





TEST REPORT

Applicant	Particle Industries,Inc
Address	325 9th Street, San Francisco, CA 94103 United States

Manufacturer or Supplier	Particle Industries,Inc
Address	325 9th Street, San Francisco, CA 94103 United States
Product Name	Wi-Fi Module
Brand Name	Particle
Model	P2
Additional Model & Model Difference	N/A
Date of tests	Feb. 21, 2021 ~ Apr. 11, 2022

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

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
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Date: Jul. 18, 2022

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/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. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. 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.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2202WDG0092-3	Original release.	May 19, 2022
RF2207WDG0104-3	Based on the original report RF2202WDG0092-3 updated the label, but it doesn't need to be retested.	Jul. 18, 2022

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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	Meet the requirement of limit.	

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.05dB
	9KHz ~ 30MHz	2.16dB
Dadiated emissions	30MHz ~ 1GMHz	3.82dB
Radiated emissions	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

Particle	PROPUST	Wi-Fi Module
P2 POWER SUPPLY DC 3.3V		
POWER SUPPLY DC 3.3V	BRAND	
DC 3.3V	MODEL NO.	P2
MODULATION TYPE 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM	FCC ID	2AEMI-P2
MODULATION TECHNOLOGY	POWER SUPPLY	DC 3.3V
### RANSFER RATE 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11a: up to 150Mbps 802.11a: up to 200.0Mbps 802.11a: up to 200.0Mbps 5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz 5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n, 11ac (20MHz) 2 channels for 802.11a, 802.11n, 11ac (40MHz): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11a, 802.11n (20MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n, 11ac (20MHz) 2 channels for 802.11a, 802.11n, 11ac (40MHz) 81.283mW for 5180 ~ 5240MHz (Maximum AVG Power) 97.949mW for 5500 ~ 5320MHz (Maximum AVG Power) 97.949mW for 5500 ~ 5320MHz (Maximum AVG Power) 91.411mW for 5745 ~ 5825MHz (Maximum AVG Power) 91.411mW for 5745 ~ 5825MHz (Maximum AVG Power) 5180 ~ 5240MHz: PCB antenna with 1.28dBi gain External PCB Antenna with -0.08dBi gain 5260 ~ 5320MHz: PCB antenna with 1.60dBi gain External PCB Antenna with 1.74dBi gain External PCB Antenna with 1.74dBi gain External PCB Antenna with 1.74dBi gain External PCB Antenna with 1.26dBi gain 5745 ~ 5825MHz: PCB antenna with 1.26dBi gain External PCB Antenna with 1.26dBi	MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
S02.11n: up to 150Mbps	MODULATION TECHNOLOGY	OFDM
S500 ~ 5700MHz, 5745 ~ 5825MHz	TRANSFER RATE	802.11n: up to 150Mbps 802.11ac : up to 200.0Mbps
A channels for 802.11a, 802.11n,11ac (20MHz)	OPERATING FREQUENCY	· · · · · · · · · · · · · · · · · · ·
ANTENNA TYPE 81.658mW for 5260 ~ 5320MHz (Maximum AVG Power) 97.949mW for 5500 ~ 5700MHz (Maximum AVG Power) 91.411mW for 5745 ~ 5825MHz (Maximum AVG Power) 5180 ~ 5240MHz: PCB antenna with 1.28dBi gain External PCB Antenna with -0.32dBi gain 5260 ~ 5320MHz: PCB antenna with 1.60dBi gain External PCB Antenna with -0.08dBi gain 5500 ~ 5700MHz: PCB antenna with 1.74dBi gain External PCB Antenna with 0.87dBi gain 5745 ~ 5825MHz: PCB antenna with 1.21dBi gain External PCB Antenna with 1.26dBi gain	NUMBER OF CHANNEL	4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz)
PCB antenna with 1.28dBi gain External PCB Antenna with -0.32dBi gain 5260 ~ 5320MHz: PCB antenna with 1.60dBi gain External PCB Antenna with -0.08dBi gain 5500 ~ 5700MHz: PCB antenna with 1.74dBi gain External PCB Antenna with 0.87dBi gain 5745 ~ 5825MHz: PCB antenna with 1.21dBi gain External PCB Antenna with 1.26dBi gain External PCB Antenna with 1.26dBi gain External PCB Antenna with 1.26dBi gain	CONDUCTED OUTPUT POWER	81.658mW for 5260 ~ 5320MHz (Maximum AVG Power) 97.949mW for 5500 ~ 5700MHz (Maximum AVG Power) 91.411mW for 5745 ~ 5825MHz (Maximum AVG Power)
We I divid	ANTENNA TYPE	PCB antenna with 1.28dBi gain External PCB Antenna with -0.32dBi gain 5260 ~ 5320MHz: PCB antenna with 1.60dBi gain External PCB Antenna with -0.08dBi gain 5500 ~ 5700MHz: PCB antenna with 1.74dBi gain External PCB Antenna with 0.87dBi gain 5745 ~ 5825MHz: PCB antenna with 1.21dBi gain
1.1/4	I/O PORTS	Refer to user's manual
CABLE SUPPLIED N/A	CABLE SUPPLIED	N/A

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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.: 2207WDG0104-1) for detailed product photo.
- 3. The Wi-Fi Module uses two antennas, but couldn't transmit simultaneously, the antenna type and gain are different, and the antenna port is the same, so the RF conducted output power is the same. Radiated emission and conducted emission have been evaluated for both antennas respectively, but only the worst antenna data (PCB antenna) is shown in the test report.
- 4. The EUT provides completed transmitters and receivers, the EUT uses only one antenna at any

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

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



2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5250 ~ 5350MHz

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

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

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

	,	,,	,	
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY	
54	5270 MHz	62	5310 MHz	

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FOR 5470 ~ 5725MHz

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

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

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

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

FOR 5725 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY	
151	5755MHz	159	5795MHz	



2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE		APPLICA	ABLE TO		DESCRIPTION		
MODE	RE≥1G	RE<1G	PLC	APCM	DESCRIPTION		
А	V	V	V	V	Powered by DC 3.3V from PCB base support with wifi(5G) link		

Where

RE≥1G: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane.
 NOTE: "-"means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

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

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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)
А	802.11a	5150-5250 5470-5725	36 to 48 100 to 140	36	OFDM	BPSK	6.0
		5725-5850	149 to 165				

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 55%RH	DC 3.3V from PCB base support	Jelly
RE≥1G	25deg. C, 55%RH	DC 3.3V from PCB base support	Jelly
PLC	25deg. C, 58%RH	DC 3.3V from PCB base support	Summer
APCM	25deg. C, 58%RH	DC 3.3V from PCB base support	Vincent

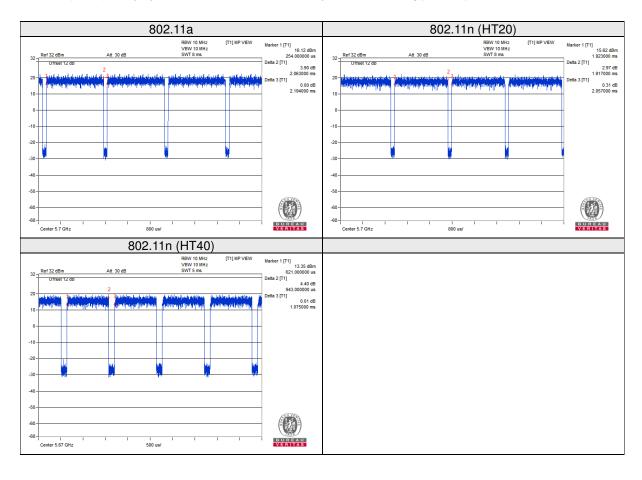


2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 2.063/2.194 = 0.940, Duty factor = 10 * log(1/0.940) = 0.269

802.11n (HT20): Duty cycle = 1.917/2.057 = 0.932, Duty factor = 10 * log(1/0.932) = 0.306

802.11n (HT40): Duty cycle = 0.943/1.075 = 0.877, Duty factor = $10 * \log(1/0.877) = 0.570$



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2.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	Inspiron 13-7378	GMSJZD2	N/A
2	PCB base support	N/A	N/A	N/A	N/A

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

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.

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3. TEST TYPES AND RESULTS

RADIATED EMISSION AND BANDEDGE MEASUREMENT 3.1

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:

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- 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.

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3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

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



3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 07, 23
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 09, 22
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 20, 22
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 13, 23
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	May 21, 22
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 21, 22
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	May 14, 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 12, 22
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Jan. 10, 23
Test Software	ADT	ADT_Radiated_V7 .6.15.9.2	N/A	N/A

NOTES:

- 1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
- 2. The horn antenna is used only for the measurement of emission frequency above1GHz if
- 3. The FCC Site Registration No. is 749762.

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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 ≥ 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.

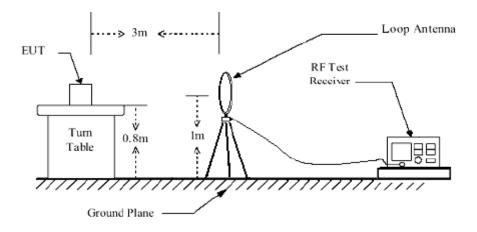
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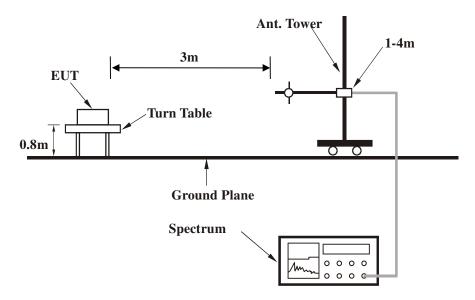


3.1.6 TEST SETUP

Below 30MHz



Below 1GHz test setup

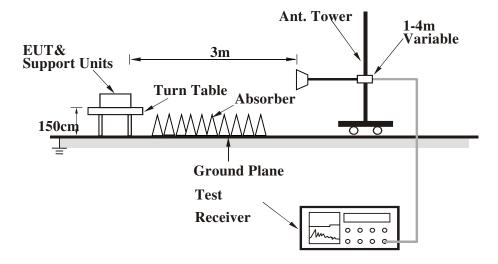


Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).

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Above 1GHz test setup



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

3.1.7 EUT OPERATING CONDITION

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

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3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

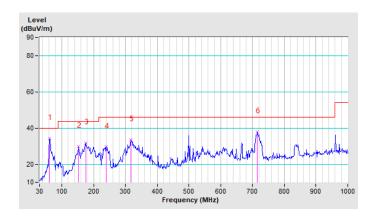
802.11a

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

	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	61.09	34.21 QP	40.00	-5.79	1.00 H	67	52.58	-18.37		
2	152.80	29.73 QP	43.50	-13.77	1.00 H	0	46.40	-16.67		
3	174.57	31.78 QP	43.50	-11.72	1.00 H	56	49.52	-17.74		
4	239.86	29.51 QP	46.00	-16.49	1.00 H	44	47.09	-17.58		
5	317.58	33.37 QP	46.00	-12.63	1.00 H	6	48.53	-15.16		
6	715.53	37.82 QP	46.00	-8.18	1.00 H	0	44.28	-6.46		

REMARKS:

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



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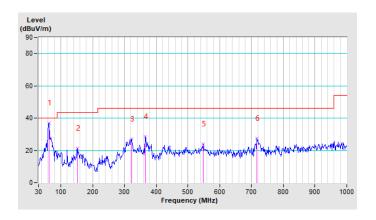


CHANNEL	TX Channel 36	DETECTOR	Ouggi Book (OD)
FREQUENCY RANGE	9KHz ~ 1GHz	FUNCTION	Quasi-Peak (QP)

	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	62.64	36.84 QP	40.00	-3.16	1.00 V	61	55.32	-18.48		
2	152.80	21.23 QP	43.50	-22.27	1.00 V	46	37.90	-16.67		
3	322.24	27.10 QP	46.00	-18.90	1.00 V	34	42.14	-15.04		
4	365.77	28.62 QP	46.00	-17.38	1.00 V	23	42.55	-13.93		
5	547.64	23.86 QP	46.00	-22.14	1.00 V	12	33.19	-9.33		
6	717.08	27.41 QP	46.00	-18.59	1.00 V	2	33.85	-6.44		

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



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Band 1 (5150-5250MHz): ABOVE 1GHz DATA 802.11a

CHANNEL	TX Channel 36	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	61.88 PK	74.00	-12.12	1.00 H	154	56.09	5.79	
2	5145.00	45.57 AV	54.00	-8.43	1.00 H	154	39.78	5.79	
3	5150.00	66.50 PK	74.00	-7.50	1.00 H	154	60.70	5.80	
4	5150.00	50.98 AV	54.00	-3.02	1.00 H	154	45.18	5.80	
5	*5180.00	105.58 PK			1.00 H	154	99.72	5.86	
6	*5180.00	95.44 AV			1.00 H	154	89.58	5.86	
7	#10360.00	51.00 PK	68.20	-17.20	1.54 H	166	37.60	13.40	
8	15540.00	54.96 PK	74.00	-19.04	1.23 H	155	36.09	18.87	
9	15540.00	43.20 AV	54.00	-10.80	1.23 H	155	24.33	18.87	
		ANTENN <i>A</i>	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	Peak (PK) Average (AV)	
1	5145.00	60.21 PK	74.00	-13.79	1.00 V	155	54.42	5.79	
2	5145.00	45.66 AV	54.00	-8.34	1.00 V	155	39.87	5.79	
3	5150.00	63.87 PK	74.00	-10.13	1.00 V	155	58.07	5.80	
4	5150.00	48.10 AV	54.00	-5.90	1.00 V	155	42.30	5.80	
5	*5180.00	103.73 PK			1.00 V	155	97.87	5.86	
6	*5180.00	94.22 AV			1.00 V	155	88.36	5.86	
7	#10360.00	51.44 PK	68.20	-16.76	1.21 V	173	38.04	13.40	
8	15540.00	53.86 PK	74.00	-20.14	1.10 V	148	34.99	18.87	
9	15540.00	42.89 AV	54.00	-11.11	1.10 V	148	24.02	18.87	

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.

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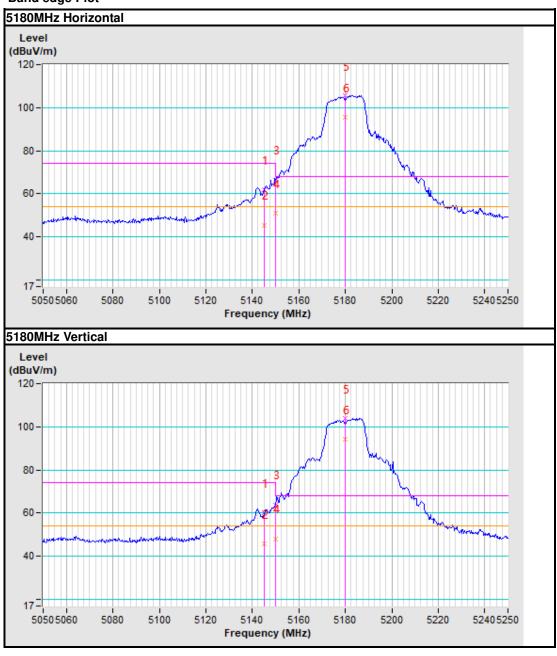
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Band edge Plot



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CHANNEL	TX Channel 40	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	50.33 PK	74.00	-23.67	1.00 H	177	44.54	5.79	
2	5145.00	38.02 AV	54.00	-15.98	1.00 H	177	32.23	5.79	
3	5150.00	53.01 PK	74.00	-20.99	1.00 H	177	47.21	5.80	
4	5150.00	39.21 AV	54.00	-14.79	1.00 H	177	33.41	5.80	
5	*5200.00	106.33 PK			1.00 H	177	100.44	5.89	
6	*5200.00	96.21 AV			1.00 H	177	90.32	5.89	
7	#10400.00	52.46 PK	68.20	-15.74	1.25 H	156	38.95	13.51	
8	15600.00	54.31 PK	74.00	-19.69	1.89 H	165	35.35	18.96	
9	15600.00	42.54 AV	54.00	-11.46	1.89 H	165	23.58	18.96	
	3	ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL	LIMIT (dBuV/m)	MARGIN	ANTENNA HEIGHT	TABLE ANGLE	RAW VALUE	CORRECTION FACTOR	
		(dBuV/m)	(ubuv/III)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)	
1	5145.00	(dBuV/m) 50.00 PK	74.00	-24.00	(m) 1.25 V	(Degree)	(dBuV) 44.21	(dB/m) 5.79	
1	5145.00 5145.00	,	,	` ,	` '	` ` ,	, ,	, ,	
Ė		50.00 PK	74.00	-24.00	1.25 V	147	44.21	5.79	
2	5145.00	50.00 PK 37.96 AV	74.00 54.00	-24.00 -16.04	1.25 V 1.25 V	147 147	44.21 32.17	5.79 5.79	
2	5145.00 5150.00	50.00 PK 37.96 AV 50.89 PK	74.00 54.00 74.00	-24.00 -16.04 -23.11	1.25 V 1.25 V 1.25 V	147 147 147	44.21 32.17 45.09	5.79 5.79 5.80	
3 4	5145.00 5150.00 5150.00	50.00 PK 37.96 AV 50.89 PK 39.10 AV	74.00 54.00 74.00	-24.00 -16.04 -23.11	1.25 V 1.25 V 1.25 V 1.25 V	147 147 147 147	44.21 32.17 45.09 33.30	5.79 5.79 5.80 5.80	
2 3 4 5	5145.00 5150.00 5150.00 *5200.00	50.00 PK 37.96 AV 50.89 PK 39.10 AV 104.91 PK	74.00 54.00 74.00	-24.00 -16.04 -23.11	1.25 V 1.25 V 1.25 V 1.25 V 1.25 V	147 147 147 147 147	44.21 32.17 45.09 33.30 99.02	5.79 5.79 5.80 5.80 5.89	
2 3 4 5 6	5145.00 5150.00 5150.00 *5200.00 *5200.00	50.00 PK 37.96 AV 50.89 PK 39.10 AV 104.91 PK 94.67 AV	74.00 54.00 74.00 54.00	-24.00 -16.04 -23.11 -14.90	1.25 V 1.25 V 1.25 V 1.25 V 1.25 V 1.25 V	147 147 147 147 147 147	44.21 32.17 45.09 33.30 99.02 88.78	5.79 5.79 5.80 5.80 5.89 5.89	

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

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	45.21 PK	74.00	-28.79	1.44 H	126	39.42	5.79
2	5145.00	35.00 AV	54.00	-19.00	1.44 H	126	29.21	5.79
3	5150.00	46.77 PK	74.00	-27.23	1.44 H	126	40.97	5.80
4	5150.00	35.54 AV	54.00	-18.46	1.44 H	126	29.74	5.80
5	*5240.00	104.93 PK			1.44 H	126	98.96	5.97
6	*5240.00	94.66 AV			1.44 H	126	88.69	5.97
7	5350.00	53.21 PK	74.00	-20.79	1.44 H	126	47.04	6.17
8	5350.00	36.58 AV	54.00	-17.42	1.44 H	126	30.41	6.17
9	5355.00	51.65 PK	74.00	-22.35	1.44 H	126	45.47	6.18
10	5355.00	35.21 AV	54.00	-18.79	1.44 H	126	29.03	6.18
11	#10480.00	51.20 PK	68.20	-17.00	1.00 H	168	37.45	13.75
12	15720.00	53.96 PK	74.00	-20.04	1.36 H	46	34.81	19.15
13	15720.00	43.02 AV	54.00	-10.98	1.36 H	46	23.87	19.15
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	46.51 PK	74.00	-27.49	1.00 V	156	40.72	5.79
2	5145.00	35.44 AV	54.00	-18.56	1.00 V	156	29.65	5.79
3	5150.00	46.95 PK	74.00	-27.05	1.00 V	156	41.15	5.80
4	5150.00	36.65 AV	54.00	-17.35	1.00 V	156	30.85	5.80
5	*5240.00	105.21 PK			1.00 V	156	99.24	5.97
6	*5240.00	95.69 AV			1.00 V	156	89.72	5.97
7	5350.00	52.45 PK	74.00	-21.55	1.00 V	156	46.28	6.17
8	5350.00	36.98 AV	54.00	-17.02	1.00 V	156	30.81	6.17
9	5355.00	50.24 PK	74.00	-23.76	1.00 V	156	44.06	6.18
10	5355.00	35.98 AV	54.00	-18.02	1.00 V	156	29.80	6.18
11	#10480.00	51.05 PK	68.20	-17.15	1.54 V	89	37.30	13.75
12	15720.00	53.64 PK	74.00	-20.36	1.54 V	169	34.49	19.15
13	15720.00	42.68 AV	54.00	-11.32	1.54 V	169	23.53	19.15

REMARKS:

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

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802.11n (20MHz)

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

		ANTENNA F	POLARITY 8	k TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	67.37 PK	74.00	-6.63	1.00 H	148	61.58	5.79
2	5145.00	48.25 AV	54.00	-5.75	1.00 H	148	42.46	5.79
3	5150.00	68.64 PK	74.00	-5.36	1.00 H	148	62.84	5.80
4	5150.00	50.50 AV	54.00	-3.50	1.00 H	148	44.70	5.80
5	*5180.00	104.77 PK			1.00 H	148	98.91	5.86
6	*5180.00	95.14 AV			1.00 H	148	89.28	5.86
7	#10360.00	51.25 PK	68.20	-16.95	1.00 H	186	37.85	13.40
8	15540.00	52.96 PK	74.00	-21.04	1.15 H	214	34.09	18.87
9	15540.00	41.86 AV	54.00	-12.14	1.15 H	214	22.99	18.87
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	65.40 PK	74.00	-8.60	1.00 V	38	59.61	5.79
2	5145.00	45.65 AV	54.00	-8.35	1.00 V	38	39.86	5.79
3	5150.00	66.85 PK	74.00	-7.15	1.00 V	38	61.05	5.80
4	5150.00	48.52 AV	54.00	-5.48	1.00 V	38	42.72	5.80
5	*5180.00	103.74 PK			1.00 V	38	97.88	5.86
6	*5180.00	93.68 AV			1.00 V	38	87.82	5.86
7	#10360.00	51.56 PK	68.20	-16.64	1.00 V	136	38.16	13.40
8	15540.00	53.12 PK	74.00	-20.88	1.21 V	145	34.25	18.87
9	15540.00	42.10 AV	54.00	-11.90	1.21 V	145	23.23	18.87

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.

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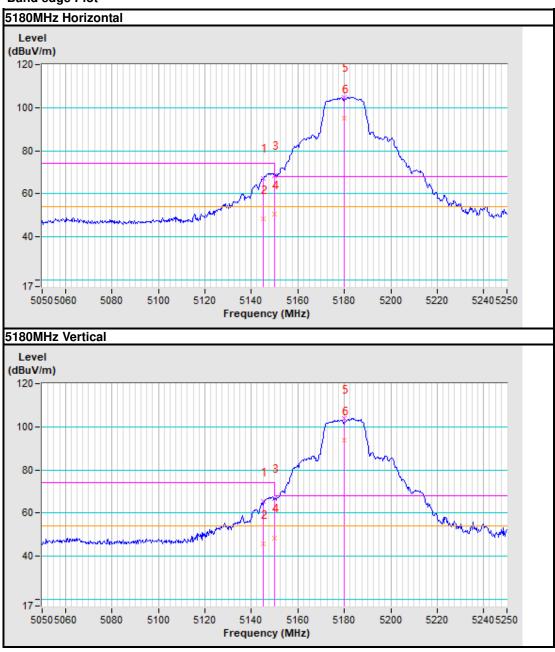
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CHANNEL	TX Channel 40	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	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	50.26 PK	74.00	-23.74	1.29 H	189	44.47	5.79	
2	5145.00	38.54 AV	54.00	-15.46	1.29 H	189	32.75	5.79	
3	5150.00	51.54 PK	74.00	-22.46	1.29 H	189	45.74	5.80	
4	5150.00	39.51 AV	54.00	-14.49	1.29 H	189	33.71	5.80	
5	*5200.00	105.00 PK			1.29 H	189	99.11	5.89	
6	*5200.00	95.64 AV			1.29 H	189	89.75	5.89	
7	#10400.00	52.36 PK	68.20	-15.84	1.00 H	154	38.85	13.51	
8	15600.00	53.62 PK	74.00	-20.38	1.00 H	159	34.66	18.96	
9	15600.00	42.36 AV	54.00	-11.64	1.00 H	159	23.40	18.96	
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (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	10.05.516	= 4 00						
	0	48.95 PK	74.00	-25.05	1.00 V	125	43.16	5.79	
2	5145.00	48.95 PK 36.54 AV	74.00 54.00	-25.05 -17.46	1.00 V 1.00 V	125 125	43.16 30.75	5.79 5.79	
2									
	5145.00	36.54 AV	54.00	-17.46	1.00 V	125	30.75	5.79	
3	5145.00 5150.00	36.54 AV 50.67 PK	54.00 74.00	-17.46 -23.33	1.00 V 1.00 V	125 125	30.75 44.87	5.79 5.80	
3	5145.00 5150.00 5150.00	36.54 AV 50.67 PK 39.11 AV	54.00 74.00	-17.46 -23.33	1.00 V 1.00 V 1.00 V	125 125 125	30.75 44.87 33.31	5.79 5.80 5.80	
3 4 5	5145.00 5150.00 5150.00 *5200.00	36.54 AV 50.67 PK 39.11 AV 104.06 PK	54.00 74.00	-17.46 -23.33	1.00 V 1.00 V 1.00 V 1.00 V	125 125 125 125	30.75 44.87 33.31 98.17	5.79 5.80 5.80 5.89	
3 4 5 6	5145.00 5150.00 5150.00 *5200.00 *5200.00	36.54 AV 50.67 PK 39.11 AV 104.06 PK 94.68 AV	54.00 74.00 54.00	-17.46 -23.33 -14.89	1.00 V 1.00 V 1.00 V 1.00 V 1.00 V	125 125 125 125 125	30.75 44.87 33.31 98.17 88.79	5.79 5.80 5.80 5.89 5.89	

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.

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

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	49.65 PK	74.00	-24.35	1.45 H	126	43.86	5.79
2	5145.00	38.54 AV	54.00	-15.46	1.45 H	126	32.75	5.79
3	5150.00	52.11 PK	74.00	-21.89	1.45 H	126	46.31	5.80
4	5150.00	41.36 AV	54.00	-12.64	1.45 H	126	35.56	5.80
5	*5240.00	105.02 PK			1.45 H	126	99.05	5.97
6	*5240.00	95.36 AV			1.45 H	126	89.39	5.97
7	5350.00	53.11 PK	74.00	-20.89	1.45 H	126	46.94	6.17
8	5350.00	42.68 AV	54.00	-11.32	1.45 H	126	36.51	6.17
9	5355.00	52.67 PK	74.00	-21.33	1.45 H	126	46.49	6.18
10	5355.00	42.10 AV	54.00	-11.90	1.45 H	126	35.92	6.18
11	#10480.00	52.48 PK	68.20	-15.72	1.00 H	176	38.73	13.75
12	15720.00	54.36 PK	74.00	-19.64	1.00 H	136	35.21	19.15
13	15720.00	42.61 AV	54.00	-11.39	1.00 H	136	23.46	19.15
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	50.09 PK	74.00	-23.91	1.20 V	225	44.30	5.79
2	5145.00	39.00 AV	54.00	-15.00	1.20 V	225	33.21	5.79
3	5150.00	51.32 PK	74.00	-22.68	1.20 V	225	45.52	5.80
4	5150.00	41.65 AV	54.00	-12.35	1.20 V	225	35.85	5.80
5	*5240.00	104.05 PK			1.20 V	225	98.08	5.97
6	*5240.00	94.36 AV			1.20 V	225	88.39	5.97
7	5350.00	53.42 PK	74.00	-20.58	1.20 V	225	47.25	6.17
8	5350.00	42.00 AV	54.00	-12.00	1.20 V	225	35.83	6.17
9	5355.00	52.69 PK	74.00	-21.31	1.20 V	225	46.51	6.18
10	5355.00	42.21 AV	54.00	-11.79	1.20 V	225	36.03	6.18
11	#10480.00	52.75 PK	68.20	-15.45	1.00 V	159	39.00	13.75
12	15720.00	54.31 PK	74.00	-19.69	1.00 V	156	35.16	19.15
13	15720.00	42.69 AV	54.00	-11.31	1.00 V	156	23.54	19.15

REMARKS:

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

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802.11n (40MHz)

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

		ANTENNA F	POLARITY 8	k TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	62.86 PK	74.00	-11.14	1.67 H	80	57.07	5.79
2	5145.00	45.96 AV	54.00	-8.04	1.67 H	80	40.17	5.79
3	5150.00	68.00 PK	74.00	-6.00	1.67 H	80	62.20	5.80
4	5150.00	49.75 AV	54.00	-4.25	1.67 H	80	43.95	5.80
5	*5190.00	100.00 PK			1.67 H	80	94.12	5.88
6	*5190.00	90.76 AV			1.67 H	80	84.88	5.88
7	#10380.00	51.57 PK	68.20	-16.63	1.54 H	122	38.11	13.46
8	15570.00	53.61 PK	74.00	-20.39	1.24 H	156	34.69	18.92
9	15570.00	42.11 AV	54.00	-11.89	1.24 H	156	23.19	18.92
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	61.91 PK	74.00	-12.09	1.00 V	125	56.12	5.79
2	5145.00	39.69 AV	54.00	-14.31	1.00 V	125	33.90	5.79
3	5150.00	64.23 PK	74.00	-9.77	1.00 V	125	58.43	5.80
4	5150.00	41.36 AV	54.00	-12.64	1.00 V	125	35.56	5.80
5	*5190.00	98.50 PK			1.00 V	125	92.62	5.88
6	*5190.00	88.98 AV			1.00 V	125	83.10	5.88
7	#10380.00	51.36 PK	68.20	-16.84	1.44 V	125	37.90	13.46
8	15570.00	53.75 PK	74.00	-20.25	1.02 V	156	34.83	18.92
9	15570.00	42.66 AV	54.00	-11.34	1.02 V	156	23.74	18.92

REMARKS:

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

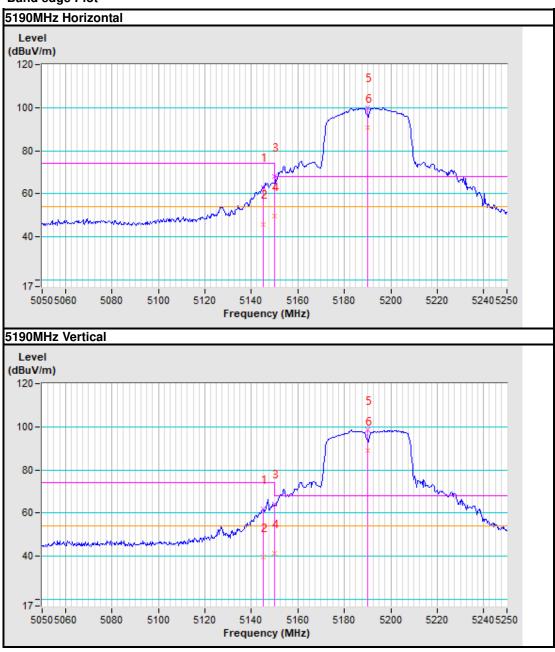
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Bureau Veritas Shenzhen Co., Ltd. **Dongguan Branch**



Band edge Plot



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CHANNEL	TX Channel 46	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	49.32 PK	74.00	-24.68	1.45 H	177	43.53	5.79	
2	5145.00	39.55 AV	54.00	-14.45	1.45 H	177	33.76	5.79	
3	5150.00	53.15 PK	74.00	-20.85	1.45 H	177	47.35	5.80	
4	5150.00	42.36 AV	54.00	-11.64	1.45 H	177	36.56	5.80	
5	*5230.00	103.11 PK			1.45 H	177	97.16	5.95	
6	*5230.00	92.68 AV			1.45 H	177	86.73	5.95	
7	#10460.00	51.02 PK	68.20	-17.18	1.00 H	156	37.34	13.68	
8	15690.00	54.33 PK	74.00	-19.67	1.25 H	125	35.23	19.10	
9	15690.00	42.65 AV	54.00	-11.35	1.25 H	125	23.55	19.10	
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	5145.00	49.56 PK	74.00	-24.44	1.45 V	177	43.77	5.79	
2	5145.00	40.25 AV	54.00	-13.75	1.45 V	177	34.46	5.79	
3	5150.00	52.66 PK	74.00	-21.34	1.45 V	177	46.86	5.80	
4	5150.00	42.56 AV	54.00	-11.44	1.45 V	177	36.76	5.80	
5	*5230.00	99.56 PK			1.45 V	177	93.61	5.95	
6	*5230.00	89.66 AV			1.45 V	177	83.71	5.95	
7	#10460.00	51.23 PK	68.20	-16.97	1.00 V	156	37.55	13.68	
8	15690.00	54.36 PK	74.00	-19.64	1.25 V	125	35.26	19.10	
9	15690.00	42.73 AV	54.00	-11.27	1.25 V	125	23.63	19.10	

REMARKS:

- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were 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 2 (5250-5350MHz): ABOVE 1GHz DATA 802.11a

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

	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	5145.00	53.24 PK	74.00	-20.76	1.00 H	230	47.45	5.79	
2	5145.00	41.52 AV	54.00	-12.48	1.00 H	230	35.73	5.79	
3	5150.00	55.43 PK	74.00	-18.57	1.00 H	230	49.63	5.80	
4	5150.00	42.15 AV	54.00	-11.85	1.00 H	230	36.35	5.80	
5	*5260.00	104.56 PK			1.00 H	230	98.56	6.00	
6	*5260.00	95.21 AV			1.00 H	230	89.21	6.00	
7	5350.00	55.32 PK	74.00	-18.68	1.00 H	230	49.15	6.17	
8	5350.00	42.36 AV	54.00	-11.64	1.00 H	230	36.19	6.17	
9	5355.00	54.15 PK	74.00	-19.85	1.00 H	230	47.97	6.18	
10	5355.00	42.25 AV	54.00	-11.75	1.00 H	230	36.07	6.18	
11	#10520.00	53.00 PK	68.20	-15.20	1.27 H	139	39.18	13.82	
12	15780.00	54.89 PK	74.00	-19.11	1.47 H	135	35.66	19.23	
13	15780.00	42.56 AV	54.00	-11.44	1.47 H	135	23.33	19.23	
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
NO.		LEVEL			HEIGHT	ANGLE	VALUE	FACTOR	
	(MHz)	LEVEL (dBuV/m)	(dBuV/m)	(dB)	HEIGHT (m)	ANGLE (Degree)	VALUE (dBuV)	FACTOR (dB/m)	
1	(MHz) 5145.00	LEVEL (dBuV/m) 53.69 PK	(dBuV/m) 74.00	(dB)	HEIGHT (m) 1.00 V	ANGLE (Degree)	VALUE (dBuV) 47.90	FACTOR (dB/m) 5.79	
1 2	(MHz) 5145.00 5145.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV	(dBuV/m) 74.00 54.00	(dB) -20.31 -12.01	HEIGHT (m) 1.00 V 1.00 V	ANGLE (Degree) 39 39	VALUE (dBuV) 47.90 36.20	FACTOR (dB/m) 5.79 5.79	
1 2 3	(MHz) 5145.00 5145.00 5150.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK	(dBuV/m) 74.00 54.00 74.00	(dB) -20.31 -12.01 -17.64	HEIGHT (m) 1.00 V 1.00 V 1.00 V	ANGLE (Degree) 39 39 39	VALUE (dBuV) 47.90 36.20 50.56	FACTOR (dB/m) 5.79 5.79 5.80	
1 2 3 4	(MHz) 5145.00 5145.00 5150.00 5150.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV	(dBuV/m) 74.00 54.00 74.00	(dB) -20.31 -12.01 -17.64	HEIGHT (m) 1.00 V 1.00 V 1.00 V 1.00 V	39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56	FACTOR (dB/m) 5.79 5.79 5.80 5.80	
1 2 3 4 5	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK	(dBuV/m) 74.00 54.00 74.00	(dB) -20.31 -12.01 -17.64	HEIGHT (m) 1.00 V 1.00 V 1.00 V 1.00 V 1.00 V	ANGLE (Degree) 39 39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00	
1 2 3 4 5 6	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK 94.66 AV	74.00 54.00 74.00 54.00	-20.31 -12.01 -17.64 -11.64	HEIGHT (m) 1.00 V 1.00 V 1.00 V 1.00 V 1.00 V 1.00 V	39 39 39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95 88.66	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00 6.00	
1 2 3 4 5 6	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00 *5260.00 5350.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK 94.66 AV 56.78 PK	74.00 54.00 74.00 54.00 74.00	-20.31 -12.01 -17.64 -11.64	HEIGHT (m) 1.00 V	39 39 39 39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95 88.66 50.61	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00 6.00 6.17	
1 2 3 4 5 6 7 8	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00 *5260.00 5350.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK 94.66 AV 56.78 PK 43.65 AV	74.00 54.00 74.00 54.00 74.00 54.00	-20.31 -12.01 -17.64 -11.64 -17.22 -10.35	HEIGHT (m) 1.00 V	39 39 39 39 39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95 88.66 50.61 37.48	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00 6.00 6.17 6.17	
1 2 3 4 5 6 7 8	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00 *5260.00 5350.00 5355.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK 94.66 AV 56.78 PK 43.65 AV 54.69 PK	74.00 54.00 74.00 54.00 74.00 74.00 54.00 74.00	-20.31 -12.01 -17.64 -11.64 -17.22 -10.35 -19.31	HEIGHT (m) 1.00 V	39 39 39 39 39 39 39 39 39 39	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95 88.66 50.61 37.48 48.51	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00 6.00 6.17 6.17 6.18	
1 2 3 4 5 6 7 8 9	(MHz) 5145.00 5145.00 5150.00 5150.00 *5260.00 *5260.00 5350.00 5355.00 5355.00	LEVEL (dBuV/m) 53.69 PK 41.99 AV 56.36 PK 42.36 AV 103.95 PK 94.66 AV 56.78 PK 43.65 AV 54.69 PK 42.36 AV	74.00 54.00 74.00 54.00 74.00 54.00 74.00 54.00 54.00	-20.31 -12.01 -17.64 -11.64 -17.22 -10.35 -19.31 -11.64	HEIGHT (m) 1.00 V 1.00 V	39 39 39 39 39 39 39 39 39 39 39 39 39 3	VALUE (dBuV) 47.90 36.20 50.56 36.56 97.95 88.66 50.61 37.48 48.51 36.18	FACTOR (dB/m) 5.79 5.79 5.80 5.80 6.00 6.17 6.17 6.18 6.18	

REMARKS:

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

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CHANNEL	TX Channel 60	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	104.56 PK			1.93 H	115	98.48	6.08	
2	*5300.00	95.11 AV			1.93 H	115	89.03	6.08	
3	5350.00	54.21 PK	74.00	-19.79	1.93 H	115	48.04	6.17	
4	5350.00	43.68 AV	54.00	-10.32	1.93 H	115	37.51	6.17	
5	5355.00	53.60 PK	74.00	-20.40	1.93 H	115	47.42	6.18	
6	5355.00	42.36 AV	54.00	-11.64	1.93 H	115	36.18	6.18	
7	10600.00	53.11 PK	74.00	-20.89	1.00 H	157	39.20	13.91	
8	10600.00	42.15 AV	54.00	-11.85	1.00 H	157	28.24	13.91	
9	15900.00	54.86 PK	74.00	-19.14	1.00 H	147	35.44	19.42	
10	15900.00	45.21 AV	54.00	-8.79	1.00 H	147	25.79	19.42	
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (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	103.22 PK			1.14 V	180	97.14	6.08	
2	*5300.00	94.67 AV			1.14 V	180	88.59	6.08	
3	5350.00	53.89 PK	74.00	-20.11	1.14 V	180	47.72	6.17	
4	5350.00	42.63 AV	54.00	-11.37	1.14 V	180	36.46	6.17	
5	5355.00	53.17 PK	74.00	-20.83	1.14 V	180	46.99	6.18	
6	5355.00	42.88 AV	54.00	-11.12	1.14 V	180	36.70	6.18	
7	10600.00	52.96 PK	74.00	-21.04	1.26 V	136	39.05	13.91	
8	10600.00	41.62 AV	54.00	-12.38	1.26 V	136	27.71	13.91	
9	15900.00	54.97 PK	74.00	-19.03	1.00 V	147	35.55	19.42	
10	15900.00	45.15 AV	54.00	-8.85	1.00 V	147	25.73	19.42	

REMARKS:

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

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



CHANNEL	TX Channel 64	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	104.68 PK			1.00 H	156	98.57	6.11	
2	*5320.00	95.61 AV			1.00 H	156	89.50	6.11	
3	5350.00	64.56 PK	74.00	-9.44	1.00 H	156	58.39	6.17	
4	5350.00	47.85 AV	54.00	-6.15	1.00 H	156	41.68	6.17	
5	5355.00	58.79 PK	74.00	-15.21	1.00 H	156	52.61	6.18	
6	5355.00	46.21 AV	54.00	-7.79	1.00 H	156	40.03	6.18	
7	10640.00	51.69 PK	74.00	-22.31	1.00 H	125	37.74	13.95	
8	10640.00	41.00 AV	54.00	-13.00	1.00 H	125	27.05	13.95	
9	15960.00	54.89 PK	74.00	-19.11	1.22 H	158	35.38	19.51	
10	15960.00	45.36 AV	54.00	-8.64	1.22 H	158	25.85	19.51	
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5320.00	103.40 PK			1.25 V	110	97.29	6.11	
2	*5320.00	94.56 AV			1.25 V	110	88.45	6.11	
3	5350.00	62.52 PK	74.00	-11.48	1.25 V	110	56.35	6.17	
4	5350.00	47.36 AV	54.00	-6.64	1.25 V	110	41.19	6.17	
5	5355.00	59.11 PK	74.00	-14.89	1.25 V	110	52.93	6.18	
6	5355.00	45.69 AV	54.00	-8.31	1.25 V	110	39.51	6.18	
7	10640.00	52.05 PK	74.00	-21.95	1.00 V	158	38.10	13.95	
8	10640.00	42.31 AV	54.00	-11.69	1.00 V	158	28.36	13.95	
9	15960.00	54.67 PK	74.00	-19.33	1.52 V	120	35.16	19.51	
10	15960.00	45.74 AV	54.00	-8.26	1.52 V	120	26.23	19.51	

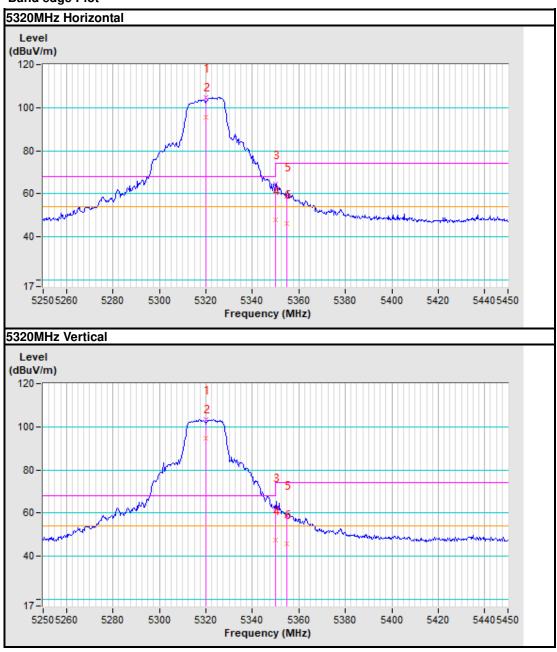
REMARKS:

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

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802.11n (20MHz)

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

		ANTENNA F	POLARITY 8	R TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	53.44 PK	74.00	-20.56	1.00 H	78	47.65	5.79
2	5145.00	42.00 AV	54.00	-12.00	1.00 H	78	36.21	5.79
3	5150.00	53.12 PK	74.00	-20.88	1.00 H	78	47.32	5.80
4	5150.00	42.36 AV	54.00	-11.64	1.00 H	78	36.56	5.80
5	*5260.00	104.85 PK			1.00 H	78	98.85	6.00
6	*5260.00	94.68 AV			1.00 H	78	88.68	6.00
7	5350.00	54.88 PK	74.00	-19.12	1.00 H	78	48.71	6.17
8	5350.00	43.65 AV	54.00	-10.35	1.00 H	78	37.48	6.17
9	5355.00	53.64 PK	74.00	-20.36	1.00 H	78	47.46	6.18
10	5355.00	42.69 AV	54.00	-11.31	1.00 H	78	36.51	6.18
11	#10520.00	53.16 PK	68.20	-15.04	1.00 H	163	39.34	13.82
12	15780.00	54.36 PK	74.00	-19.64	1.00 H	154	35.13	19.23
13	15780.00	43.25 AV	54.00	-10.75	1.00 H	154	24.02	19.23
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	53.11 PK	74.00	-20.89	1.00 V	55	47.32	5.79
2	5145.00	42.20 AV	54.00	-11.80	1.00 V	55	36.41	5.79
3	5150.00	54.36 PK	74.00	-19.64	1.00 V	55	48.56	5.80
4	5150.00	43.15 AV	54.00	-10.85	1.00 V	55	37.35	5.80
5	*5260.00	103.95 PK			1.00 V	55	97.95	6.00
6	*5260.00	94.10 AV			1.00 V	55	88.10	6.00
7	5350.00	54.42 PK	74.00	-19.58	1.00 V	55	48.25	6.17
8	5350.00	42.36 AV	54.00	-11.64	1.00 V	55	36.19	6.17
9	5355.00	53.67 PK	74.00	-20.33	1.00 V	55	47.49	6.18
10	5355.00	42.22 AV	54.00	-11.78	1.00 V	55	36.04	6.18
11	#10520.00	54.11 PK	68.20	-14.09	1.44 V	129	40.29	13.82
12	15780.00	54.33 PK	74.00	-19.67	1.33 V	128	35.10	19.23
13	15780.00	45.64 AV	54.00	-8.36	1.33 V	128	26.41	19.23

REMARKS:

- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were 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 60	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.25 PK			1.00 H	178	98.17	6.08
2	*5300.00	95.62 AV			1.00 H	178	89.54	6.08
3	5350.00	54.25 PK	74.00	-19.75	1.00 H	178	48.08	6.17
4	5350.00	42.00 AV	54.00	-12.00	1.00 H	178	35.83	6.17
5	5355.00	53.00 PK	74.00	-21.00	1.00 H	178	46.82	6.18
6	5355.00	41.98 AV	54.00	-12.02	1.00 H	178	35.80	6.18
7	10600.00	53.11 PK	74.00	-20.89	1.33 H	126	39.20	13.91
8	10600.00	42.36 AV	54.00	-11.64	1.33 H	126	28.45	13.91
9	15900.00	54.88 PK	74.00	-19.12	1.00 H	136	35.46	19.42
10	15900.00	42.35 AV	54.00	-11.65	1.00 H	136	22.93	19.42
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.56 PK			1.00 V	64	98.48	6.08
2	*5300.00	95.00 AV			1.00 V	64	88.92	6.08
3	5350.00	54.25 PK	74.00	-19.75	1.00 V	64	48.08	6.17
4	5350.00	43.11 AV	54.00	-10.89	1.00 V	64	36.94	6.17
5	5355.00	52.69 PK	74.00	-21.31	1.00 V	64	46.51	6.18
6	5355.00	41.96 AV	54.00	-12.04	1.00 V	64	35.78	6.18
7	10600.00	53.64 PK	74.00	-20.36	1.44 V	158	39.73	13.91
8	10600.00	42.58 AV	54.00	-11.42	1.44 V	158	28.67	13.91
9	15900.00	54.36 PK	74.00	-19.64	1.00 V	54	34.94	19.42
10	15900.00	43.65 AV	54.00	-10.35	1.00 V	54	24.23	19.42

REMARKS:

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



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

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	104.89 PK			1.00 H	80	98.78	6.11
2	*5320.00	95.65 AV			1.00 H	80	89.54	6.11
3	5350.00	65.41 PK	74.00	-8.59	1.00 H	80	59.24	6.17
4	5350.00	48.52 AV	54.00	-5.48	1.00 H	80	42.35	6.17
5	5355.00	61.15 PK	74.00	-12.85	1.00 H	80	54.97	6.18
6	5355.00	46.22 AV	54.00	-7.78	1.00 H	80	40.04	6.18
7	10640.00	52.96 PK	74.00	-21.04	1.00 H	183	39.01	13.95
8	10640.00	42.34 AV	54.00	-11.66	1.00 H	183	28.39	13.95
9	15960.00	54.55 PK	74.00	-19.45	1.00 H	152	35.04	19.51
10	15960.00	43.98 AV	54.00	-10.02	1.00 H	152	24.47	19.51
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.90 PK			1.00 V	42	97.79	6.11
2	*5320.00	94.51 AV			1.00 V	42	88.40	6.11
3	5350.00	65.07 PK	74.00	-8.93	1.00 V	42	58.90	6.17
4	5350.00	47.54 AV	54.00	-6.46	1.00 V	42	41.37	6.17
5	5355.00	61.41 PK	74.00	-12.59	1.00 V	42	55.23	6.18
6	5355.00	45.20 AV	54.00	-8.80	1.00 V	42	39.02	6.18
7	10640.00	53.11 PK	74.00	-20.89	1.00 V	145	39.16	13.95
8	10640.00	41.65 AV	54.00	-12.35	1.00 V	145	27.70	13.95
9	15960.00	54.33 PK	74.00	-19.67	1.25 V	148	34.82	19.51
10	15960.00	44.12 AV	54.00	-9.88	1.25 V	148	24.61	19.51

REMARKS:

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Dongguan Branch

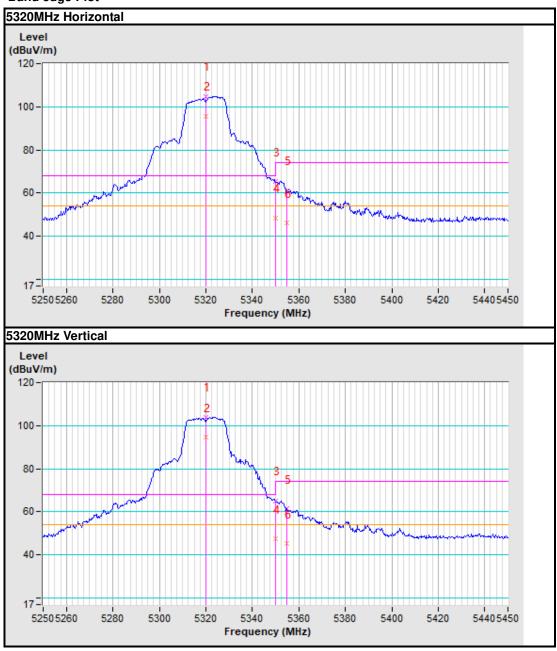
- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were greater than 20dB margin.
- 4. Margin value = Emission level Limit value.
- 5. " * ": Fundamental frequency.

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802.11n (40MHz)

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

	,	ANTENNA F	POLARITY 8	k TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	103.15 PK			1.00 H	120	97.13	6.02
2	*5270.00	92.54 AV			1.00 H	120	86.52	6.02
3	5350.00	54.65 PK	74.00	-19.35	1.00 H	120	48.48	6.17
4	5350.00	42.65 AV	54.00	-11.35	1.00 H	120	36.48	6.17
5	5355.00	54.15 PK	74.00	-19.85	1.00 H	120	47.97	6.18
6	5355.00	41.69 AV	54.00	-12.31	1.00 H	120	35.51	6.18
7	#10540.00	54.12 PK	68.20	-14.08	1.56 H	125	40.28	13.84
8	15810.00	54.65 PK	74.00	-19.35	1.54 H	144	35.37	19.28
9	15810.00	45.12 AV	54.00	-8.88	1.54 H	144	25.84	19.28
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	100.02 PK			1.00 V	244	94.00	6.02
2	*5270.00	90.36 AV			1.00 V	244	84.34	6.02
3	5350.00	53.46 PK	74.00	-20.54	1.00 V	244	47.29	6.17
4	5350.00	41.43 AV	54.00	-12.57	1.00 V	244	35.26	6.17
5	5355.00	54.10 PK	74.00	-19.90	1.00 V	244	47.92	6.18
6	5355.00	41.89 AV	54.00	-12.11	1.00 V	244	35.71	6.18
				-13.62	1.10 V	128	40.74	13.84
7	#10540.00	54.58 PK	68.20	-13.02	1.10 V	120	TU.7 T	10.04
7 8	#10540.00 15810.00	54.58 PK 55.32 PK	74.00	-13.62	1.32 V	122	36.04	19.28

REMARKS:

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Dongguan Branch

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

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

		ANTENNA F	POLARITY 8	k TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	99.30 PK			1.14 H	130	93.21	6.09
2	*5310.00	89.25 AV			1.14 H	130	83.16	6.09
3	5350.00	70.85 PK	74.00	-3.15	1.14 H	130	64.68	6.17
4	5350.00	50.00 AV	54.00	-4.00	1.14 H	130	43.83	6.17
5	5355.00	63.90 PK	74.00	-10.10	1.14 H	130	57.72	6.18
6	5355.00	46.26 AV	54.00	-7.74	1.14 H	130	40.08	6.18
7	10620.00	53.11 PK	74.00	-20.89	1.17 H	154	39.18	13.93
8	10620.00	42.15 AV	54.00	-11.85	1.17 H	154	28.22	13.93
9	15930.00	54.89 PK	74.00	-19.11	1.00 H	148	35.43	19.46
10	15930.00	45.34 AV	54.00	-8.66	1.00 H	148	25.88	19.46
		ANTENN <i>A</i>	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (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	97.42 PK			1.00 V	34	91.33	6.09
2	*5310.00	87.56 AV			1.00 V	34	81.47	6.09
3	5350.00	67.04 PK	74.00	-6.96	1.00 V	34	60.87	6.17
4	5350.00	45.62 AV	54.00	-8.38	1.00 V	34	39.45	6.17
5	5355.00	61.00 PK	74.00	-13.00	1.00 V	34	54.82	6.18
6	5355.00	44.58 AV	54.00	-9.42	1.00 V	34	38.40	6.18
	3333.00	77.50 AV	000					
7	10620.00	53.15 PK	74.00	-20.85	1.00 V	147	39.22	13.93
7			•	-20.85 -11.85	1.00 V 1.00 V	147 147	39.22 28.22	13.93 13.93
-	10620.00	53.15 PK	74.00					

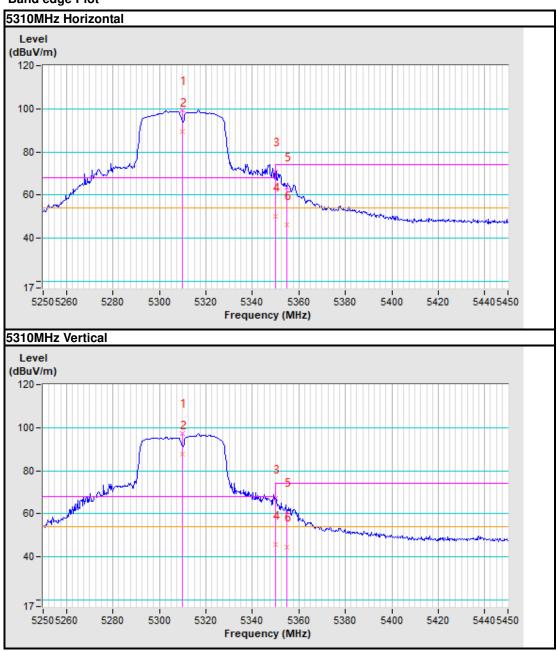
REMARKS:

- 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.

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

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

		ANTENNA F	POLARITY 8	k TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.00	64.04 PK	68.20	-4.16	1.00 H	43	57.66	6.38
2	#5470.00	64.56 PK	68.20	-3.64	1.00 H	43	58.18	6.38
3	*5500.00	104.24 PK			1.00 H	43	97.80	6.44
4	*5500.00	94.51 AV			1.00 H	43	88.07	6.44
5	11000.00	52.34 PK	74.00	-21.66	1.57 H	154	37.98	14.36
6	11000.00	41.57 AV	54.00	-12.43	1.57 H	154	27.21	14.36
7	#16500.00	54.26 PK	68.20	-13.94	1.00 H	157	34.15	20.11
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
NO .		LEVEL			HEIGHT	ANGLE	VALUE	FACTOR
	(MHz)	LEVEL (dBuV/m)	(dBuV/m)	(dB)	HEIGHT (m)	ANGLE (Degree)	VALUE (dBuV)	FACTOR (dB/m)
1	(MHz) #5465.00	LEVEL (dBuV/m) 63.64 PK	(dBuV/m) 68.20	(dB)	HEIGHT (m)	ANGLE (Degree)	VALUE (dBuV) 57.26	FACTOR (dB/m) 6.38
1 2	(MHz) #5465.00 # 5470.00	LEVEL (dBuV/m) 63.64 PK 64.95 PK	(dBuV/m) 68.20	(dB)	HEIGHT (m) 1.00 V 1.00 V	ANGLE (Degree) 300 300	VALUE (dBuV) 57.26 58.57	FACTOR (dB/m) 6.38 6.38
1 2	(MHz) #5465.00 #5470.00 *5500.00	LEVEL (dBuV/m) 63.64 PK 64.95 PK 102.90 PK	(dBuV/m) 68.20	(dB)	HEIGHT (m) 1.00 V 1.00 V 1.00 V	ANGLE (Degree) 300 300 300	VALUE (dBuV) 57.26 58.57 96.46	FACTOR (dB/m) 6.38 6.38 6.44
1 2 3 4	(MHz) #5465.00 #5470.00 *5500.00	LEVEL (dBuV/m) 63.64 PK 64.95 PK 102.90 PK 92.58 AV	(dBuV/m) 68.20 68.20	(dB) -4.56 -3.25	HEIGHT (m) 1.00 V 1.00 V 1.00 V 1.00 V	300 300 300 300 300	VALUE (dBuV) 57.26 58.57 96.46 86.14	FACTOR (dB/m) 6.38 6.38 6.44 6.44

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.

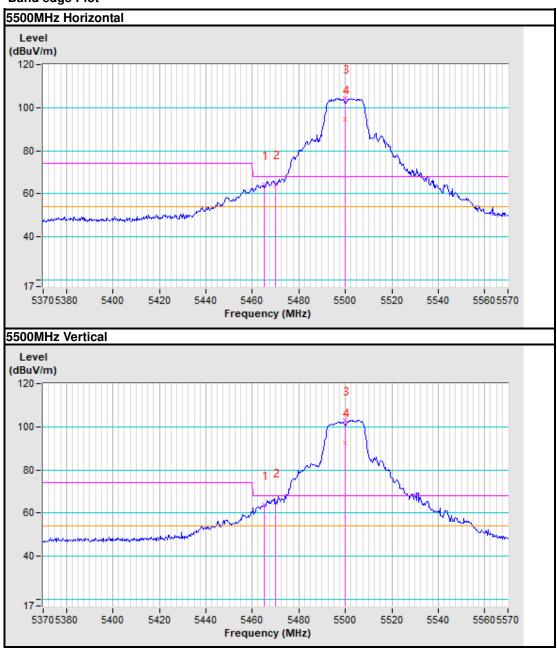
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Band edge Plot



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

	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5470.00	47.51 PK	68.20	-20.69	1.00 H	20	41.13	6.38		
2	*5580.00	105.21 PK			1.00 H	20	98.53	6.68		
3	*5580.00	95.37 AV			1.00 H	20	88.69	6.68		
4	11160.00	52.52 PK	74.00	-21.48	1.44 H	147	37.84	14.68		
5	11160.00	41.58 AV	54.00	-12.42	1.44 H	147	26.90	14.68		
6	#16740.00	53.15 PK	68.20	-15.05	1.55 H	125	32.59	20.56		
	3	ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	-		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5470.00	46.59 PK	68.20	-21.61	1.00 V	125	40.21	6.38		
2	*5580.00	103.98 PK			1.00 V	125	97.30	6.68		
3	*5580.00	94.20 AV			1.00 V	125	87.52	6.68		
4	11160.00	53.26 PK	74.00	-20.74	1.23 V	147	38.58	14.68		
5	11160.00	42.15 AV	54.00	-11.85	1.23 V	147	27.47	14.68		
6	#16740.00	54.83 PK	68.20	-13.37	1.25 V	148	34.27	20.56		

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

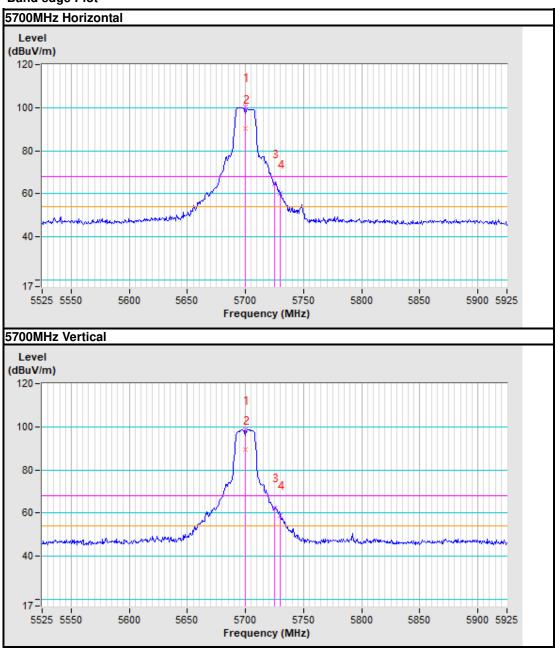
		ANTENNA F	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)					
1	*5700.00	100.33 PK			1.00 H	125	93.30	7.03					
2	*5700.00	90.21 AV			1.00 H	125	83.18	7.03					
3	#5725.00	64.73 PK	68.20	-3.47	1.00 H	125	57.63	7.10					
4	#5730.00	60.10 PK	68.20	-8.10	1.00 H	125	52.99	7.11					
5	11400.00	52.34 PK	74.00	-21.66	1.00 H	28	37.19	15.15					
6	11400.00	42.16 AV	54.00	-11.84	1.00 H	28	27.01	15.15					
7	#17100.00	54.89 PK	68.20	-13.31	1.25 H	165	33.84	21.05					
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	-					
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)					
1	*5700.00	98.59 PK			1.00 V	310	91.56	7.03					
2	*5700.00	89.41 AV			1.00 V	310	82.38	7.03					
3	#5725.00	62.58 PK	68.20	-5.62	1.00 V	310	55.48	7.10					
4	#5730.00	58.95 PK	68.20	-9.25	1.00 V	310	51.84	7.11					
5	11400.00	52.33 PK	74.00	-21.67	1.00 V	130	37.18	15.15					
6	11400.00	42.74 AV	54.00	-11.26	1.00 V	130	27.59	15.15					
7	#17100.00	54.96 PK	68.20	-13.24	1.41 V	126	33.91	21.05					

REMARKS:

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



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802.11n (20MHz)

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

	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5465.00	63.60 PK	68.20	-4.60	1.00 H	125	57.22	6.38		
2	#5470.00	63.81 PK	68.20	-4.39	1.00 H	125	57.43	6.38		
3	*5500.00	101.84 PK			1.00 H	125	95.40	6.44		
4	*5500.00	91.52 AV			1.00 H	125	85.08	6.44		
5	11000.00	53.17 PK	74.00	-20.83	1.33 H	145	38.81	14.36		
6	11000.00	42.00 AV	54.00	-12.00	1.33 H	145	27.64	14.36		
7	#16500.00	54.89 PK	68.20	-13.31	1.00 H	126	34.78	20.11		
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5465.00	63.57 PK	68.20	-4.63	1.00 V	300	57.19	6.38		
2	#5470.00	64.58 PK	68.20	-3.62	1.00 V	300	58.20	6.38		
3	*5500.00	101.11 PK			1.00 V	300	94.67	6.44		
4	*5500.00	91.52 AV			1.00 V	300	85.08	6.44		
5	11000.00	51.96 PK	74.00	-22.04	1.71 V	135	37.60	14.36		
6	11000.00	41.95 AV	54.00	-12.05	1.71 V	135	27.59	14.36		
О	11000.00	+1.007tV	04.00	12.00	1.71 V	100	27.00	1 1.00		

REMARKS:

Dongguan Branch

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

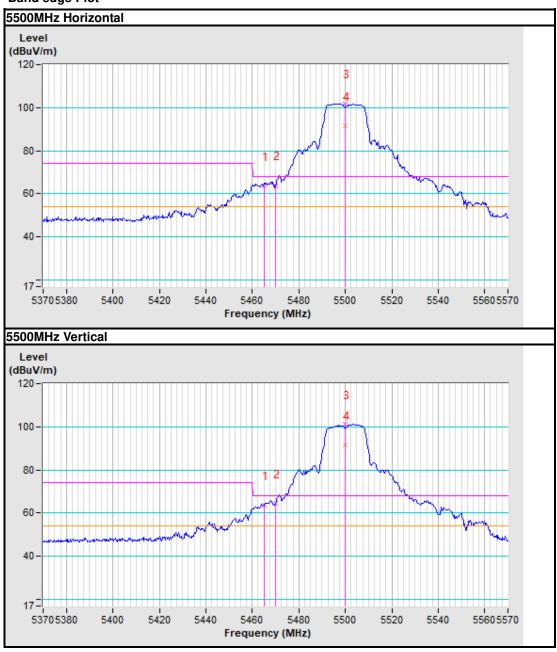
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Band edge Plot



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

		ANTENNA F	POLARITY 8	R TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.37 PK	68.20	-17.83	1.00 H	25	43.99	6.38
2	*5580.00	105.34 PK			1.00 H	25	98.66	6.68
3	*5580.00	94.96 AV			1.00 H	25	88.28	6.68
4	11160.00	52.86 PK	74.00	-21.14	1.75 H	135	38.18	14.68
5	11160.00	42.93 AV	54.00	-11.07	1.75 H	135	28.25	14.68
6	#16740.00	55.00 PK	68.20	-13.20	1.00 H	110	34.44	20.56
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.33 PK	68.20	-15.87	1.00 V	300	45.95	6.38
2	*5580.00	104.00 PK			1.00 V	300	97.32	6.68
3	*5580.00	94.35 AV			1.00 V	300	87.67	6.68
					4.50.1/	100	07.71	14.00
4	11160.00	52.39 PK	74.00	-21.61	1.50 V	126	37.71	14.68
4 5	11160.00 11160.00	52.39 PK 42.38 AV	74.00 54.00	-21.61 -11.62	1.50 V 1.50 V	126	27.70	14.68

REMARKS:

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

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

		ANTENNA F	POLARITY 8	R TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	99.90 PK			1.00 H	344	92.87	7.03
2	*5700.00	89.45 AV			1.00 H	344	82.42	7.03
3	#5725.00	63.81 PK	68.20	-4.39	1.00 H	344	56.71	7.10
4	#5730.00	60.67 PK	68.20	-7.53	1.00 H	344	53.56	7.11
5	11400.00	52.61 PK	74.00	-21.39	1.00 H	154	37.46	15.15
6	11400.00	41.95 AV	54.00	-12.05	1.00 H	154	26.80	15.15
7	#17100.00	56.93 PK	68.20	-11.27	1.20 H	156	35.88	21.05
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	-
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	98.20 PK			1.00 V	321	91.17	7.03
2	*5700.00	89.52 AV			1.00 V	321	82.49	7.03
3	#5725.00	61.59 PK	68.20	-6.61	1.00 V	321	54.49	7.10
4	#5730.00	60.14 PK	68.20	-8.06	1.00 V	321	53.03	7.11
5	11400.00	52.73 PK	74.00	-21.27	1.00 V	122	37.58	15.15
6	11400.00	41.85 AV	54.00	-12.15	1.00 V	122	26.70	15.15
7	#17100.00	55.32 PK	68.20	-12.88	1.20 V	120	34.27	21.05

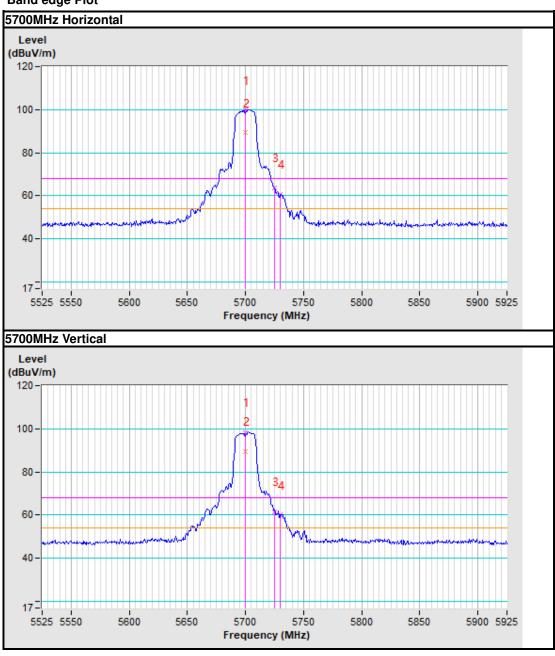
REMARKS:

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

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802.11n (40MHz)

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

		ANITENINIA	OL ADITY	TEOT BIO	FANOE !!	DIZONT	AT 0 M	
		ANTENNA F	POLARITY	LEST DIS	I ANCE : HO	RIZONTAL	AI 3 M	1
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.00	61.88 PK	68.20	-6.32	1.00 H	31	55.50	6.38
2	#5470.00	62.93 PK	68.20	-5.27	1.00 H	31	56.55	6.38
3	*5510.00	98.53 PK			1.00 H	31	92.06	6.47
4	*5510.00	89.60 AV			1.00 H	31	83.13	6.47
5	11020.00	53.43 PK	74.00	-20.57	1.75 H	155	39.04	14.39
6	11020.00	42.96 AV	54.00	-11.04	1.75 H	155	28.57	14.39
7	#16530.00	54.77 PK	68.20	-13.43	1.68 H	250	34.61	20.16
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.00	62.21 PK	68.20	-5.99	1.00 V	319	55.83	6.38
2	#5470.00	63.27 PK	68.20	-4.93	1.00 V	319	56.89	6.38
3	*5510.00	96.89 PK			1.00 V	319	90.42	6.47
4	*5510.00	87.33 AV			1.00 V	319	80.86	6.47
5	11020.00	53.15 PK	74.00	-20.85	1.00 V	136	38.76	14.39
6	11020.00	42.16 AV	54.00	-11.84	1.00 V	136	27.77	14.39
7	#16530.00	54.98 PK	68.20	-13.22	1.54 V	41	34.82	20.16

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.

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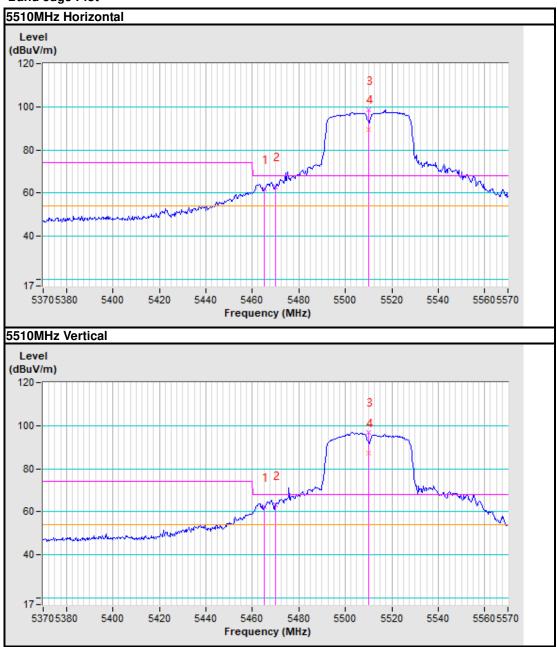
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CHANNEL	TX Channel 110	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	62.36 PK	68.20	-5.84	1.00 H	36	55.98	6.38
2	*5550.00	104.56 PK			1.00 H	36	97.98	6.58
3	*5550.00	94.88 AV			1.00 H	36	88.30	6.58
4	11100.00	52.55 PK	74.00	-21.45	1.89 H	354	38.00	14.55
5	11100.00	42.18 AV	54.00	-11.82	1.89 H	354	27.63	14.55
6	#16650.00	54.97 PK	68.20	-13.23	1.00 H	154	34.58	20.39
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	•
NO.	FREQ. (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	61.33 PK	68.20	-6.87	1.00 V	334	54.95	6.38
2	*5550.00	103.58 PK			1.00 V	334	97.00	6.58
3	*5550.00	93.68 AV			1.00 V	334	87.10	6.58
4	11100.00	52.16 PK	74.00	-21.84	1.73 V	155	37.61	14.55
5	11100.00	42.52 AV	54.00	-11.48	1.73 V	155	27.97	14.55
6	#16650.00	55.00 PK	68.20	-13.20	1.00 V	126	34.61	20.39

REMARKS:

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

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

		ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.76 PK			1.00 H	30	91.83	6.93
2	*5670.00	88.35 AV			1.00 H	30	81.42	6.93
3	#5725.00	63.00 PK	68.20	-5.20	1.00 H	30	55.90	7.10
4	#5730.00	60.00 PK	68.20	-8.20	1.00 H	30	52.89	7.11
5	11340.00	53.62 PK	74.00	-20.38	1.35 H	125	38.60	15.02
6	11340.00	42.00 AV	54.00	-12.00	1.35 H	125	26.98	15.02
7	#17010.00	55.62 PK	68.20	-12.58	1.00 H	167	34.59	21.03
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	-
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.47 PK			1.00 V	335	91.54	6.93
2	*5670.00	88.95 AV			1.00 V	335	82.02	6.93
3	#5725.00	60.50 PK	68.20	-7.70	1.00 V	335	53.40	7.10
4	#5730.00	58.11 PK	68.20	-10.09	1.00 V	335	51.00	7.11
5	11340.00	53.16 PK	74.00	-20.84	1.44 V	110	38.14	15.02
	11340.00	41.69 AV	54.00	-12.31	1.44 V	110	26.67	15.02
6	11040.00	11.0071	000					

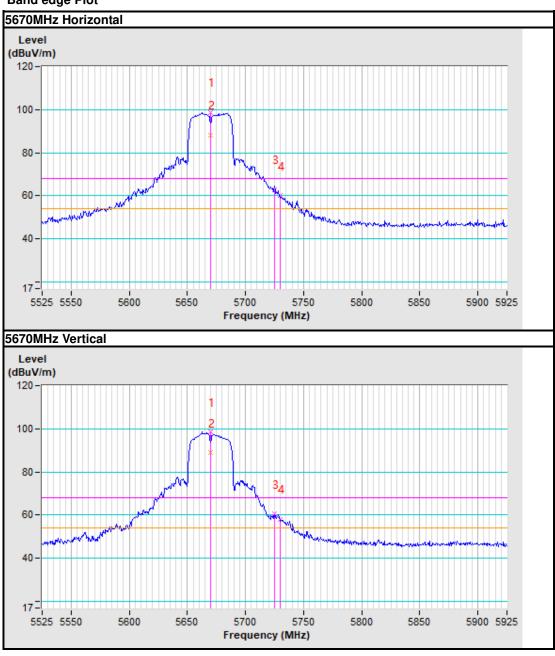
REMARKS:

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

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Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

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

		ANTENNA F	POLARITY 8	R TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.00	78.76 PK	110.80	-32.04	1.00 H	125	71.68	7.08
2	#5725.00	90.43 PK	122.20	-31.77	1.00 H	125	83.33	7.10
3	*5745.00	112.56 PK			1.00 H	155	105.40	7.16
4	*5745.00	102.58 AV			1.00 H	155	95.42	7.16
5	#5855.00	59.08 PK	110.80	-51.72	1.00 H	125	51.60	7.48
6	11490.00	51.73 PK	74.00	-22.27	1.10 H	189	36.41	15.32
7	11490.00	41.87 AV	54.00	-12.13	1.10 H	189	26.55	15.32
8	#17235.00	54.28 PK	68.20	-13.92	1.57 H	113	33.21	21.07
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	Peak (PK) Average (AV)
1	#5720.00	70.28 PK	110.80	-40.52	1.00 V	0	63.20	7.08
2	#5725.00	81.71 PK	122.20	-40.49	1.00 V	0	74.61	7.10
3	*5745.00	104.21 PK			1.00 V	125	97.05	7.16
4	*5745.00	94.33 AV			1.00 V	125	87.17	7.16
5	#5855.00	48.03 PK	110.80	-62.77	1.00 V	0	40.55	7.48
6	11490.00	51.48 PK	74.00	-22.52	1.25 V	144	36.16	15.32
7	11490.00	41.55 AV	54.00	-12.45	1.25 V	144	26.23	15.32
8	#17235.00	54.86 PK	68.20	-13.34	1.26 V	156	33.79	21.07

REMARKS:

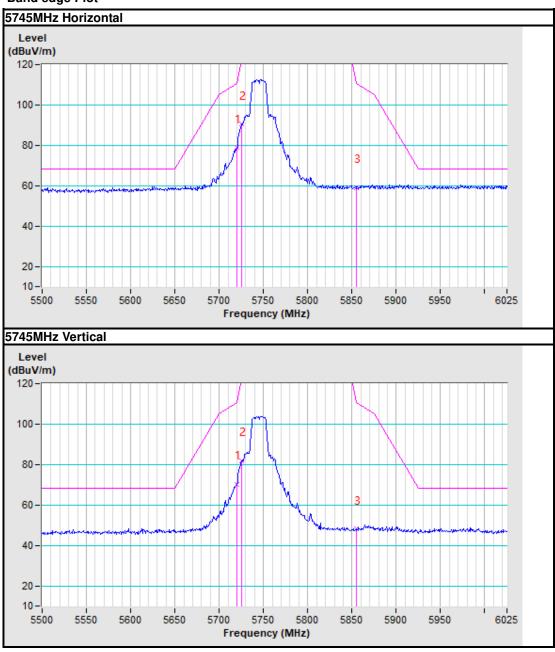
- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were greater than 20dB margin.
- 4. Margin value = Emission level Limit value.
- 5. " * ": Fundamental frequency.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

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Band edge Plot



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

	,	ANTENNA F	POLARITY 8	& TEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5703.91	52.90 PK	106.30	-53.40	1.00 H	0	45.87	7.03
2	#5722.17	54.94 PK	115.76	-60.82	1.00 H	0	47.85	7.09
3	*5785.00	112.46 PK			1.00 H	147	105.19	7.27
4	*5785.00	102.56 AV			1.00 H	147	95.29	7.27
5	#5860.65	52.14 PK	109.22	-57.08	1.00 H	0	44.65	7.49
6	11570.00	52.61 PK	74.00	-21.39	1.73 H	126	37.09	15.52
7	11570.00	42.55 AV	54.00	-11.45	1.73 H	126	27.03	15.52
8	#17355.00	54.66 PK	68.20	-13.54	1.88 H	149	33.57	21.09
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.00	48.36 PK	110.80	-62.44	1.00 V	0	41.28	7.08
2	*5785.00	104.55 PK			1.22 V	154	97.28	7.27
3	*5785.00	94.85 AV			1.22 V	154	87.58	7.27
4	#5862.93	48.79 PK	108.58	-59.79	1.00 V	0	41.30	7.49
5	#5878.15	48.63 PK	102.86	-54.23	1.00 V	0	41.08	7.55
6	11570.00	52.34 PK	74.00	-21.66	1.55 V	186	36.82	15.52
7	11570.00	42.18 AV	54.00	-11.82	1.55 V	186	26.66	15.52
8	#17355.00	54.81 PK	68.20	-13.39	1.20 V	133	33.72	21.09

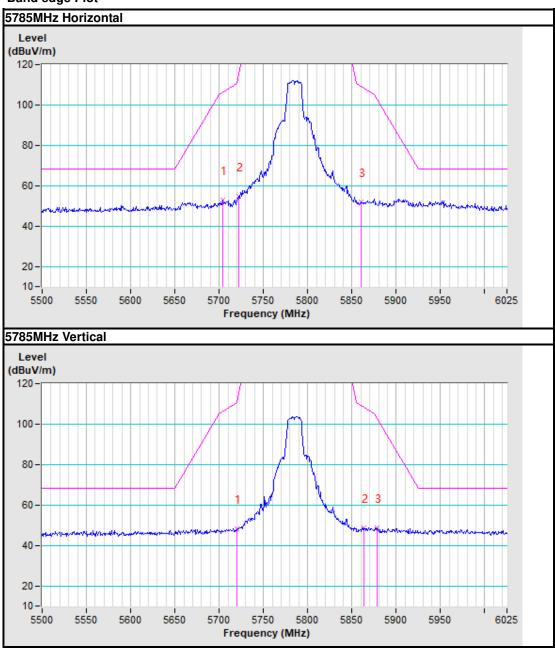
REMARKS:

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

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

		<u>ANTENNA I</u>	POLARITY 8	LEST DIS	TANCE : HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5707.72	53.59 PK	107.36	-53.77	1.00 H	0	46.55	7.04
2	*5825.00	113.87 PK			1.00 H	103	106.48	7.39
3	*5825.00	104.52 AV			1.00 H	103	97.13	7.39
4	#5850.00	76.47 PK	122.20	-45.73	1.00 H	0	69.01	7.46
5	#5856.85	69.72 PK	110.28	-40.56	1.00 H	0	62.24	7.48
6	11650.00	53.25 PK	74.00	-20.75	1.14 H	123	37.52	15.73
7	11650.00	41.88 AV	54.00	-12.12	1.14 H	123	26.15	15.73
8	#17475.00	54.80 PK	68.20	-13.40	1.20 H	115	33.69	21.11
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5741.96	51.61 PK	152.20	-100.59	1.00 V	0	44.47	7.14
2	*5825.00	104.28 PK			1.00 V	159	96.89	7.39
3	*5825.00	94.57 AV			1.00 V	159	87.18	7.39
4	#5850.00	69.67 PK	122.20	-52.53	1.00 V	0	62.21	7.46
5	#5856.85	62.39 PK	110.28	-47.89	1.00 V	0	54.91	7.48
6	11650.00	54.32 PK	74.00	-19.68	1.47 V	159	38.59	15.73
7	11650.00	41.69 AV	54.00	-12.31	1.47 V	159	25.96	15.73
8	#17475.00	54.59 PK	68.20	-13.61	1.37 V	184	33.48	21.11

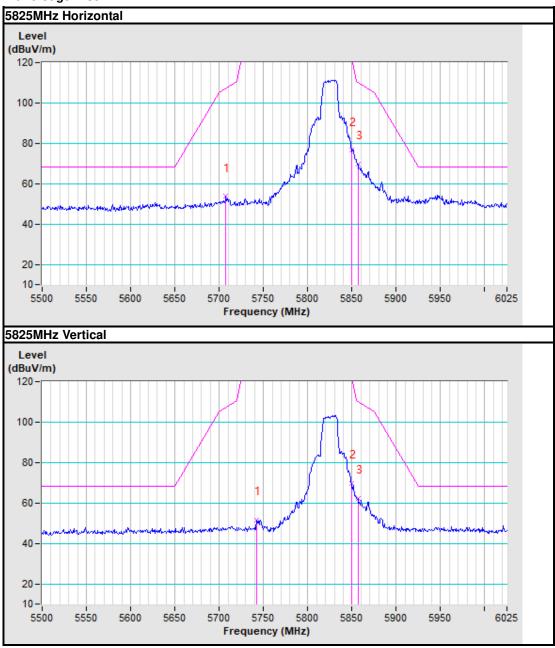
REMARKS:

- 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.

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802.11n (20MHz)

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

		ΛΝΤΕΝΝΛΙ	ON ARITY S	. TEST DIS	TANCE : HO	DIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5719.89	81.59 PK	110.77	-29.18	1.00 H	0	74.51	7.08
2	#5725.00	90.13 PK	122.20	-32.07	1.00 H	0	83.03	7.10
3	*5745.00	113.21 PK			1.00 H	128	106.05	7.16
4	*5745.00	103.86 AV			1.00 H	128	96.70	7.16
5	#5806.63	65.65 PK	152.20	-86.55	1.00 H	0	58.31	7.34
6	11490.00	54.35 PK	74.00	-19.65	1.00 H	155	39.03	15.32
7	11490.00	42.36 AV	54.00	-11.64	1.00 H	155	27.04	15.32
8	#17235.00	55.68 PK	68.20	-12.52	1.25 H	149	34.61	21.07
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5720.65	76.43 PK	112.29	-35.86	1.00 V	0	69.34	7.09
2	#5725.00	82.62 PK	122.20	-39.58	1.00 V	0	75.52	7.10
3	*5745.00	104.56 PK			1.00 V	150	97.40	7.16
4	*5745.00	94.22 AV			1.00 V	150	87.06	7.16
5	#5805.87	57.72 PK	152.20	-94.48	1.00 V	0	50.38	7.34
6	11490.00	54.68 PK	74.00	-19.32	1.00 V	188	39.36	15.32
7	11490.00	42.51 AV	54.00	-11.49	1.00 V	188	27.19	15.32
8	#17235.00	55.75 PK	68.20	-12.45	1.30 V	156	34.68	21.07

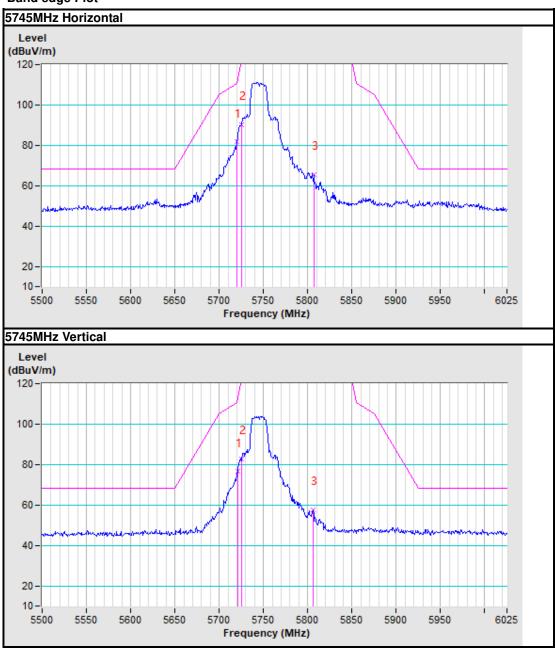
REMARKS:

- 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.

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

				. ===========				
ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5713.80	55.96 PK	109.07	-53.11	1.00 H	0	48.90	7.06
2	*5785.00	113.08 PK			1.33 H	120	105.81	7.27
3	*5785.00	103.52 AV			1.33 H	120	96.25	7.27
4	#5854.57	59.81 PK	111.79	-51.98	1.00 H	0	52.33	7.48
5	#5861.41	57.20 PK	109.00	-51.80	1.00 H	0	49.71	7.49
6	11570.00	53.86 PK	74.00	-20.14	1.77 H	136	38.34	15.52
7	11570.00	41.79 AV	54.00	-12.21	1.77 H	136	26.27	15.52
8	#17355.00	55.40 PK	68.20	-12.80	1.45 H	150	34.31	21.09
	3	ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5724.46	52.16 PK	120.96	-68.80	1.00 V	0	45.06	7.10
2	*5785.00	104.21 PK			1.64 V	151	96.94	7.27
3	*5785.00	94.55 AV			1.64 V	151	87.28	7.27
4	#5855.33	52.10 PK	110.71	-58.61	1.00 V	0	44.62	7.48
5	#5866.74	49.32 PK	107.51	-58.19	1.00 V	0	41.81	7.51
6	11570.00	53.11 PK	74.00	-20.89	1.22 V	136	37.59	15.52
7	11570.00	41.62 AV	54.00	-12.38	1.22 V	136	26.10	15.52
8	#17355.00	55.68 PK	68.20	-12.52	1.00 V	126	34.59	21.09

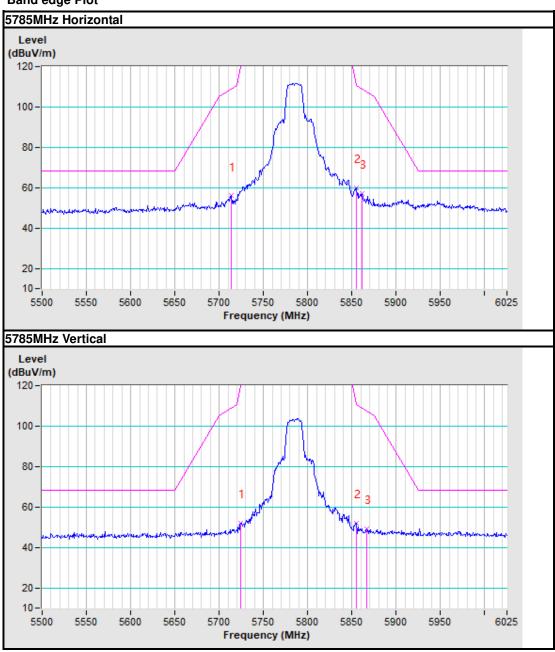
REMARKS:

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

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CHANNEL	TX Channel 165	DETECTOR	Peak (PK)	
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	#5707.72	52.15 PK	107.36	-55.21	1.00 H	0	45.11	7.04
2	*5825.00	113.10 PK			1.67 H	152	105.71	7.39
3	*5825.00	103.54 AV			1.67 H	152	96.15	7.39
4	#5850.00	81.06 PK	122.20	-41.14	1.00 H	0	73.60	7.46
5	#5856.85	74.45 PK	110.28	-35.83	1.00 H	0	66.97	7.48
6	11650.00	52.77 PK	74.00	-21.23	1.00 H	185	37.04	15.73
7	11650.00	41.06 AV	54.00	-12.94	1.00 H	185	25.33	15.73
8	#17475.00	55.32 PK	68.20	-12.88	1.22 H	168	34.21	21.11
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	•
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5711.52	48.51 PK	108.43	-59.92	1.00 V	0	41.45	7.06
2	*5825.00	104.86 PK			1.87 V	165	97.47	7.39
3	*5825.00	94.77 AV			1.87 V	165	87.38	7.39
4	#5850.00	72.72 PK	122.20	-49.48	1.00 V	0	65.26	7.46
5	#5864.46	62.35 PK	108.15	-45.80	1.00 V	0	54.84	7.51
6	11650.00	52.86 PK	74.00	-21.14	1.25 V	144	37.13	15.73
7	11650.00	41.83 AV	54.00	-12.17	1.25 V	144	26.10	15.73
8	#17475.00	55.15 PK	68.20	-13.05	1.36 V	120	34.04	21.11

REMARKS:

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Dongguan Branch

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

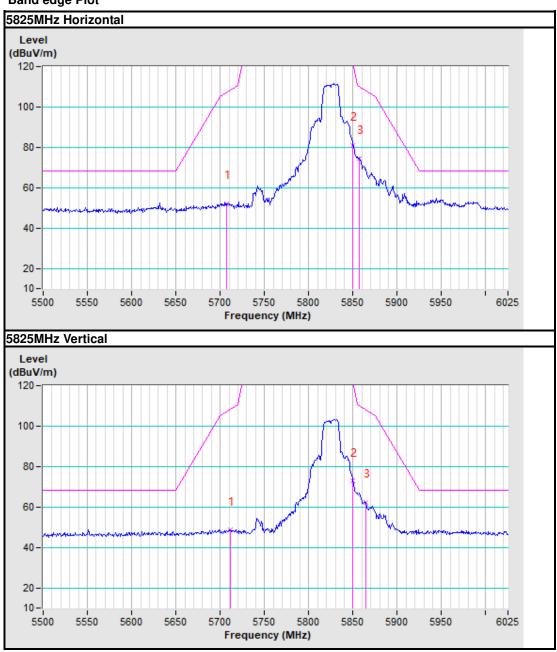
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Band edge Plot



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802.11n (40MHz)

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

	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M							
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5713.80	84.58 PK	109.07	-24.49	1.00 H	0	77.52	7.06
2	#5725.00	88.33 PK	122.20	-33.87	1.00 H	0	81.23	7.10
3	*5755.00	109.86 PK			1.20 H	156	102.68	7.18
4	*5755.00	99.54 AV			1.20 H	156	92.36	7.18
5	#5861.41	60.60 PK	109.00	-48.40	1.00 H	0	53.11	7.49
6	11510.00	52.11 PK	74.00	-21.89	1.30 H	144	36.74	15.37
7	11510.00	41.58 AV	54.00	-12.42	1.30 H	144	26.21	15.37
8	#17265.00	54.45 PK	68.20	-13.75	1.35 H	166	33.38	21.07
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M	-
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5713.80	77.83 PK	109.07	-31.24	1.00 V	0	70.77	7.06
2	#5725.00	80.42 PK	122.20	-41.78	1.00 V	0	73.32	7.10
3	*5755.00	102.31 PK			1.20 V	156	95.13	7.18
4	*5755.00	92.65 AV			1.20 V	156	85.47	7.18
5	#5857.61	54.65 PK	110.07	-55.42	1.00 V	0	47.17	7.48
6	11510.00	52.55 PK	74.00	-21.45	1.00 V	125	37.18	15.37
7	11510.00	41.37 AV	54.00	-12.63	1.00 V	125	26.00	15.37
8	#17265.00	54.86 PK	68.20	-13.34	1.00 V	146	33.79	21.07

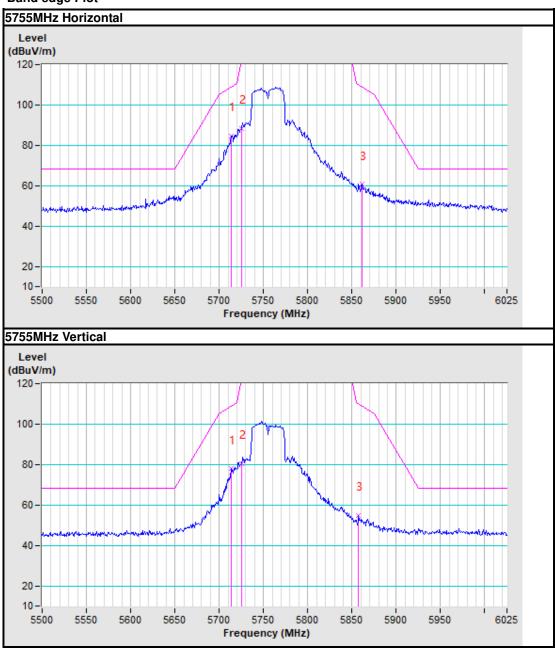
REMARKS:

- 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.

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

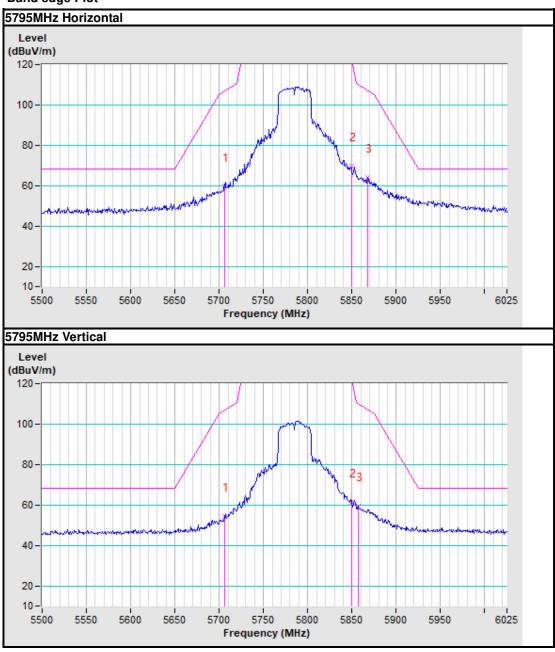
	ANTENNA DOL ABITY A TEST BISTANCE, HODIZONITAL AT 2.14									
	ANTENNA POLARITY & TEST DISTANCE : HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5706.20	59.68 PK	106.94	-47.26	1.00 H	0	52.64	7.04		
2	*5795.00	109.42 PK			1.47 H	158	102.12	7.30		
3	*5795.00	99.85 AV			1.47 H	158	92.55	7.30		
4	#5850.00	69.80 PK	122.20	-52.40	1.00 H	0	62.34	7.46		
5	#5867.50	64.17 PK	107.30	-43.13	1.00 H	0	56.66	7.51		
6	11590.00	52.64 PK	74.00	-21.36	1.00 H	160	37.07	15.57		
7	11590.00	42.55 AV	54.00	-11.45	1.00 H	160	26.98	15.57		
8	#17385.00	55.62 PK	68.20	-12.58	1.00 H	152	34.52	21.10		
		ANTENNA	POLARITY	& TEST DI	STANCE : V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	#5706.20	54.48 PK	106.94	-52.46	1.00 V	0	47.44	7.04		
2	*5795.00	102.33 PK			1.25 V	144	95.03	7.30		
3	*5795.00	92.45 AV			1.25 V	144	85.15	7.30		
4	#5850.00	61.47 PK	122.20	-60.73	1.00 V	0	54.01	7.46		
5	#5856.85	59.58 PK	110.28	-50.70	1.00 V	0	52.10	7.48		
6	11590.00	52.20 PK	74.00	-21.80	1.20 V	183	36.63	15.57		
7	11590.00	41.63 AV	54.00	-12.37	1.20 V	183	26.06	15.57		
8	#17385.00	55.75 PK	68.20	-12.45	1.63 V	125	34.65	21.10		

REMARKS:

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



Band edge Plot



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CONDUCTED EMISSION MEASUREMENT 3.2

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTES: 1. The lower limit shall apply at the transition frequencies.

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

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Jan. 18,23
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Jan. 23,23
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Jan. 18,23
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Aug. 05,22
Coaxial RF Cable	/	CE CABLE	C2310066DG	Jul. 27,22
Test software	ADT	ADT_Cond_V7.3	N/A	N/A

NOTES:

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

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3.2.3 TEST PROCEDURES

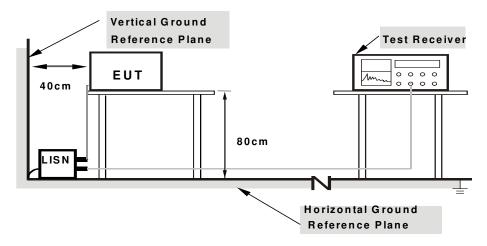
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

3.2.4 **DEVIATION FROM TEST STANDARD**

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7

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3.2.7 TEST RESULTS

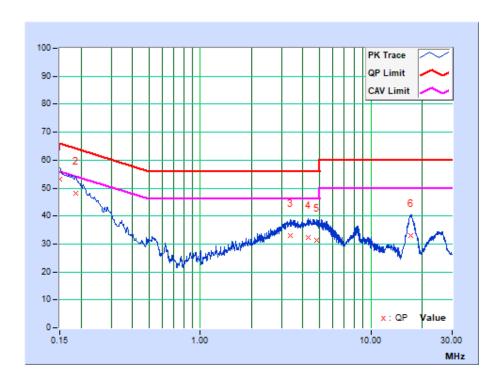
CONDUCTED WORST-CASE DATA: 802.11a CH36

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

NI	Freq.	Freq. Corr.	Reading Value [dB (uV)]		_	Emission Level		Limit		Margin	
No		ractor			[dB (uV)]		[dB (uV)]		(dB)		
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.15000	9.90	43.29	21.11	53.19	31.01	66.00	56.00	-12.81	-24.99	
2	0.18559	9.91	38.39	14.99	48.30	24.90	64.23	54.23	-15.93	-29.33	
3	3.37425	10.14	22.72	15.12	32.86	25.26	56.00	46.00	-23.14	-20.74	
4	4.31025	10.16	22.09	15.99	32.25	26.15	56.00	46.00	-23.75	-19.85	
5	4.78950	10.17	21.23	15.68	31.40	25.85	56.00	46.00	-24.60	-20.15	
6	17.07450	10.44	22.43	13.55	32.87	23.99	60.00	50.00	-27.13	-26.01	

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

- 2. The emission levels of other frequencies were very low against the limit.
- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value.



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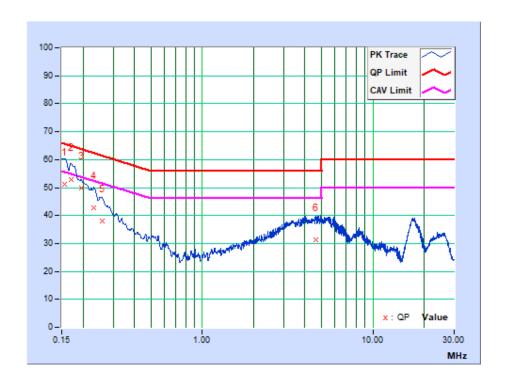


PHASE	Neutral	6dB BANDWIDTH	9kHz
-------	---------	---------------	------

Freq.		Corr.	l level			Lir	nit	Margin		
No	lo Factor		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15509	9.84	41.32	21.39	51.16	31.23	65.72	55.72	-14.56	-24.49
2	0.16966	9.84	42.99	21.26	52.83	31.10	64.98	54.98	-12.14	-23.87
3	0.19514	9.85	40.12	14.69	49.97	24.54	63.81	53.81	-13.85	-29.28
4	0.23106	9.85	33.05	12.90	42.90	22.75	62.41	52.41	-19.51	-29.66
5	0.25748	9.85	28.13	7.74	37.98	17.59	61.51	51.51	-23.53	-33.92
6	4.63875	9.97	21.31	16.09	31.28	26.06	56.00	46.00	-24.72	-19.94

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak an d average individually.

- 2. The emission levels of other frequencies were very low against the limit.
- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value.



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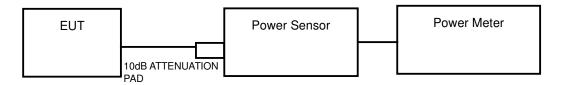
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

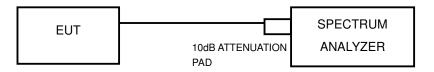
Operation Band		EUT Category	LIMIT	
		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≤ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)	
U-NII-1		Fixed point-to-point Access Point	1 Watt (30 dBm)	
		Indoor Access Point	1 Watt (30 dBm)	
	$\sqrt{}$	Mobile and Portable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



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3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	Feb.23.23
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, 22
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 11, 22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 16, 23
Signal Generator	Agilent	N5183A	MY50140980	Mar 23, 23
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 14, 22
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A

NOTES:

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

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

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



FOR 6dB BANDWIDTH

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

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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

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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	17.62	57.810	24.00	PASS
40	5200	18.10	64.565	24.00	PASS
48	5240	18.65	73.282	24.00	PASS
52	5260	18.78	75.509	24.00	PASS
60	5300	19.12	81.658	24.00	PASS
64	5320	19.11	81.470	24.00	PASS
100	5500	19.91	97.949	24.00	PASS
116	5580	19.49	88.920	24.00	PASS
140	5700	14.82	30.339	24.00	PASS
149	5745	19.61	91.411	30.00	PASS
157	5785	18.53	71.285	30.00	PASS
165	5825	18.48	70.469	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

- 1. 11dBm + 10log (35.87) = 26.55 dBm > 24dBm
- 2. 11dBm + 10log (35.91) = 26.55 dBm > 24dBm
- 3. 11dBm + 10log (37.65) = 26.76 dBm > 24dBm
- 4. 11dBm + 10log (37.74) = 26.77 dBm > 24dBm
- 5. 11dBm + 10log (34.32) = 26.36 dBm > 24dBm
- 6. 11dBm + 10log (21.45) = 24.31 dBm > 24dBm



802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	17.25	53.088	24.00	PASS
40	5200	17.81	60.395	24.00	PASS
48	5240	18.18	65.766	24.00	PASS
52	5260	18.59	72.277	24.00	PASS
60	5300	18.82	76.208	24.00	PASS
64	5320	18.74	74.817	24.00	PASS
100	5500	19.21	83.368	24.00	PASS
116	5580	18.73	74.645	24.00	PASS
140	5700	15.22	33.266	24.00	PASS
149	5745	19.27	84.528	30.00	PASS
157	5785	18.52	71.121	30.00	PASS
165	5825	18.32	67.920	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (39.37) = 26.95 dBm > 24dBm

11dBm + 10log (39.12) = 26.92 dBm > 24dBm

11dBm + 10log (39.52) = 26.97 dBm > 24dBm

11dBm + 10log (39.52) = 26.97 dBm > 24dBm

11dBm + 10log (36.44) = 26.62 dBm > 24dBm

11dBm + 10log (22.20) = 24.46 dBm > 24dBm

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802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	17.24	52.966	24.00	PASS
46	5230	19.10	81.283	24.00	PASS
54	5270	18.87	77.090	24.00	PASS
62	5310	18.41	69.343	24.00	PASS
102	5510	17.23	52.845	24.00	PASS
110	5550	19.63	91.833	24.00	PASS
134	5670	16.81	47.973	24.00	PASS
151	5755	19.56	90.365	30.00	PASS
159	5795	18.57	71.945	30.00	PASS

Note:

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (79.17) = 29.99 dBm > 24dBm

11dBm + 10log (75.85) = 29.80 dBm > 24dBm

11dBm + 10log (57.84) = 28.62 dBm > 24dBm

11dBm + 10log (79.39) = 30.00 dBm > 24dBm

11dBm + 10log (57.45) = 24.46 dBm > 24dBm

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26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	33.84	PASS
40	5200	35.92	PASS
48	5240	37.82	PASS
52	5260	35.87	PASS
60	5300	35.91	PASS
64	5320	37.65	PASS
100	5500	37.74	PASS
116	5580	34.32	PASS
140	5700	21.45	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	33.82	PASS
40	5200	38.24	PASS
48	5240	39.10	PASS
52	5260	39.37	PASS
60	5300	39.12	PASS
64	5320	39.52	PASS
100	5500	39.52	PASS
116	5580	36.44	PASS
140	5700	22.20	PASS

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802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	65.66	PASS
46	5230	79.56	PASS
54	5270	79.17	PASS
62	5310	75.85	PASS
102	5510	57.84	PASS
110	5550	79.39	PASS
134	5670	57.45	PASS

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6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.35	PASS
157	5785	16.35	PASS
165	5825	16.37	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.93	PASS
157	5785	17.01	PASS
165	5825	17.03	PASS

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.26	PASS
159	5795	35.22	PASS

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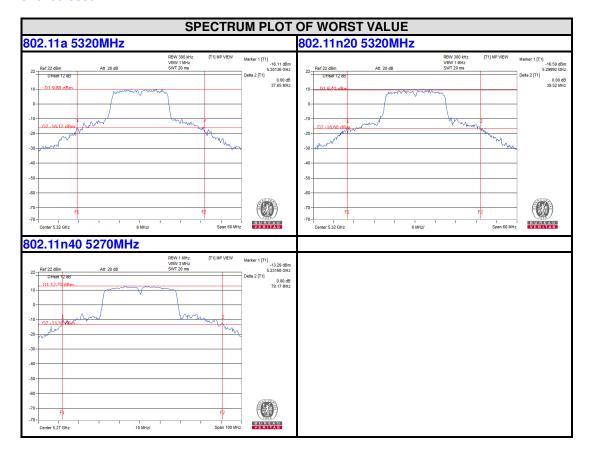
26dB bandwidth Test Plot For 5150-5250MHz



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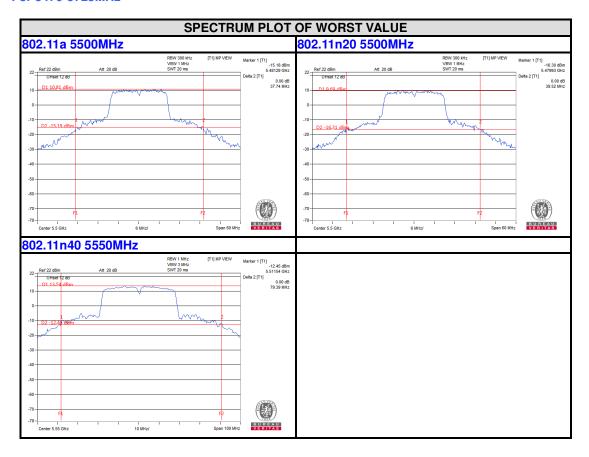
For 5250-5350MHz



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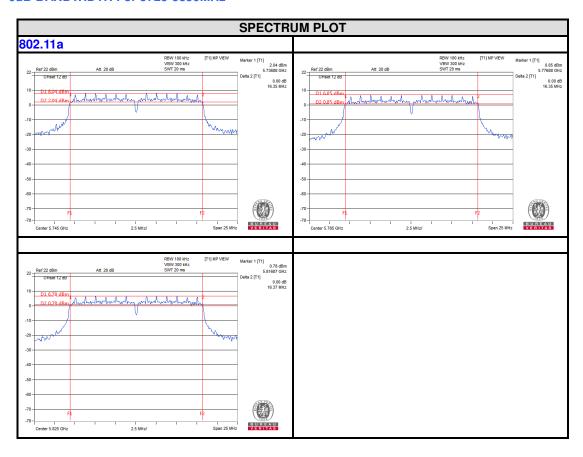
For 5470-5725MHz



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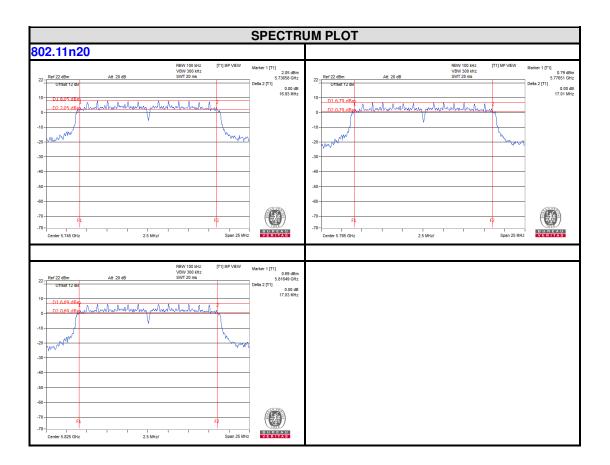


6dB BANDWIDTH For 5725-5850MHz



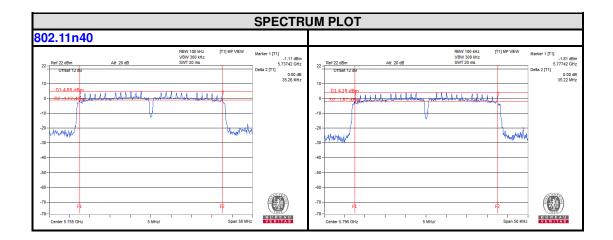
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3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band		EUT Category	LIMIT
		Outdoor Access Point	
U-NII-1		Fixed point-to-point Access Point	17dBm/ MHz
U-INII- I		Indoor Access Point	
	V	Mobile and Portable client device	11dBm/ MHz
U-NII-2A		$\sqrt{}$	11dBm/ MHz
U-NII-2C	V		11dBm/ MHz
U-NII-3		$\sqrt{}$	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)

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For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 500 kHz, Set VBW = 2 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6

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TEST RESULTS 3.4.7

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

802.11a

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
36	5180	4.15	0.269	4.419	11.00	PASS
40	5200	4.60	0.269	4.869	11.00	PASS
48	5240	5.18	0.269	5.449	11.00	PASS
52	5260	5.56	0.269	5.829	11.00	PASS
60	5300	5.88	0.269	6.149	11.00	PASS
64	5320	5.48	0.269	5.749	11.00	PASS
100	5500	6.37	0.269	6.639	11.00	PASS
116	5580	5.81	0.269	6.079	11.00	PASS
140	5700	2.21	0.269	2.479	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.42	0.269	4.69	30.00	PASS
157	5785	3.28	0.269	3.55	30.00	PASS
165	5825	3.23	0.269	3.50	30.00	PASS

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

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802.11n (20MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
36	5180	3.45	0.306	3.756	11.00	PASS
40	5200	3.99	0.306	4.296	11.00	PASS
48	5240	4.25	0.306	4.556	11.00	PASS
52	5260	4.92	0.306	5.226	11.00	PASS
60	5300	5.06	0.306	5.366	11.00	PASS
64	5320	5.00	0.306	5.306	11.00	PASS
100	5500	5.42	0.306	5.726	11.00	PASS
116	5580	4.82	0.306	5.126	11.00	PASS
140	5700	1.34	0.306	1.646	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.07	0.306	4.38	30.00	PASS
157	5785	3.11	0.306	3.42	30.00	PASS
165	5825	2.87	0.306	3.18	30.00	PASS

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

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802.11n (40MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
38	5190	0.13	0.57	0.70	11.00	PASS
46	5230	2.87	0.57	3.44	11.00	PASS
54	5270	2.01	0.57	2.58	11.00	PASS
62	5310	1.42	0.57	1.99	11.00	PASS
102	5510	0.79	0.57	1.36	11.00	PASS
118	5590	2.68	0.57	3.25	11.00	PASS
134	5670	-0.31	0.57	0.26	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	0.53	0.57	1.10	30.00	PASS
159	5795	-0.15	0.57	0.42	30.00	PASS

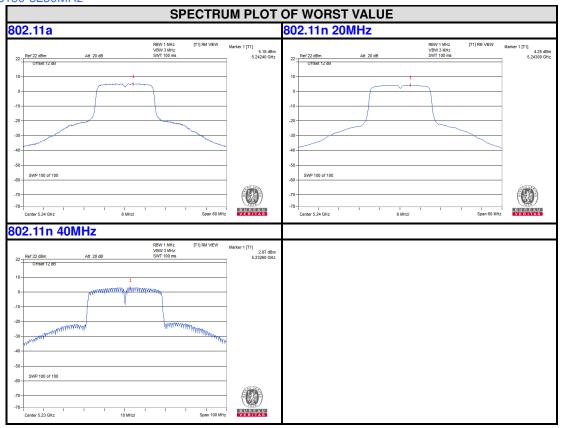
Note: Refer to section 2.3 for duty cycle spectrum plot.

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PSD Test Plot

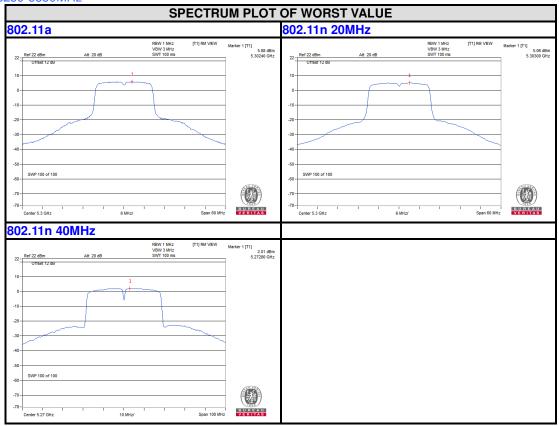
BAND 1 5150-5250MHz



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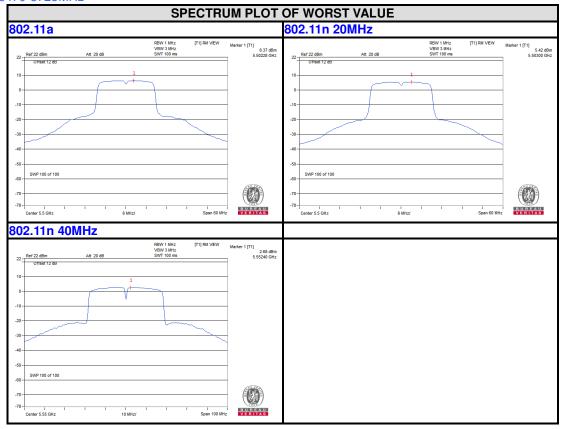
BAND 2 5250-5350MHz



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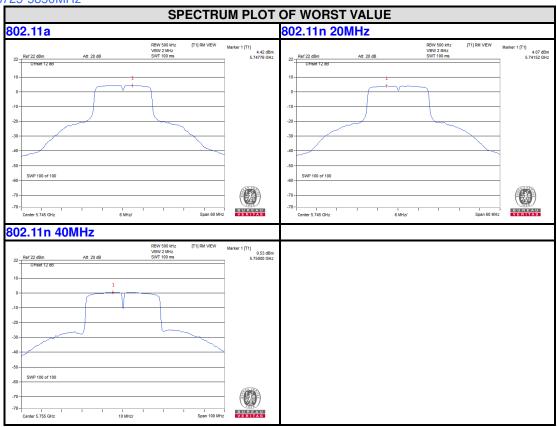
BAND 3 5470-5725MHz



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BAND4 5725-5850MHz



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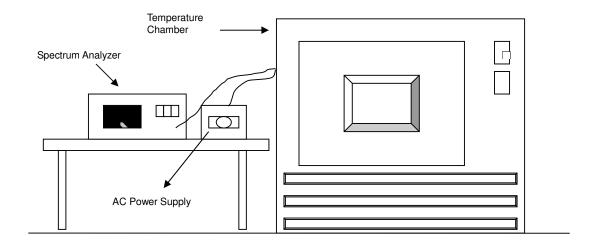


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

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3.5.4 TEST PROCEDURE

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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

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

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TEST RESULTS 3.5.7

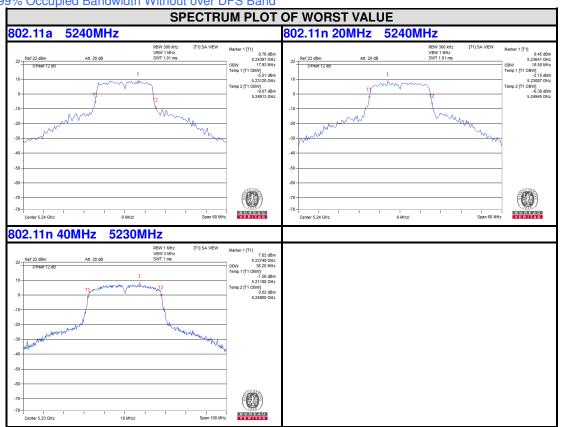
FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
TEMP. (°C)		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.9762	-0.00046	5179.9758	-0.00047	5179.9781	-0.00042	5179.9765	-0.00045
40	120	5179.9767	-0.00045	5179.978	-0.00042	5179.9802	-0.00038	5179.9758	-0.00047
30	120	5180.005	0.00010	5180.0017	0.00003	5180.0047	0.00009	5180.002	0.00004
20	120	5180.0052	0.00010	5180.0064	0.00012	5180.0045	0.00009	5180.0073	0.00014
10	120	5179.9934	-0.00013	5179.996	-0.00008	5179.9924	-0.00015	5179.9946	-0.00010
0	120	5179.9876	-0.00024	5179.9884	-0.00022	5179.9888	-0.00022	5179.9889	-0.00021
-10	120	5179.9771	-0.00044	5179.9744	-0.00049	5179.9777	-0.00043	5179.9779	-0.00043
-20	120	5179.9873	-0.00025	5179.9887	-0.00022	5179.9897	-0.00020	5179.9889	-0.00021
-30	120	5180.0053	0.00010	5180.0081	0.00016	5180.0088	0.00017	5180.0092	0.00018

FREQUEMCY STABILITY VERSUS TEMP.										
	OPERATING FREQUENCY: 5180MHz									
	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE		
r emp. (℃)		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	
	138	5180.0048	0.00009	5180.0066	0.00013	5180.0055	0.00011	5180.0077	0.00015	
20	120	5180.0052	0.00010	5180.0064	0.00012	5180.0045	0.00009	5180.0073	0.00014	
	102	5180.0056	0.00011	5180.0059	0.00011	5180.0039	0.00008	5180.0067	0.00013	

Dongguan Branch



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

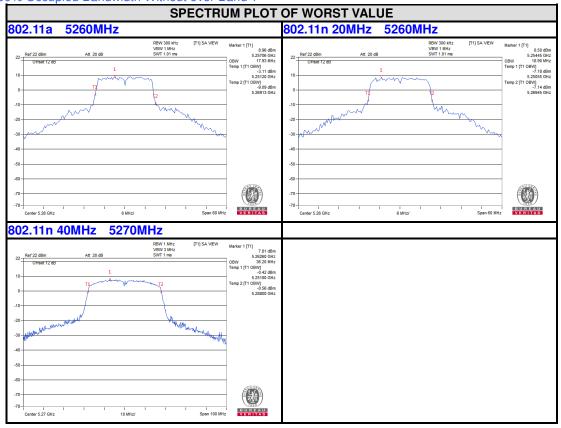


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Band 2 5250-5350MHz

99% Occupied Bandwidth Without over Band 1



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4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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

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

---END---

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