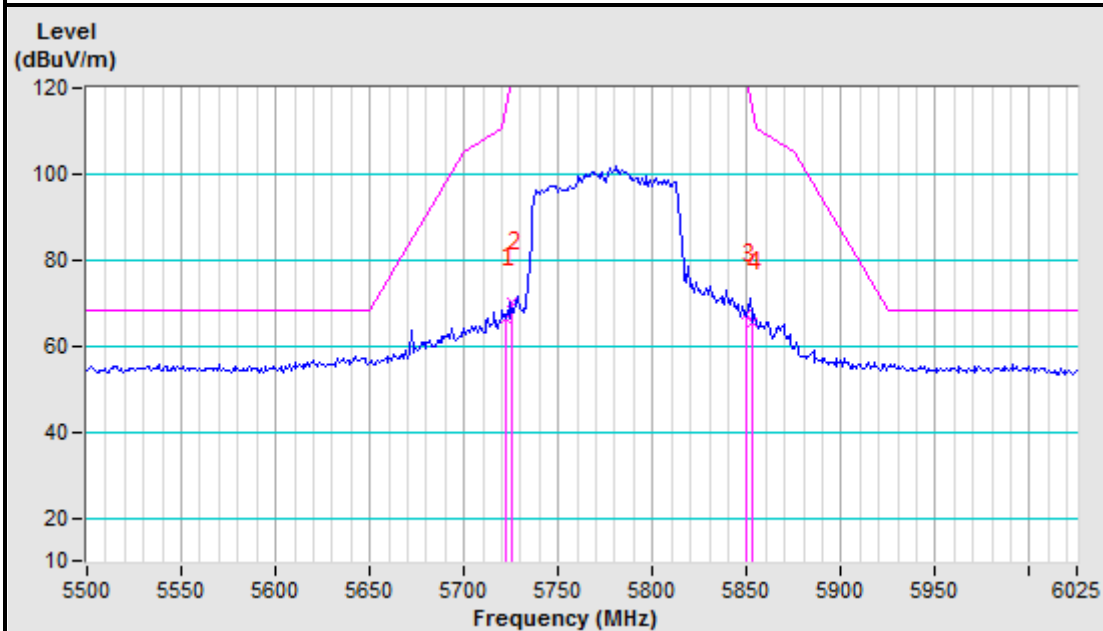


BUREAU
VERITAS

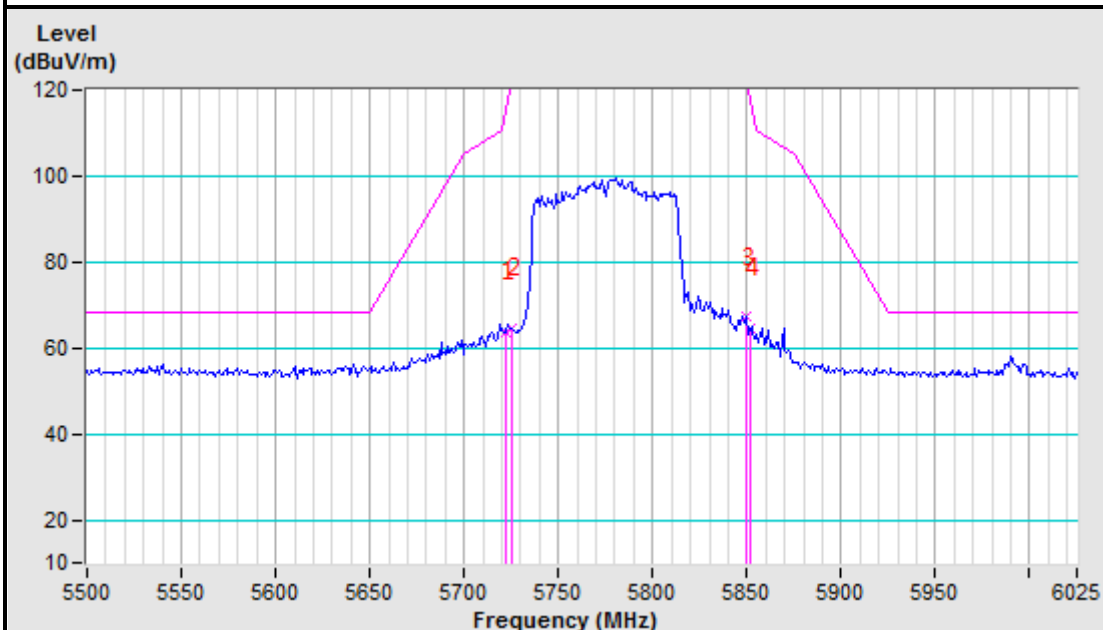
Test Report No.: RF2106WDG0376-4

Band edge Plot

5775MHz Horizontal



5775MHz Vertical



3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTES:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 07,22
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 16,21
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A

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

3.2.3 TEST PROCEDURES

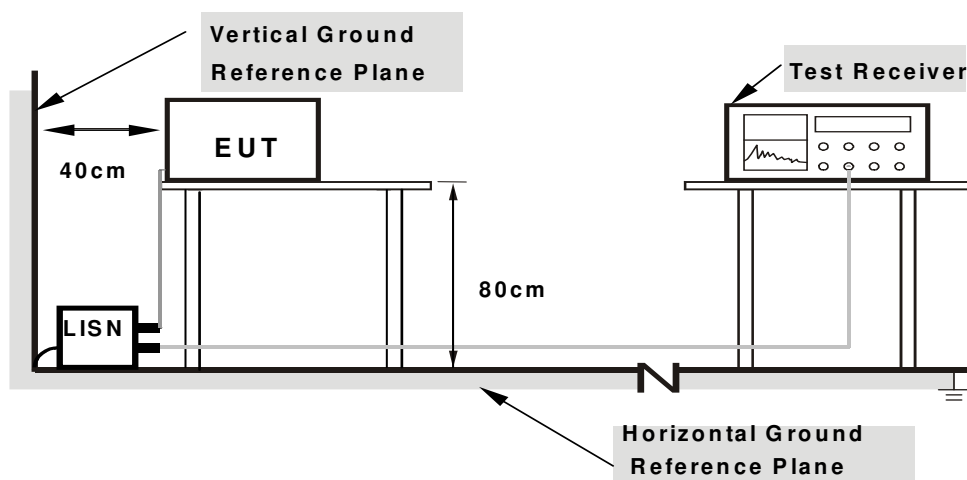
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) 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

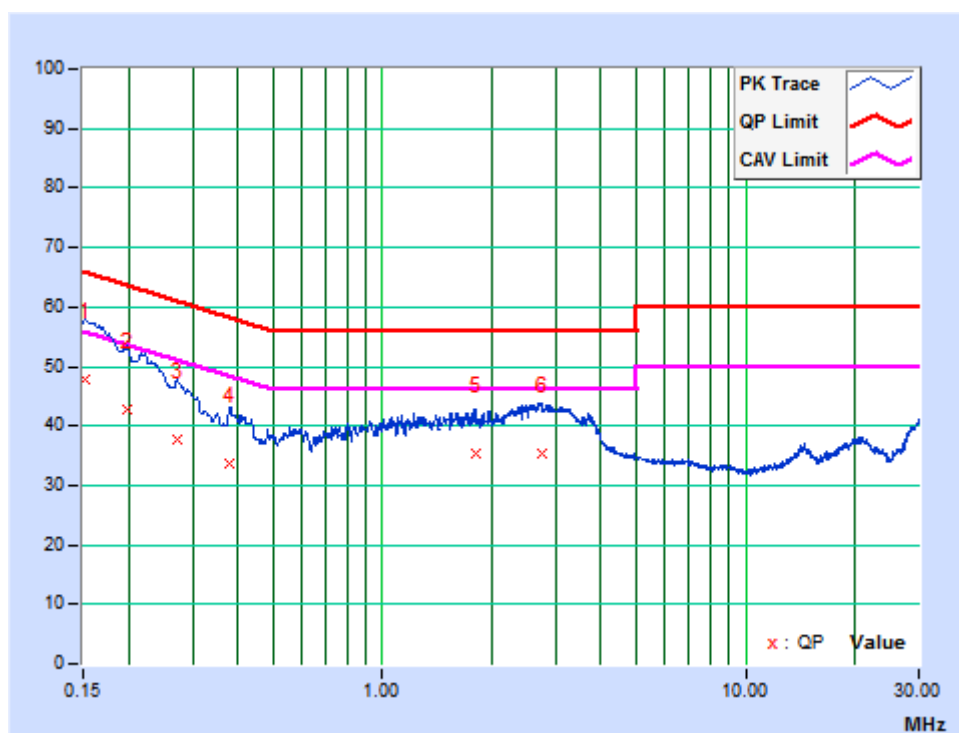
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11a CH36

PHASE	Line	6dB BANDWIDTH	9kHz
-------	------	---------------	------

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	0.15225	9.66	38.29	10.48	47.95	20.14	65.88	55.88	-17.92	-35.73
2	0.19721	9.71	32.89	6.04	42.60	15.75	63.73	53.73	-21.13	-37.98
3	0.27216	9.76	27.86	7.98	37.62	17.74	61.05	51.05	-23.43	-33.31
4	0.38159	9.81	23.85	9.11	33.66	18.92	58.24	48.24	-24.58	-29.32
5	1.81050	9.84	25.37	13.51	35.21	23.35	56.00	46.00	-20.79	-22.65
6	2.75100	9.85	25.63	12.57	35.48	22.42	56.00	46.00	-20.52	-23.58

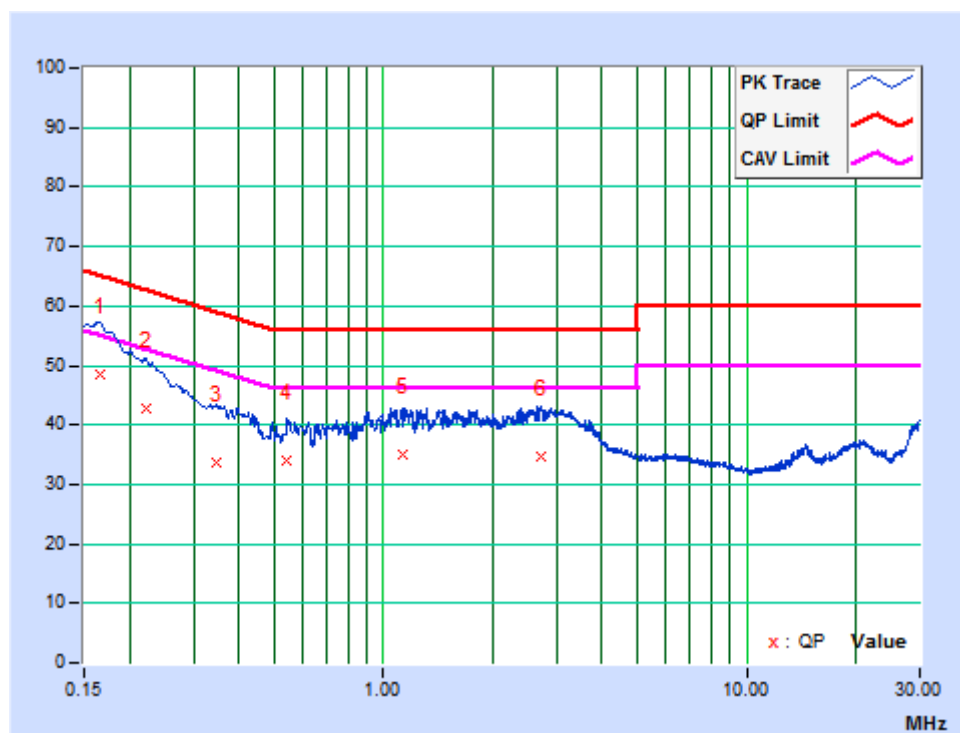
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. The emission levels of other frequencies were very low against the limit.
 3. Margin value = Emission level - Limit value
 4. Correction factor = Insertion loss + Cable loss
 5. Emission Level = Correction Factor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



PHASE	Neutral	6dB BANDWIDTH	9kHz
-------	---------	---------------	------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16575	9.67	38.95	19.08	48.62	28.75	65.17	55.17	-16.55	-26.42
2	0.22151	9.73	32.91	15.72	42.64	25.45	62.76	52.76	-20.12	-27.31
3	0.34517	9.81	24.01	9.90	33.82	19.71	59.08	49.08	-25.26	-29.37
4	0.54375	9.84	24.04	11.26	33.88	21.10	56.00	46.00	-22.12	-24.90
5	1.12425	9.83	25.27	12.09	35.10	21.92	56.00	46.00	-20.90	-24.08
6	2.72625	9.87	24.70	11.89	34.57	21.76	56.00	46.00	-21.43	-24.24

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



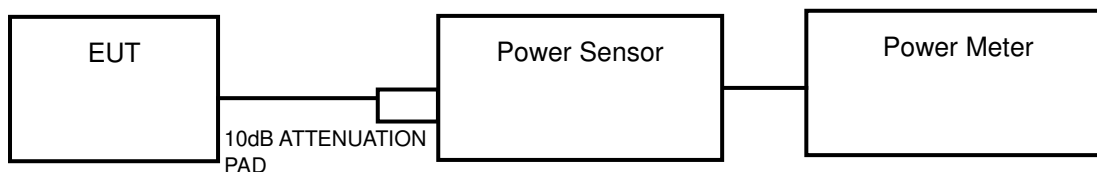
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

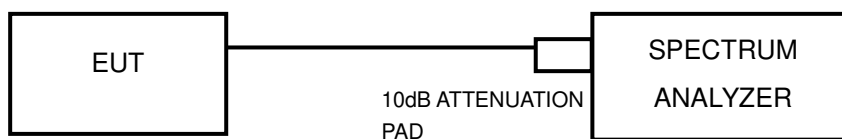
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

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

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	N/A
Power Sensor	Keysight	U2021XA	MY55060018	May 09, 22
Power Meter	Anritsu	ML2495A	1139001	Feb. 24,22
Power Sensor	Anritsu	MA2411B	1531155	Feb. 24,22
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Nov. 03,21
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 10,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Feb. 24,22
Signal Generator	Agilent	N5183A	MY50140980	Aug. 10,21
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 04,21
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	N/A
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A

NOTES:

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

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = RMS.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

FOR 6dB BANDWIDTH

- 1) Set RBW = 100 kHz.
- 2) Set the video bandwidth (VBW) ≥ 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	15.80	38.019	24.00	PASS
40	5200	15.88	38.726	24.00	PASS
48	5240	16.71	46.881	24.00	PASS
52	5260	15.21	33.189	24.00	PASS
60	5300	15.10	32.359	24.00	PASS
64	5320	15.26	33.574	24.00	PASS
100	5500	13.95	24.831	24.00	PASS
116	5580	13.81	24.044	24.00	PASS
140	5700	13.70	23.442	24.00	PASS
149	5745	17.80	60.256	30.00	PASS
157	5785	17.17	52.119	30.00	PASS
165	5825	16.80	47.863	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

1. $11\text{dBm} + 10\log(21.73) = 24.37\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(21.74) = 24.37\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(21.69) = 24.36\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(21.74) = 24.37\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(21.65) = 24.35\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(21.80) = 24.38\text{ dBm} > 24\text{dBm}$

802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	15.43	34.914	24.00	PASS
40	5200	15.58	36.141	24.00	PASS
48	5240	16.24	42.073	24.00	PASS
52	5260	14.90	30.903	24.00	PASS
60	5300	14.95	31.261	24.00	PASS
64	5320	15.09	32.285	24.00	PASS
100	5500	13.85	24.266	24.00	PASS
116	5580	13.93	24.717	24.00	PASS
140	5700	13.45	22.131	24.00	PASS
149	5745	17.48	55.976	30.00	PASS
157	5785	16.84	48.306	30.00	PASS
165	5825	16.28	42.462	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (21.70) = 24.36 dBm > 24dBm

11dBm + 10log (21.90) = 24.40 dBm > 24dBm

11dBm + 10log (21.89) = 24.40 dBm > 24dBm

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

11dBm + 10log (21.88) = 24.40 dBm > 24dBm

11dBm + 10log (21.97) = 24.42 dBm > 24dBm

802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	15.75	37.584	24.00	PASS
46	5230	16.19	41.591	24.00	PASS
54	5270	14.78	30.061	24.00	PASS
62	5310	15.09	32.285	24.00	PASS
102	5510	13.85	24.266	24.00	PASS
110	5550	13.60	22.909	24.00	PASS
134	5670	13.66	23.227	24.00	PASS
151	5755	17.37	54.576	30.00	PASS
159	5795	16.68	46.559	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

$11\text{dBm} + 10\log(41.20) = 27.15\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(41.10) = 27.14\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(40.88) = 27.12\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(41.20) = 27.15\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(41.05) = 29.13\text{ dBm} > 24\text{dBm}$

802.11ac (80MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
42	5210	12.69	18.578	24.00	PASS
58	5290	13.53	22.542	24.00	PASS
106	5530	12.94	19.679	24.00	PASS
155	5775	13.77	23.823	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

$11\text{dBm} + 10\log(82.23) = 30.15\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(82.42) = 30.16\text{ dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(82.37) = 30.16\text{ dBm} > 24\text{dBm}$

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	21.73	PASS
40	5200	21.63	PASS
48	5240	21.68	PASS
52	5260	21.73	PASS
60	5300	21.74	PASS
64	5320	21.69	PASS
100	5500	21.74	PASS
116	5580	21.65	PASS
140	5700	21.80	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	21.91	PASS
40	5200	23.00	PASS
48	5240	21.77	PASS
52	5260	21.70	PASS
60	5300	21.90	PASS
64	5320	21.89	PASS
100	5500	21.73	PASS
116	5580	21.88	PASS
140	5700	21.97	PASS

802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	47.87	PASS
46	5230	49.88	PASS
54	5270	41.20	PASS
62	5310	41.10	PASS
102	5510	40.88	PASS
110	5550	41.20	PASS
134	5670	41.05	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
42	5210	85.28	PASS
58	5290	82.23	PASS
106	5530	82.42	PASS

6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.37	PASS
157	5785	16.38	PASS
165	5825	16.37	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	17.58	PASS
157	5785	17.57	PASS
165	5825	17.57	PASS

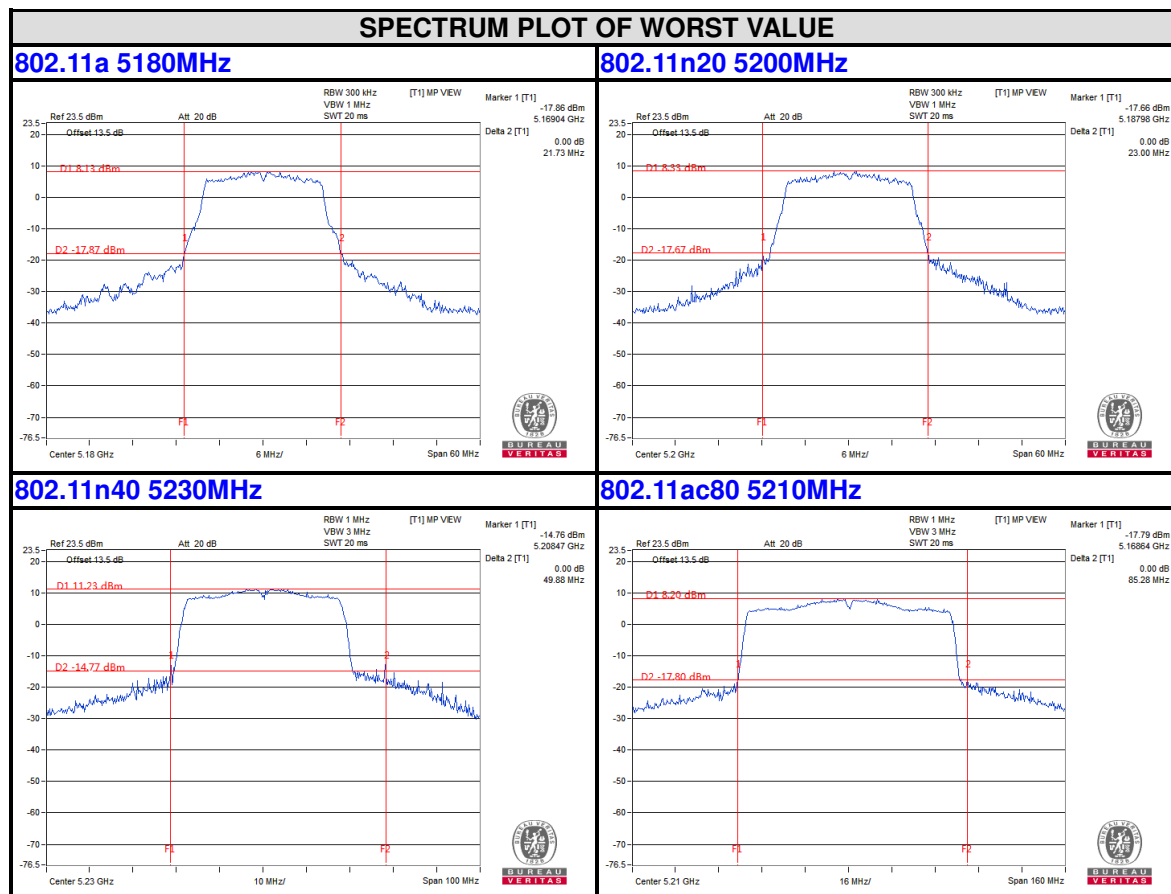
802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	36.14	PASS
159	5795	35.87	PASS

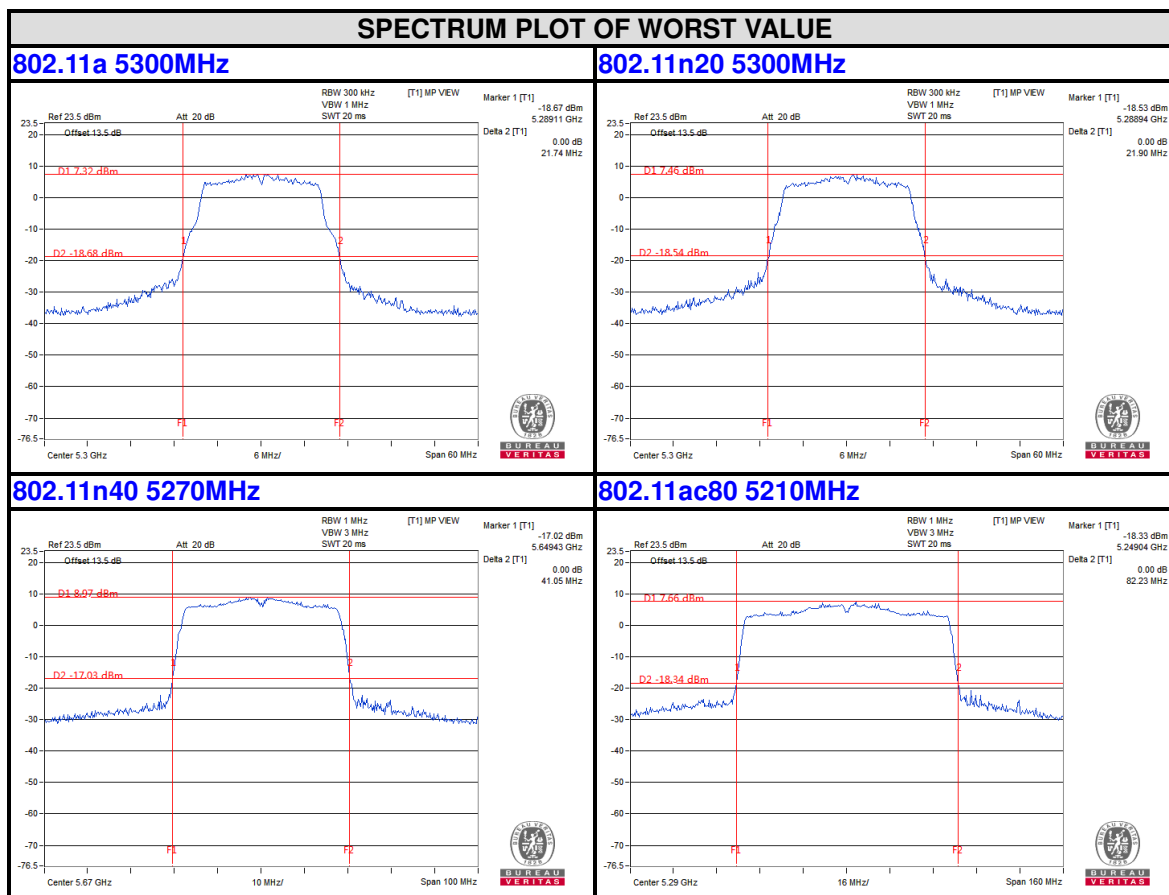
802.11ac (80MHz)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
155	5775	75.73	PASS

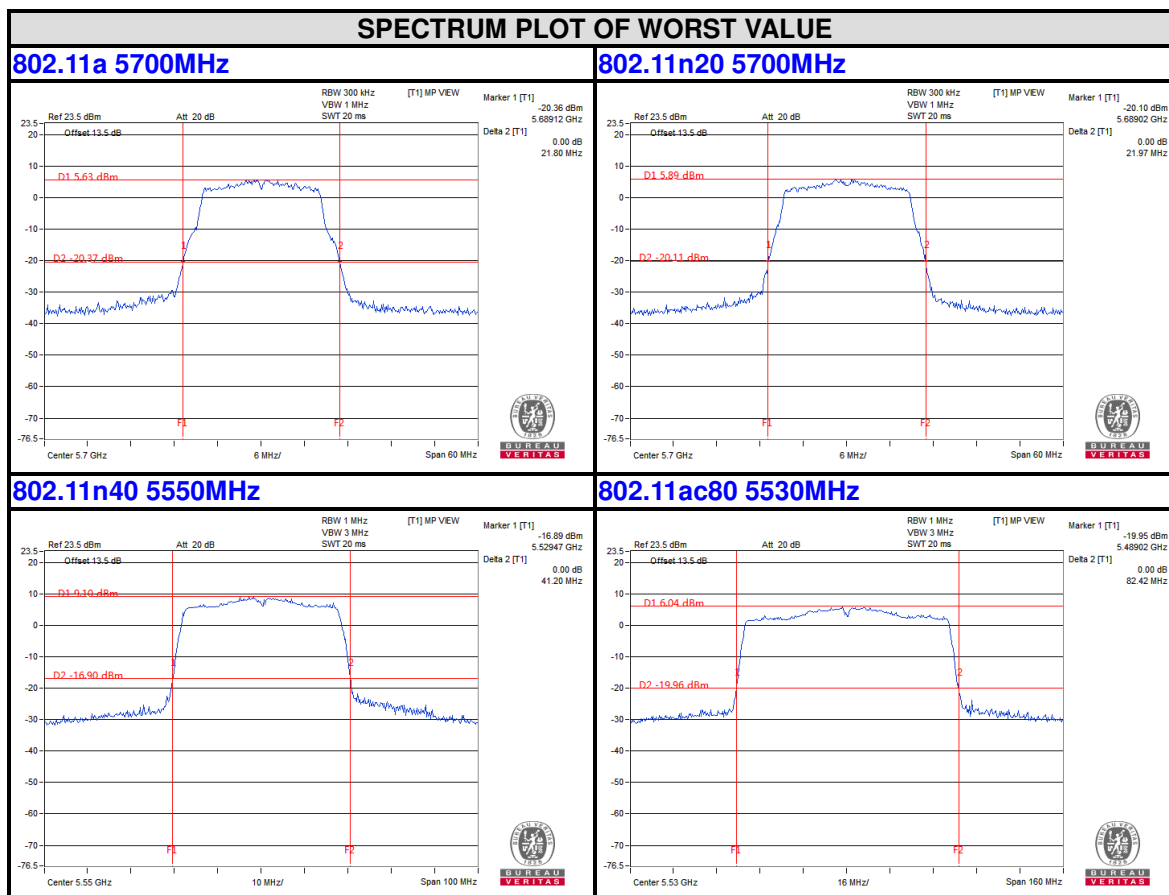
**26dB bandwidth Test Plot
For 5150-5250MHz**



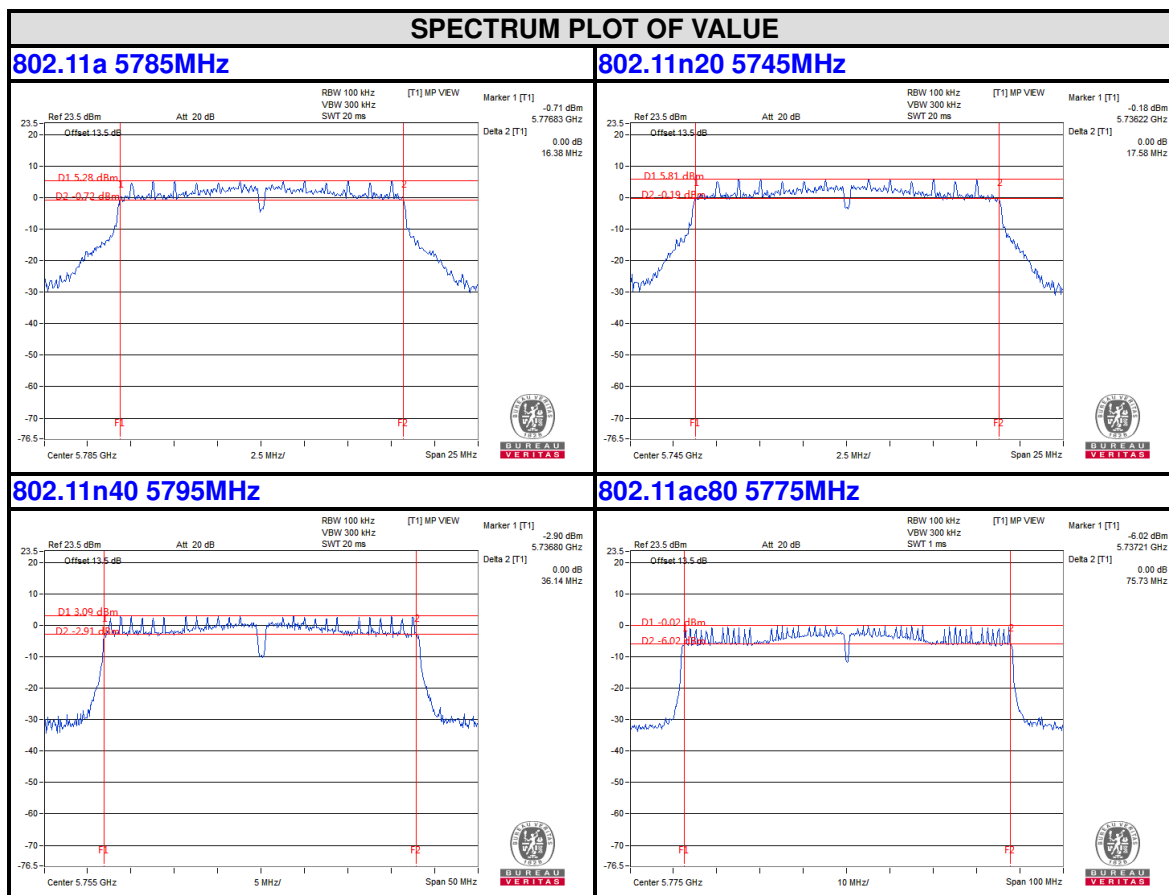
For 5250-5350MHz



For 5470-5725MHz



6dB BANDWIDTH For 5725-5850MHz

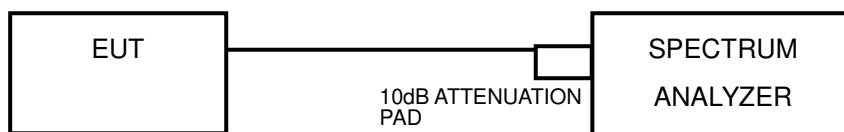


3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

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

For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW = 1 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6

3.4.7 TEST RESULTS

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

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	4.46	0.128	4.59	11.00	PASS
40	5200	4.62	0.128	4.75	11.00	PASS
48	5240	5.15	0.128	5.28	11.00	PASS
52	5260	3.40	0.128	3.53	11.00	PASS
60	5300	3.71	0.128	3.84	11.00	PASS
64	5320	3.70	0.128	3.83	11.00	PASS
100	5500	2.32	0.128	2.45	11.00	PASS
116	5580	2.23	0.128	2.36	11.00	PASS
140	5700	1.97	0.128	2.10	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-2.76	-0.54	0.128	-0.41	30.00	PASS
157	5785	-2.92	-0.70	0.128	-0.57	30.00	PASS
165	5825	-3.31	-1.09	0.128	-0.96	30.00	PASS

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

802.11n (20MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	3.86	0.164	4.02	11.00	PASS
40	5200	3.93	0.164	4.09	11.00	PASS
48	5240	4.45	0.164	4.61	11.00	PASS
52	5260	2.77	0.164	2.93	11.00	PASS
60	5300	2.96	0.164	3.12	11.00	PASS
64	5320	3.19	0.164	3.35	11.00	PASS
100	5500	1.61	0.164	1.77	11.00	PASS
116	5580	1.62	0.164	1.78	11.00	PASS
140	5700	1.53	0.164	1.69	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-3.18	-0.96	0.164	-0.80	30.00	PASS
157	5785	-3.51	-1.29	0.164	-1.13	30.00	PASS
165	5825	-3.89	-1.67	0.164	-1.51	30.00	PASS

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

802.11n (40MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
38	5190	0.98	0.278	1.26	11.00	PASS
46	5230	1.15	0.278	1.43	11.00	PASS
54	5270	-0.24	0.278	0.04	11.00	PASS
62	5310	-0.17	0.278	0.11	11.00	PASS
102	5510	-1.50	0.278	-1.22	11.00	PASS
110	5550	-1.43	0.278	-1.15	11.00	PASS
134	5670	-1.32	0.278	-1.04	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	-6.87	-4.65	0.278	-4.37	30.00	PASS
159	5795	-7.49	-5.27	0.278	-4.99	30.00	PASS

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

802.11ac (80MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
42	5210	-2.63	0.540	-2.09	11.00	PASS
58	5290	-3.64	0.540	-3.10	11.00	PASS
106	5530	-4.68	0.540	-4.14	11.00	PASS

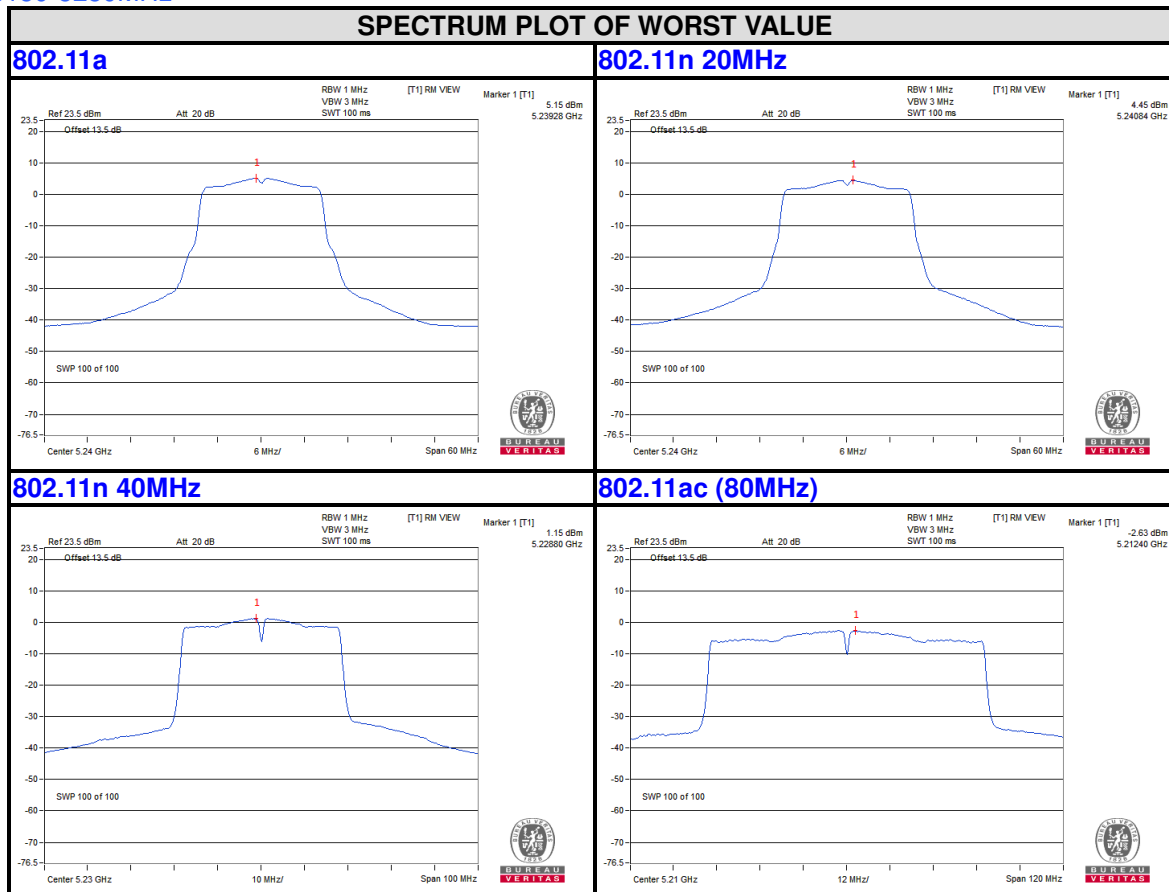
Note: Refer to section 2.3 for duty cycle spectrum plot.

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
155	5775	-10.84	-8.62	0.540	-8.08	30.00	PASS

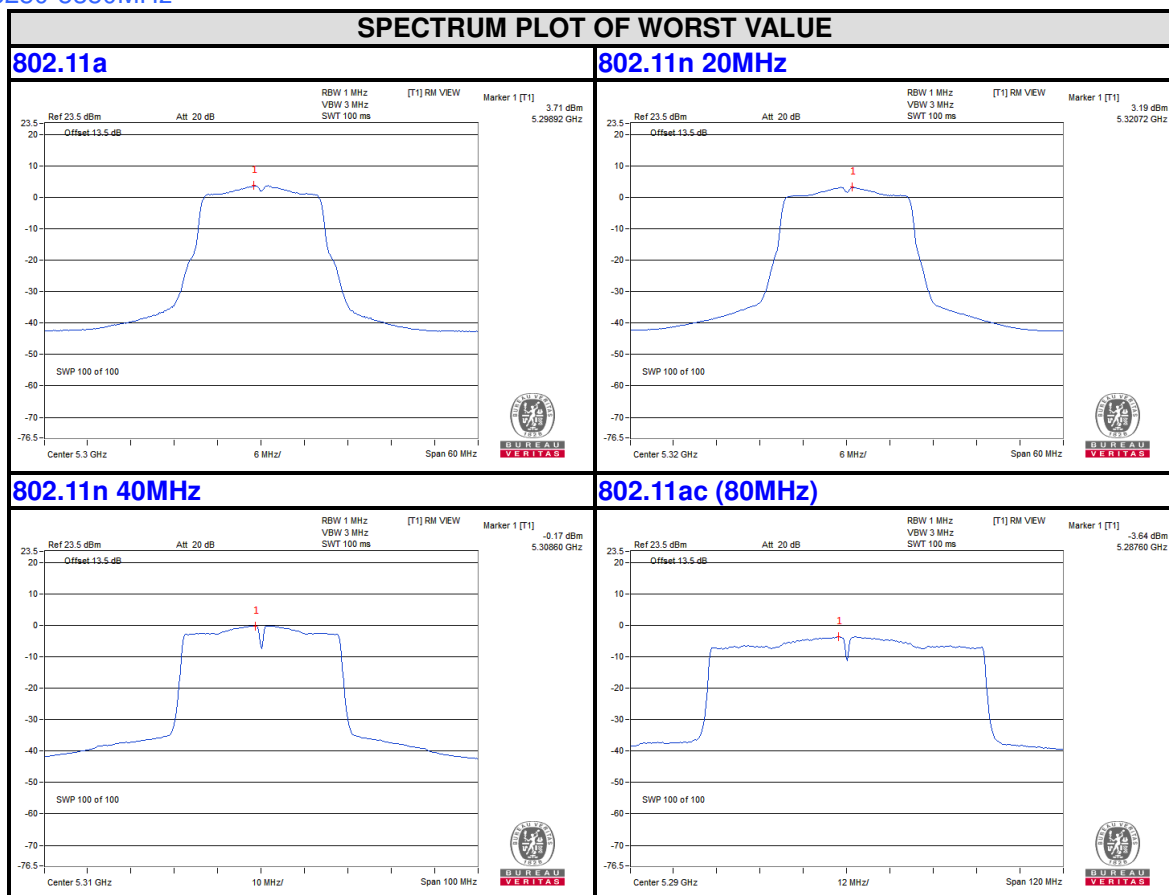
Note: Refer to section 2.3 for duty cycle spectrum plot.

PSD Test Plot

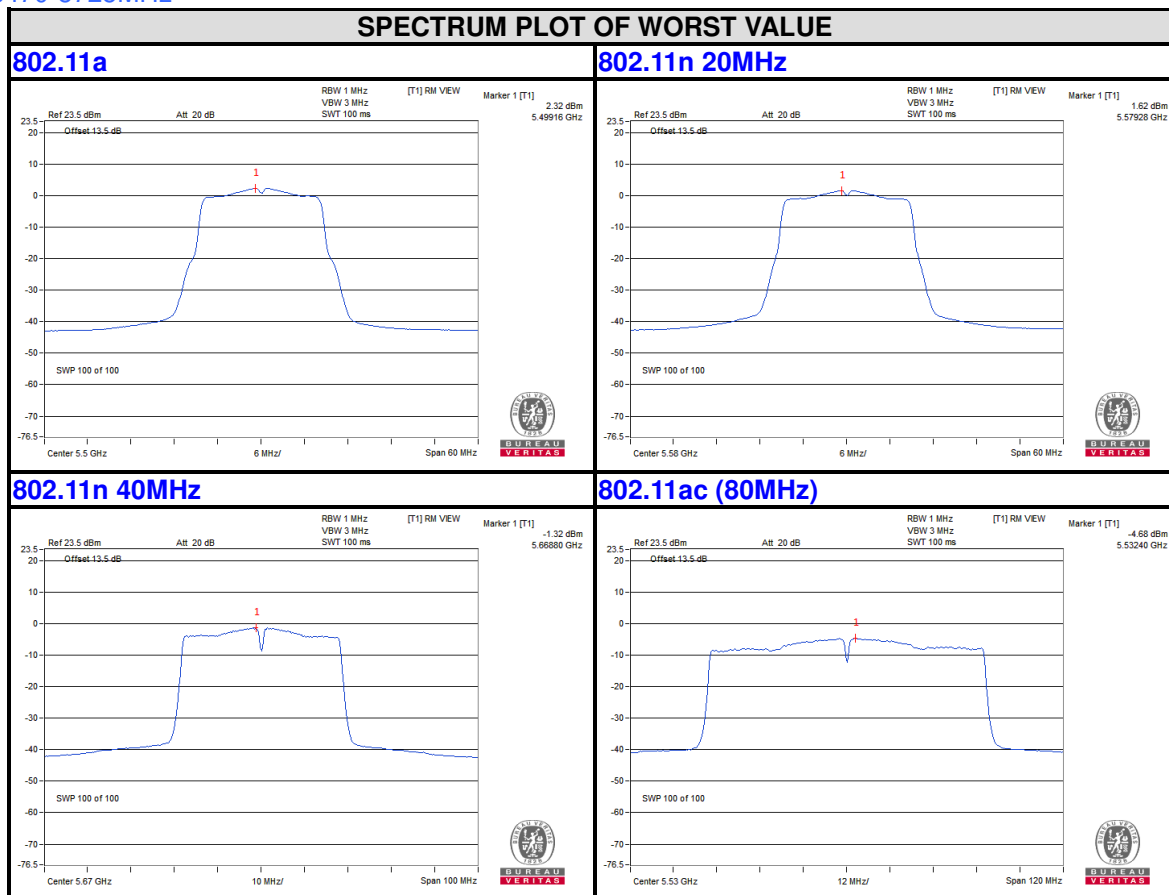
BAND 1
5150-5250MHz



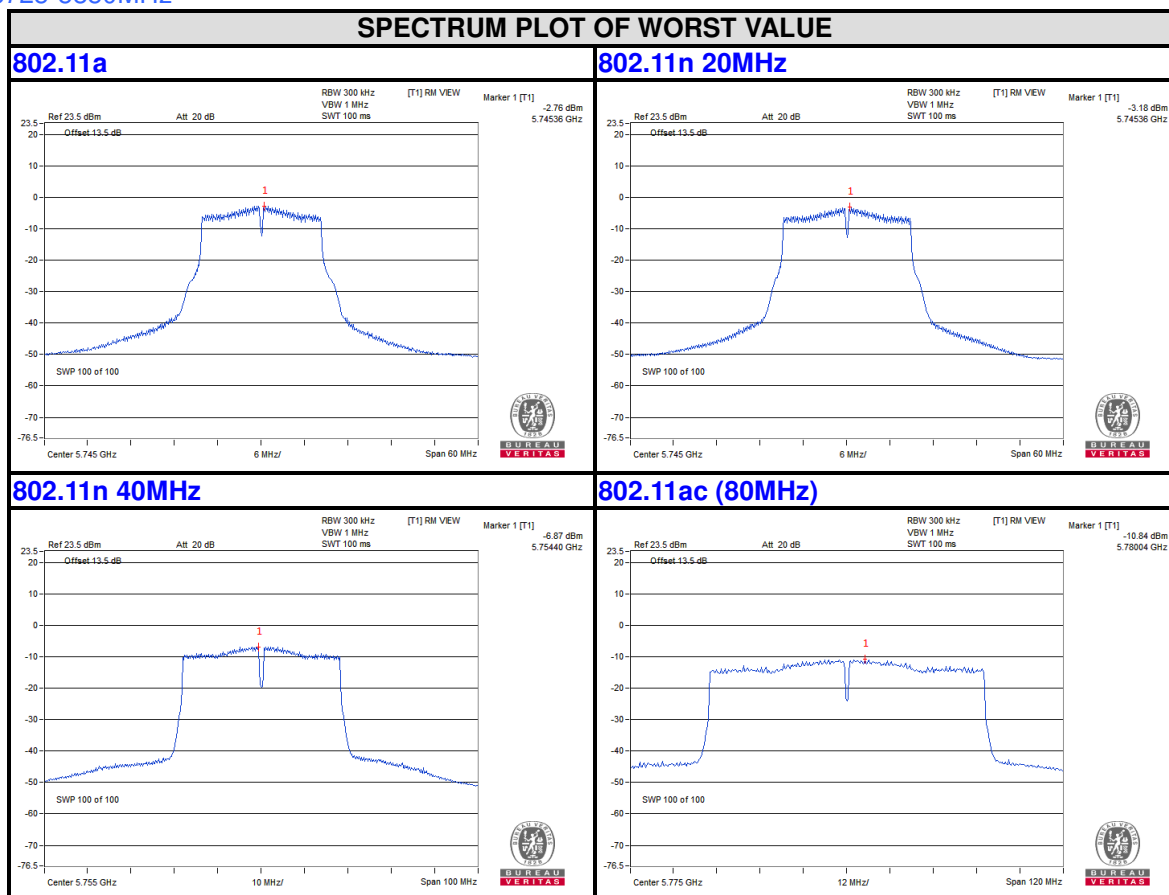
BAND 2
5250-5350MHz



BAND 3
5470-5725MHz



BAND4
5725-5850MHz

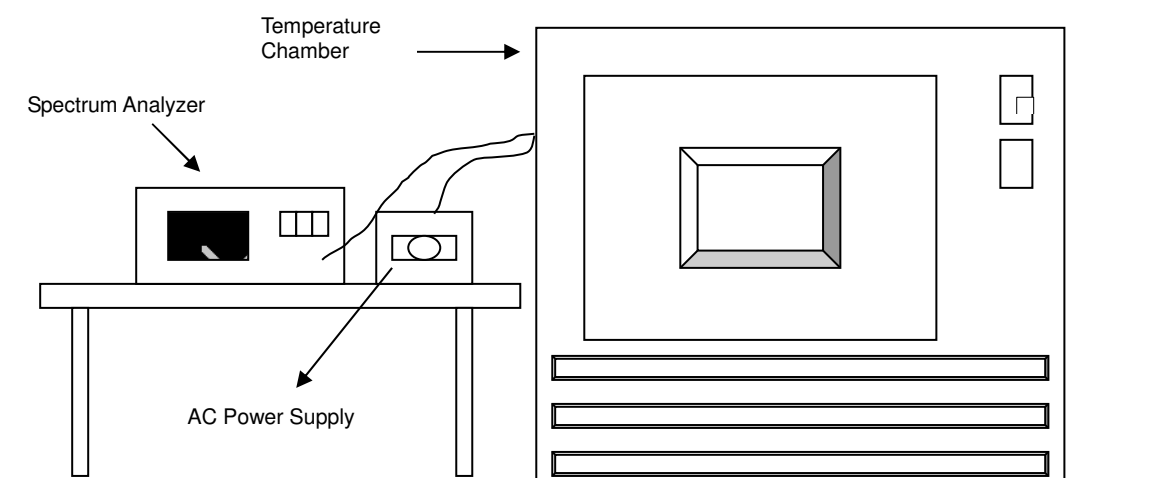


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.4 TEST PROCEDURE

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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

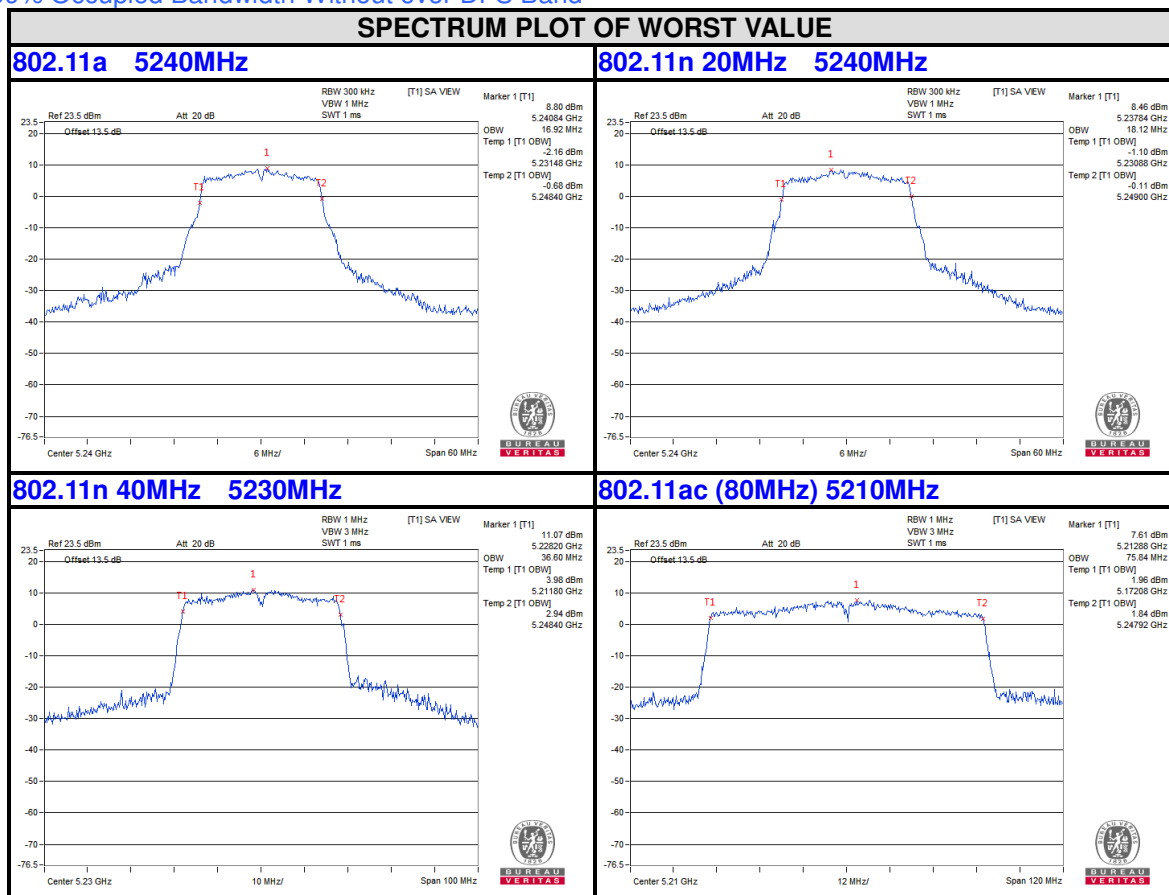
Set the EUT transmit at un-modulation mode to test frequency stability.

3.5.7 TEST RESULTS

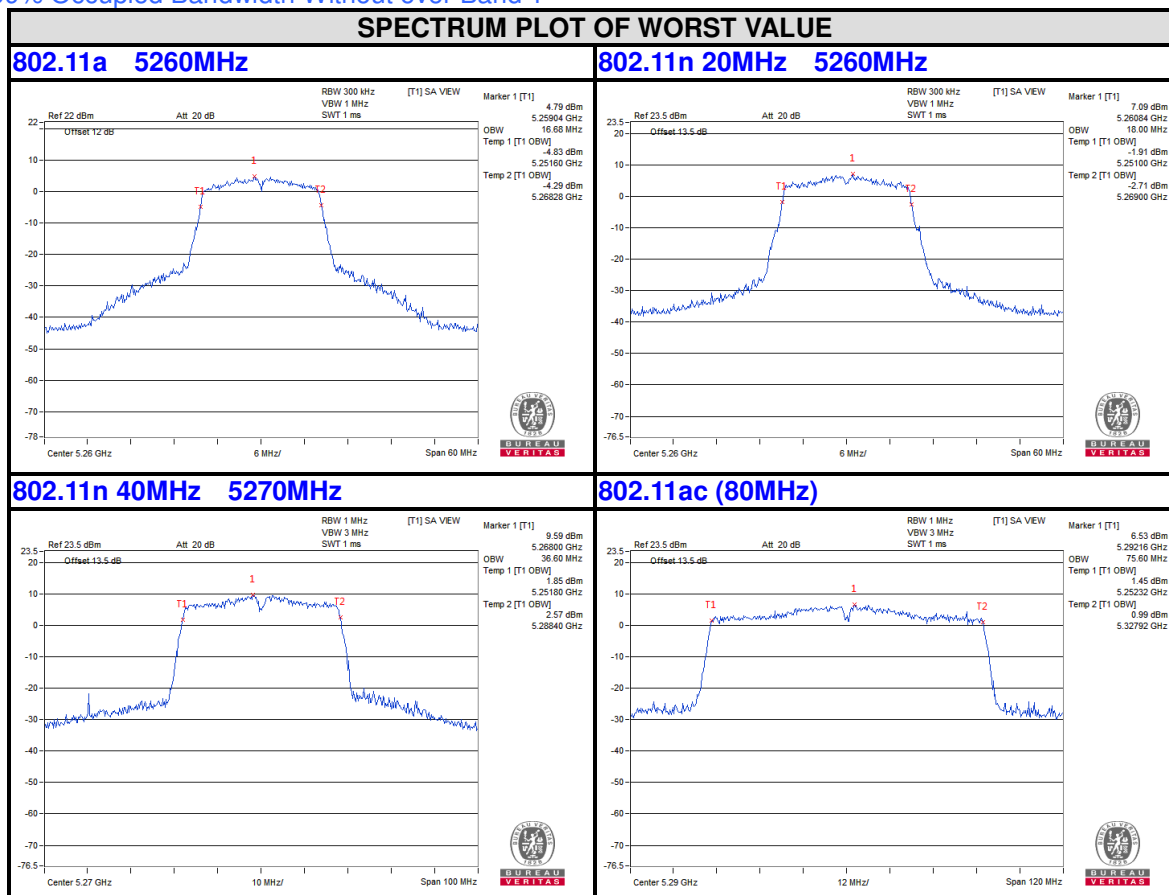
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.9752	-0.00048	5179.9769	-0.00045	5179.9749	-0.00048	5179.9752	-0.00048
40	120	5179.9972	-0.00005	5179.9958	-0.00008	5179.995	-0.00010	5179.9966	-0.00007
30	120	5179.9923	-0.00015	5179.9892	-0.00021	5179.9883	-0.00023	5179.9914	-0.00017
20	120	5179.9791	-0.00040	5179.9805	-0.00038	5179.9771	-0.00044	5179.9813	-0.00036
10	120	5180.0145	0.00028	5180.01	0.00019	5180.014	0.00027	5180.0137	0.00026
0	120	5179.9824	-0.00034	5179.9839	-0.00031	5179.9818	-0.00035	5179.9807	-0.00037
-10	120	5179.9905	-0.00018	5179.9911	-0.00017	5179.9916	-0.00016	5179.9893	-0.00021
-20	120	5180.0097	0.00019	5180.0129	0.00025	5180.0131	0.00025	5180.0118	0.00023
-30	120	5180.0061	0.00012	5180.0088	0.00017	5180.0066	0.00013	5180.0097	0.00019

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	5179.9781	-0.00042	5179.9811	-0.00036	5179.9771	-0.00044	5179.9823	-0.00034
	120	5179.9791	-0.00040	5179.9805	-0.00038	5179.9771	-0.00044	5179.9813	-0.00036
	102	5179.9799	-0.00039	5179.9803	-0.00038	5179.9772	-0.00044	5179.9815	-0.00036

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



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





Test Report No.: RF2106WDG0376-4

4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



Test Report No.: RF2106WDG0376-4

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

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

---END---