

TEST REPORT

Applicant	Zhiwei Robotics Corp.
Address	Room 615,Building Y1,112 liangxiu road,Pudong,shanghai Municipality,China.

Manufacturer or Supplier	Zhiwei Robotics Corp.
Address	Room 615,Building Y1,112 liangxiu road,Pudong,shanghai Municipality,China.
Product Name	LattePanda Alpha
Brand Name	LattePanda
Model	DFR0546
Additional Model & Model Difference	DFR0545, DFR0547, see items 3.1
Date of tests	Aug. 20, 2019 ~ Sep. 18, 2019

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

☒ **FCC Part 15, Subpart E, Section 15.407**

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

Tested by Andy Zhu Project Engineer/ EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Oct. 21, 2019

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Test Report No.: RF190820N012-4

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190820N012-4	Original release.	Oct. 21, 2019

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	No antenna connector is used

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.90dB
	30MHz ~ 1GMHz	3.76dB
	1GHz ~ 18GHz	4.84dB
	18GHz ~ 40GHz	4.96dB

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT NAME	LattePanda Alpha
MODEL NO.	DFR0546
FCC ID	2AIDMLPDF0546
POWER SUPPLY	DC 20V or 15V or 12V or DC 9V or 5V form Adapter
MODULATION TECHNOLOGY	OFDM
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
TRANSMISSION RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 1 channel for 802.11ac 80MHz 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 1 channel for 802.11ac (80MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 2 channel for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz) 1 channel for 802.11ac (80MHz)
CONDUCTED OUTPUT POWER	11.85dBm for 5150 ~ 5250MHz (Maximum AVG Power) 11.87dBm for 5250 ~ 5350MHz (Maximum AVG Power) 11.13dBm for 5470 ~ 5725MHz (Maximum AVG Power) 11.44dBm for 5725 ~ 5850MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: FPC antenna with 0.61dBi gain 5260 ~ 5320MHz: FPC antenna with 0.61dBi gain 5500 ~ 5700MHz: FPC antenna with 0.61dBi gain 5745 ~ 5825MHz: FPC antenna with 0.61dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTES:

1. The EUT incorporates a SISO function. Physically, the EUT provides 1 completed transmitter and 1 receiver.

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

The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Please refer to the EUT photo document (Reference No.: 190820N012) for detailed product photo.
5. Additional models DFR0545, DFR0547 are identical with the test model DFR0546 except the model number for marketing purpose
6. The EUT was powered by the following adapter:

Adapter	
BRAND:	N/A
MODEL:	PD45+QC3.0
INPUT:	AC 100-240V, 50/60HZ 1A
OUTPUT:	DC 20V 2.25A/ DC 15V 3A/ DC 12V 3A/ DC 9V 3A/ DC 5V 3A
DC LINE:	Unshielded, Non-detachable, 1.45m
AC LINE:	Unshielded, Detachable, 50cm

2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--

FOR 5470 ~ 5725MHz

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

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

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

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

2 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

FOR 5725 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√-	Powered by Adapter with wifi(5G) link

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

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

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

NOTE: "-" means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	OFDM	BPSK	29.3
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

POWER LINE CONDUCTED EMISSION TEST:

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

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

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	OFDM	BPSK	29.3
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	24deg. C, 55%RH	AC 120V/60Hz	Hu
RE≥1G	24deg. C, 55%RH	AC 120V/60Hz	Hu
PLC	20deg. C, 56%RH	AC 120V/60Hz	Dragon
APCM	20deg. C, 55%RH	AC 120V/60Hz	Eric Fang



BUREAU
VERITAS

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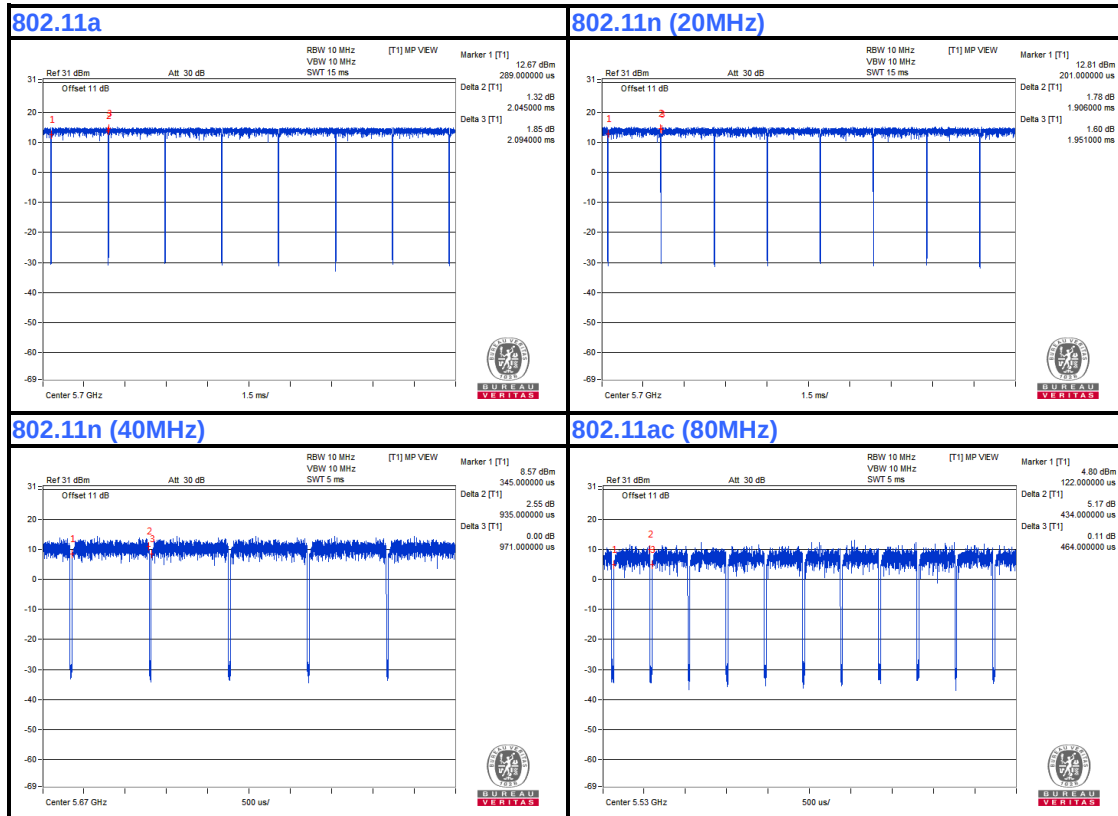
2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = $2.045/2.094 = 0.977$, Duty factor = $10 * \log(1/0.956) = 0.103$

802.11n (HT20): Duty cycle = $1.906/1.951 = 0.977$, Duty factor = $10 * \log(1/0.952) = 0.101$

802.11n (HT40): Duty cycle = $0.935/0.971 = 0.963$, Duty factor = $10 * \log(1/0.908) = 0.164$

802.11ac (VHT80): Duty cycle = $0.434/0.464 = 0.935$, Duty factor = $10 * \log(1/0.848) = 0.290$





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	N/A	N/A	N/A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	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 v01r03

ANSI C63.10-2013

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

3. TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTES:

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

3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

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

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

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

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

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

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 12,19	Mar. 11,20
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 22,19	May 21,20
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 04,19	May 03,20
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Apr. 21,19	Apr. 20,20
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	Aug. 11, 19	Aug. 10, 20
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Jul. 21, 19	Jul. 20, 20
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	May 05,19	May 04,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Apr. 21,19	Apr. 20,20
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 21,19	Apr. 20,20
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 09,18	Nov. 08,19
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	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, GREGT/CHINA and NIM/CHINA.
2. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
3. The FCC Site Registration No. is 749762.

3.1.4 TEST PROCEDURES

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

NOTES:

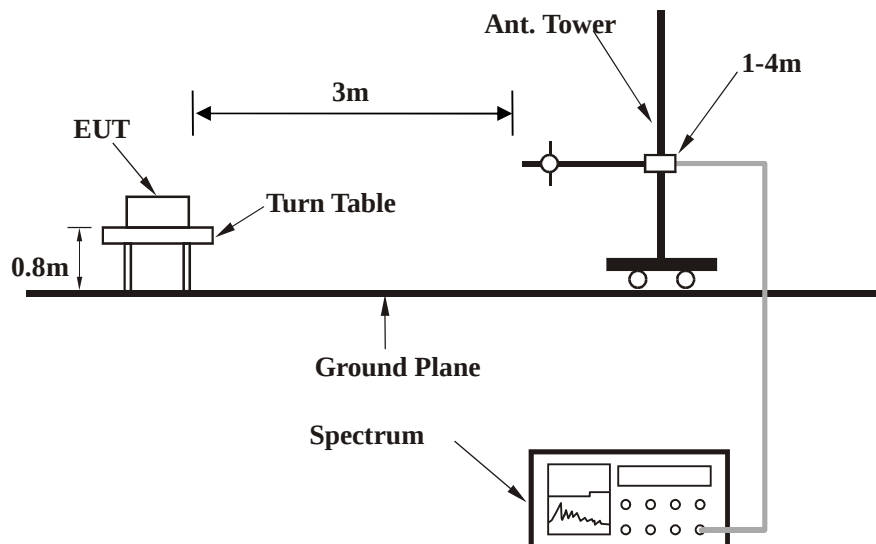
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

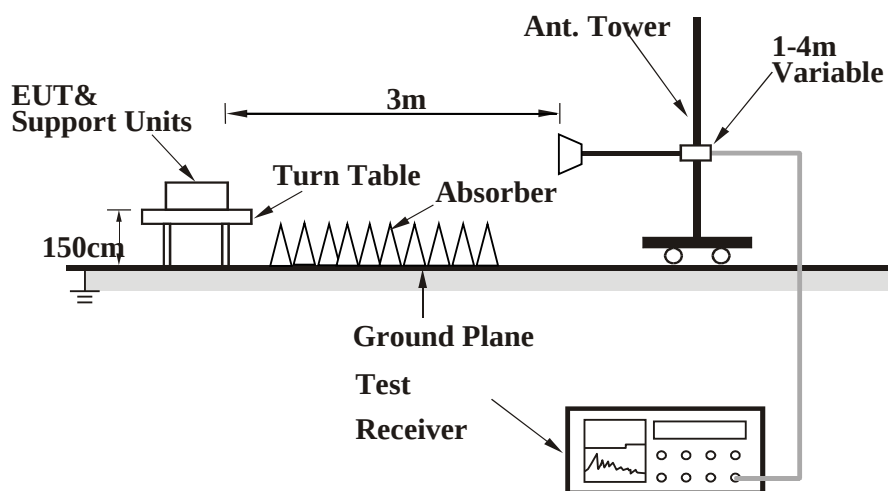
3.1.6 TEST SETUP

Below 1GHz test setup



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

Above 1GHz test setup



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



3.1.7 EUT OPERATING CONDITION

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

3.1.8 FTEST RESULTS

BELOW 1GHz WORST-CASE DATA

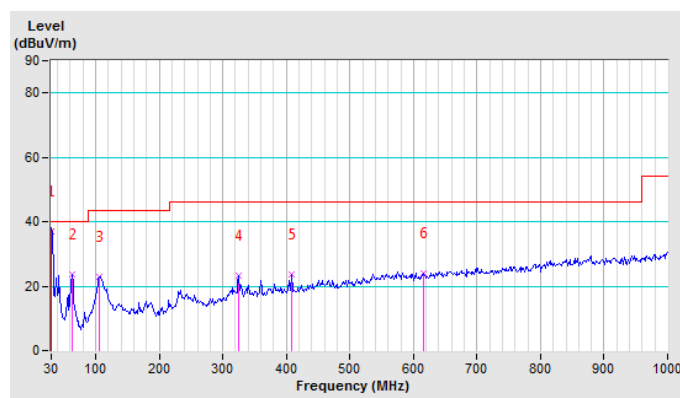
802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.16	36.82 QP	40.00	-3.18	1.00 H	152	48.09	-11.27
2	62.64	23.59 QP	40.00	-16.41	2.00 H	303	46.90	-23.31
3	106.17	23.00 QP	43.50	-20.50	2.00 H	179	40.56	-17.56
4	325.35	23.14 QP	46.00	-22.86	2.00 H	204	34.20	-11.06
5	407.74	23.74 QP	46.00	-22.26	2.00 H	82	32.85	-9.11
6	616.04	23.94 QP	46.00	-22.06	2.00 H	77	28.62	-4.68

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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.

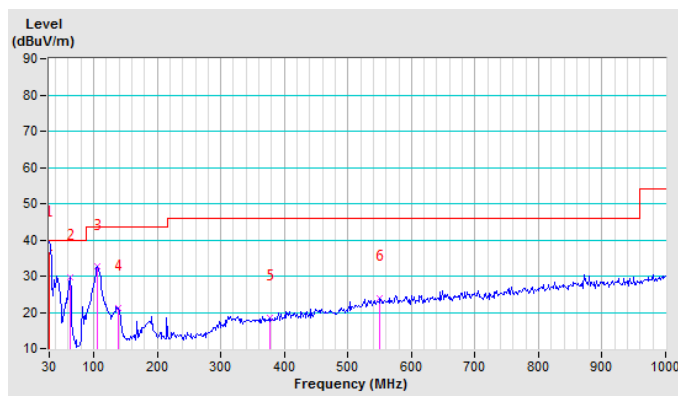


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.75	36.30 QP	40.00	-3.70	1.00 V	192	47.83	-11.53
2	62.64	29.71 QP	40.00	-10.29	1.00 V	47	53.02	-23.31
3	106.17	32.57 QP	43.50	-10.93	1.00 V	122	50.13	-17.56
4	138.81	21.16 QP	43.50	-22.34	1.00 V	208	37.00	-15.84
5	376.65	18.53 QP	46.00	-27.47	1.00 V	242	28.55	-10.02
6	550.75	23.88 QP	46.00	-22.12	1.00 V	301	29.31	-5.43

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.



Band 1 (5150-5250MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5082.00	48.22 PK	74.00	-25.78	1.00 H	267	42.51	5.71
2	5082.00	34.65 AV	54.00	-19.35	1.00 H	267	28.94	5.71
3	5150.00	46.97 PK	74.00	-27.03	1.00 H	267	41.14	5.83
4	5150.00	35.15 AV	54.00	-18.85	1.00 H	267	29.32	5.83
5	*5180.00	105.47 PK			1.00 H	267	99.59	5.88
6	*5180.00	94.63 AV			1.00 H	267	88.75	5.88
7	#10360.00	54.87 PK	68.20	-13.33	1.00 H	0	40.67	14.20
8	15540.00	61.38 PK	74.00	-12.62	1.00 H	0	40.40	20.98
9	15540.00	48.09 AV	54.00	-5.91	1.00 H	0	27.11	20.98
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4833.00	46.62 PK	74.00	-27.38	1.00 V	272	41.31	5.31
2	4833.00	34.31 AV	54.00	-19.69	1.00 V	272	29.00	5.31
3	5150.00	46.20 PK	74.00	-27.80	1.00 V	272	40.37	5.83
4	5150.00	34.74 AV	54.00	-19.26	1.00 V	272	28.91	5.83
5	*5180.00	105.34 PK			1.00 V	272	97.46	5.88
6	*5180.00	93.15 AV			1.00 V	272	87.27	5.88
7	#10360.00	54.24 PK	68.20	-13.96	1.00 V	0	40.04	14.20
8	15540.00	61.23 PK	74.00	-12.77	1.00 V	0	40.25	20.98
9	15540.00	48.09 AV	54.00	-5.91	1.00 V	0	27.11	20.98

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5005.00	48.52 PK	74.00	-25.48	1.00 H	77	42.95	5.57
2	5005.00	34.50 AV	54.00	-19.50	1.00 H	77	28.93	5.57
3	5150.00	46.93 PK	74.00	-27.07	1.00 H	77	41.10	5.83
4	5150.00	35.12 AV	54.00	-18.88	1.00 H	77	29.29	5.83
5	*5200.00	105.90 PK			1.00 H	77	99.98	5.92
6	*5200.00	94.08 AV			1.00 H	77	88.16	5.92
7	#10400.00	55.71 PK	68.20	-12.49	1.00 H	0	41.42	14.29
8	15600.00	61.33 PK	74.00	-12.67	1.00 H	0	40.22	21.11
9	15600.00	48.14 AV	54.00	-5.86	1.00 H	0	27.03	21.11
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5070.00	46.78 PK	74.00	-27.22	1.00 V	0	41.09	5.69
2	5070.00	34.26 AV	54.00	-19.74	1.00 V	0	28.57	5.69
3	5150.00	46.60 PK	74.00	-27.40	1.00 V	0	40.77	5.83
4	5150.00	34.44 AV	54.00	-19.56	1.00 V	0	28.61	5.83
5	*5200.00	103.00 PK			1.00 V	0	97.08	5.92
6	*5200.00	93.64 AV			1.00 V	0	87.72	5.92
7	#10400.00	54.86 PK	68.20	-13.34	1.00 V	0	40.57	14.29
8	15600.00	61.42 PK	74.00	-12.58	1.00 V	0	40.31	21.11
9	15600.00	48.12 AV	54.00	-5.88	1.00 V	0	27.01	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5084.00	48.33 PK	74.00	-25.67	1.00 H	82	42.62	5.71
2	5084.00	35.64 AV	54.00	-18.36	1.00 H	82	29.93	5.71
3	5150.00	46.27 PK	74.00	-27.73	1.00 H	82	40.44	5.83
4	5150.00	34.84 AV	54.00	-19.16	1.00 H	82	29.01	5.83
5	*5240.00	105.84 PK			1.00 H	82	99.84	6
6	*5240.00	94.81 AV			1.00 H	82	88.81	6
7	5350.00	48.23 PK	74.00	-25.77	1.00 H	82	42.03	6.20
8	5350.00	35.79 AV	54.00	-18.21	1.00 H	82	29.59	6.20
9	5390.00	47.90 PK	74.00	-26.10	1.00 H	82	41.63	6.27
10	5390.00	35.54 AV	54.00	-18.46	1.00 H	82	29.27	6.27
11	#10480.00	56.18 PK	68.20	-12.02	1.00 H	0	41.73	14.45
12	15720.00	62.03 PK	74.00	-11.97	1.00 H	0	40.66	21.37
13	15720.00	49.17 AV	54.00	-4.83	1.00 H	0	27.80	21.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5117.00	48.07 PK	74.00	-25.93	1.00 V	269	42.30	5.77
2	5117.00	34.37 AV	54.00	-19.63	1.00 V	269	28.60	5.77
3	5150.00	46.07 PK	74.00	-27.93	1.00 V	269	40.24	5.83
4	5150.00	34.42 AV	54.00	-19.58	1.00 V	269	28.59	5.83
5	*5240.00	103.14 PK			1.00 V	269	97.14	6
6	*5240.00	93.26 AV			1.00 V	269	87.26	6
7	5350.00	48.67 PK	74.00	-25.33	1.00 V	269	42.47	6.20
8	5350.00	36.37 AV	54.00	-17.63	1.00 V	269	30.17	6.20
9	5370.00	48.53 PK	74.00	-25.47	1.00 V	269	42.30	6.23
10	5370.00	36.32 AV	54.00	-17.68	1.00 V	269	30.09	6.23
11	#10480.00	54.82 PK	68.20	-13.38	1.00 V	0	40.37	14.45
12	15720.00	61.66 PK	74.00	-12.34	1.00 V	0	40.29	21.37
13	15720.00	48.56 AV	54.00	-5.44	1.00 V	0	27.19	21.37

REMARKS:

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

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5133.00	47.18 PK	74.00	-26.82	1.00 H	360	41.38	5.80
2	5133.00	35.35 AV	54.00	-18.65	1.00 H	360	29.55	5.80
3	5150.00	47.60 PK	74.00	-26.40	1.00 H	360	41.77	5.83
4	5150.00	35.36 AV	54.00	-18.64	1.00 H	360	29.53	5.83
5	*5180.00	105.48 PK			1.00 H	360	99.6	5.88
6	*5180.00	94.24 AV			1.00 H	360	88.36	5.88
7	#10360.00	56.11 PK	68.20	-12.09	1.00 H	0	41.91	14.20
8	15540.00	61.29 PK	74.00	-12.71	1.00 H	0	40.31	20.98
9	15540.00	47.83 AV	54.00	-6.17	1.00 H	0	26.85	20.98
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5100.00	47.15 PK	74.00	-26.85	1.00 V	37	41.40	5.75
2	5100.00	34.44 AV	54.00	-19.56	1.00 V	37	28.69	5.75
3	5150.00	45.79 PK	74.00	-28.21	1.00 V	37	39.96	5.83
4	5150.00	34.67 AV	54.00	-19.33	1.00 V	37	28.84	5.83
5	*5180.00	103.19 PK			1.00 V	37	97.31	5.88
6	*5180.00	93.22 AV			1.00 V	37	87.34	5.88
7	#10360.00	54.17 PK	68.20	-14.03	1.00 V	0	39.97	14.20
8	15540.00	61.39 PK	74.00	-12.61	1.00 V	0	40.41	20.98
9	15540.00	48.48 AV	54.00	-5.52	1.00 V	0	27.50	20.98

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5120.00	47.78 PK	74.00	-26.22	1.00 H	77	42.00	5.78
2	5120.00	35.01 AV	54.00	-18.99	1.00 H	77	29.23	5.78
3	5150.00	47.88 PK	74.00	-26.12	1.00 H	77	42.05	5.83
4	5150.00	35.10 AV	54.00	-18.90	1.00 H	77	29.27	5.83
5	*5200.00	105.89 PK			1.00 H	77	99.97	5.92
6	*5200.00	94.75 AV			1.00 H	77	88.83	5.92
7	#10400.00	55.51 PK	68.20	-12.69	1.00 H	0	41.22	14.29
8	15600.00	61.29 PK	74.00	-12.71	1.00 H	0	40.18	21.11
9	15600.00	48.23 AV	54.00	-5.77	1.00 H	0	27.12	21.11
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.00	48.96 PK	74.00	-25.04	1.00 V	270	43.15	5.81
2	5136.00	34.42 AV	54.00	-19.58	1.00 V	270	28.61	5.81
3	5150.00	46.97 PK	74.00	-27.03	1.00 V	270	41.14	5.83
4	5150.00	34.56 AV	54.00	-19.44	1.00 V	270	28.73	5.83
5	*5200.00	103.83 PK			1.00 V	270	97.91	5.92
6	*5200.00	93.69 AV			1.00 V	270	87.77	5.92
7	#10400.00	54.39 PK	68.20	-13.81	1.00 V	0	40.10	14.29
8	15600.00	61.59 PK	74.00	-12.41	1.00 V	0	40.48	21.11
9	15600.00	48.17 AV	54.00	-5.83	1.00 V	0	27.06	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5132.00	48.56 PK	74.00	-25.44	1.00 H	78	42.76	5.80
2	5132.00	34.87 AV	54.00	-19.13	1.00 H	78	29.07	5.80
3	5150.00	46.07 PK	74.00	-27.93	1.00 H	78	40.24	5.83
4	5150.00	34.43 AV	54.00	-19.57	1.00 H	78	28.60	5.83
5	*5240.00	105.07 PK			1.00 H	78	99.07	6
6	*5240.00	94.78 AV			1.00 H	78	88.78	6
7	5350.00	46.82 PK	74.00	-27.18	1.00 H	78	40.62	6.20
8	5350.00	35.68 AV	54.00	-18.32	1.00 H	78	29.48	6.20
9	5372.00	49.51 PK	74.00	-24.49	1.00 H	78	43.28	6.23
10	5372.00	35.53 AV	54.00	-18.47	1.00 H	78	29.30	6.23
11	#10480.00	55.09 PK	68.20	-13.11	1.00 H	0	40.64	14.45
12	15720.00	62.22 PK	74.00	-11.78	1.00 H	0	40.85	21.37
13	15720.00	49.17 AV	54.00	-4.83	1.00 H	0	27.80	21.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5108.00	45.80 PK	74.00	-28.20	1.00 V	229	40.04	5.76
2	5108.00	34.10 AV	54.00	-19.90	1.00 V	229	28.34	5.76
3	5150.00	45.08 PK	74.00	-28.92	1.00 V	229	39.25	5.83
4	5150.00	34.12 AV	54.00	-19.88	1.00 V	229	28.29	5.83
5	*5240.00	103.08 PK			1.00 V	229	97.08	6.00
6	*5240.00	93.01 AV			1.00 V	229	87.01	6.00
7	5350.00	47.47 PK	74.00	-26.53	1.00 V	229	41.27	6.20
8	5350.00	36.13 AV	54.00	-17.87	1.00 V	229	29.93	6.20
9	5361.00	49.20 PK	74.00	-24.80	1.00 V	229	42.98	6.22
10	5361.00	36.16 AV	54.00	-17.84	1.00 V	229	29.94	6.22
11	#10480.00	54.77 PK	68.20	-13.43	1.00 V	0	40.32	14.45
12	15720.00	61.98 PK	74.00	-12.02	1.00 V	0	40.61	21.37
13	15720.00	49.25 AV	54.00	-4.75	1.00 V	0	27.88	21.37

REMARKS:

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

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5132.00	47.74 PK	74.00	-26.26	1.00 H	268	41.94	5.80
2	5132.00	35.14 AV	54.00	-18.86	1.00 H	268	29.34	5.80
3	5150.00	51.55 PK	74.00	-22.45	1.00 H	268	45.72	5.83
4	5150.00	38.27 AV	54.00	-15.73	1.00 H	268	32.44	5.83
5	*5190.00	104.40 PK			1.00 H	268	98.49	5.91
6	*5190.00	93.34 AV			1.00 H	268	87.43	5.91
7	#10380.00	56.12 PK	68.20	-12.08	1.00 H	0	41.87	14.25
8	15570.00	62.33 PK	74.00	-11.67	1.00 H	0	41.29	21.04
9	15570.00	48.77 AV	54.00	-5.23	1.00 H	0	27.73	21.04
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	5141.00	47.44 PK	74.00	-26.56	1.00 V	36	41.62	5.82
2	5141.00	34.63 AV	54.00	-19.37	1.00 V	36	28.81	5.82
3	5150.00	50.09 PK	74.00	-23.91	1.00 V	36	44.26	5.83
4	5150.00	36.76 AV	54.00	-17.24	1.00 V	36	30.93	5.83
5	*5190.00	102.47 PK			1.00 V	36	96.56	5.91
6	*5190.00	91.39 AV			1.00 V	36	85.48	5.91
7	#10380.00	55.12 PK	68.20	-13.08	1.00 V	0	40.87	14.25
8	15570.00	61.51 PK	74.00	-12.49	1.00 V	0	40.47	21.04
9	15570.00	48.60 AV	54.00	-5.40	1.00 V	0	27.56	21.04

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5126.00	48.82 PK	74.00	-25.18	1.00 H	19	43.03	5.79
2	5126.00	34.76 AV	54.00	-19.24	1.00 H	19	28.97	5.79
3	5150.00	46.86 PK	74.00	-27.14	1.00 H	19	41.03	5.83
4	5150.00	34.53 AV	54.00	-19.47	1.00 H	19	28.70	5.83
5	*5230.00	103.87 PK			1.00 H	19	97.89	5.98
6	*5230.00	92.86 AV			1.00 H	19	86.88	5.98
7	#10460.00	56.18 PK	68.20	-12.02	1.00 H	0	41.77	14.41
8	15690.00	61.42 PK	74.00	-12.58	1.00 H	0	40.12	21.30
9	15690.00	48.62 AV	54.00	-5.38	1.00 H	0	27.32	21.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5123.00	46.43 PK	74.00	-27.57	1.00 V	200	40.65	5.78
2	5123.00	35.13 AV	54.00	-18.87	1.00 V	200	29.35	5.78
3	5150.00	46.79 PK	74.00	-27.21	1.00 V	200	40.96	5.83
4	5150.00	35.23 AV	54.00	-18.77	1.00 V	200	29.40	5.83
5	*5230.00	101.82 PK			1.00 V	200	95.84	5.98
6	*5230.00	90.92 AV			1.00 V	200	84.94	5.98
7	#10460.00	55.24 PK	68.20	-12.96	1.00 V	0	40.83	14.41
8	15690.00	61.21 PK	74.00	-12.79	1.00 V	0	39.91	21.30
9	15690.00	49.05 AV	54.00	-4.95	1.00 V	0	27.75	21.30

REMARKS:

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

802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	54.80 PK	74.00	-19.20	1.00 H	271	48.99	5.81
2	5140.00	36.90 AV	54.00	-17.10	1.00 H	271	31.09	5.81
3	5150.00	52.40 PK	74.00	-21.60	1.00 H	271	46.57	5.83
4	5150.00	37.42 AV	54.00	-16.58	1.00 H	271	31.59	5.83
5	*5210.00	95.16 PK			1.00 H	271	89.21	5.95
6	*5210.00	82.30 AV			1.00 H	271	76.35	5.95
7	#10420.00	56.29 PK	68.20	-11.91	1.00 H	0	41.96	14.33
8	15630.00	62.25 PK	74.00	-11.75	1.00 H	0	41.08	21.17
9	15630.00	48.81 AV	54.00	-5.19	1.00 H	0	27.64	21.17
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.00	52.17 PK	74.00	-21.83	1.00 V	200	46.36	5.81
2	5140.00	35.50 AV	54.00	-18.50	1.00 V	200	29.69	5.81
3	5150.00	48.41 PK	74.00	-25.59	1.00 V	200	42.58	5.83
4	5150.00	36.16 AV	54.00	-17.84	1.00 V	200	30.33	5.83
5	*5210.00	95.51 PK			1.00 V	200	89.56	5.95
6	*5210.00	82.68 AV			1.00 V	200	76.73	5.95
7	#10420.00	54.17 PK	68.20	-14.03	1.00 V	0	39.84	14.33
8	15630.00	61.09 PK	74.00	-12.91	1.00 V	0	39.92	21.17
9	15630.00	48.12 AV	54.00	-5.88	1.00 V	0	26.95	21.17

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
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 FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5079.00	46.27 PK	74.00	-27.73	1.00 H	78	40.56	5.71
2	5079.00	34.87 AV	54.00	-19.13	1.00 H	78	29.16	5.71
3	5150.00	46.16 PK	74.00	-27.84	1.00 H	78	40.33	5.83
4	5150.00	34.49 AV	54.00	-19.51	1.00 H	78	28.66	5.83
5	*5260.00	105.22 PK			1.00 H	78	99.19	6.03
6	*5260.00	94.29 AV			1.00 H	78	88.26	6.03
7	5350.00	47.24 PK	74.00	-26.76	1.00 H	78	41.04	6.20
8	5350.00	35.56 AV	54.00	-18.44	1.00 H	78	29.36	6.20
11	#10520.00	55.92 PK	68.20	-12.28	1.00 H	0	41.40	14.52
12	15780.00	61.75 PK	74.00	-12.25	1.00 H	0	40.25	21.50
13	15780.00	48.22 AV	54.00	-5.78	1.00 H	0	26.72	21.50
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	5121.00	47.20 PK	74.00	-26.80	1.00 V	10	41.42	5.78
2	5121.00	34.07 AV	54.00	-19.93	1.00 V	10	28.29	5.78
3	5150.00	46.20 PK	74.00	-27.80	1.00 V	10	40.37	5.83
4	5150.00	34.27 AV	54.00	-19.73	1.00 V	10	28.44	5.83
5	*5260.00	103.41 PK			1.00 V	10	97.38	6.03
6	*5260.00	91.17 AV			1.00 V	10	85.14	6.03
7	5350.00	46.80 PK	74.00	-27.20	1.00 V	10	40.60	6.20
8	5350.00	36.06 AV	54.00	-17.94	1.00 V	10	29.86	6.20
11	#10520.00	56.12 PK	68.20	-12.08	1.00 V	0	41.60	14.52
12	15780.00	62.84 PK	74.00	-11.16	1.00 V	0	41.34	21.50
13	15780.00	49.17 AV	54.00	-4.83	1.00 V	0	27.67	21.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	105.93 PK			1.00 H	30	99.82	6.11
2	*5300.00	94.26 AV			1.00 H	30	88.15	6.11
3	5350.00	48.65 PK	74.00	-25.35	1.00 H	30	42.45	6.20
4	5350.00	34.62 AV	54.00	-19.38	1.00 H	30	28.42	6.20
5	5413.00	48.48 PK	74.00	-25.52	1.00 H	30	42.17	6.31
6	5413.00	34.26 AV	54.00	-19.74	1.00 H	30	27.95	6.31
7	10600.00	56.71 PK	74.00	-17.29	1.00 H	0	42.07	14.64
8	10600.00	42.26 AV	54.00	-11.74	1.00 H	0	27.62	14.64
9	15900.00	61.63 PK	74.00	-12.37	1.00 H	0	39.87	21.76
10	15900.00	48.71 AV	54.00	-5.29	1.00 H	0	26.95	21.76
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	103.68 PK			1.00 V	360	97.57	6.11
2	*5300.00	91.25 AV			1.00 V	360	85.14	6.11
3	5350.00	48.92 PK	74.00	-25.08	1.00 V	360	42.72	6.20
4	5350.00	35.46 AV	54.00	-18.54	1.00 V	360	29.26	6.20
5	5367.00	48.26 PK	74.00	-25.74	1.00 V	360	42.03	6.23
6	5367.00	35.55 AV	54.00	-18.45	1.00 V	360	29.32	6.23
7	10600.00	55.69 PK	74.00	-18.31	1.00 V	0	41.05	14.64
8	10600.00	43.47 AV	54.00	-10.53	1.00 V	0	28.83	14.64
9	15900.00	63.58 PK	74.00	-10.42	1.00 V	0	41.82	21.76
10	15900.00	49.24 AV	54.00	-4.76	1.00 V	0	27.48	21.76

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.18 PK			1.00 H	284	99.03	6.15
2	*5320.00	94.64 AV			1.00 H	284	88.49	6.15
3	5350.00	49.19 PK	74.00	-24.81	1.00 H	284	42.99	6.20
4	5350.00	34.28 AV	54.00	-19.72	1.00 H	284	28.08	6.20
5	5457.00	49.24 PK	74.00	-24.76	1.00 H	284	42.85	6.39
6	5457.00	33.88 AV	54.00	-20.12	1.00 H	284	27.49	6.39
7	10640.00	56.12 PK	74.00	-17.88	1.00 H	0	41.42	14.70
8	10640.00	42.18 AV	54.00	-11.82	1.00 H	0	27.48	14.70
9	15960.00	63.14 PK	74.00	-10.86	1.00 H	0	41.25	21.89
10	15960.00	49.81 AV	54.00	-4.19	1.00 H	0	27.92	21.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.09 PK			1.00 V	215	96.94	6.15
2	*5320.00	91.56 AV			1.00 V	215	85.41	6.15
3	5350.00	48.90 PK	74.00	-25.10	1.00 V	215	42.70	6.20
4	5350.00	35.12 AV	54.00	-18.88	1.00 V	215	28.92	6.20
5	5406.00	49.55 PK	74.00	-24.45	1.00 V	215	43.25	6.30
6	5406.00	34.76 AV	54.00	-19.24	1.00 V	215	28.46	6.30
7	10640.00	55.01 PK	74.00	-18.99	1.00 V	0	40.31	14.70
8	10640.00	42.75 AV	54.00	-11.25	1.00 V	0	28.05	14.70
9	15960.00	61.83 PK	74.00	-12.17	1.00 V	0	39.94	21.89
10	15960.00	48.44 AV	54.00	-5.56	1.00 V	0	26.55	21.89

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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



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Test Report No.: RF190820N012-4

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5012.00	46.81 PK	74.00	-27.19	1.00 H	162	41.23	5.58
2	5012.00	33.69 AV	54.00	-20.31	1.00 H	162	28.11	5.58
3	5150.00	48.02 PK	74.00	-25.98	1.00 H	162	42.19	5.83
4	5150.00	34.33 AV	54.00	-19.67	1.00 H	162	28.50	5.83
5	*5260.00	105.25 PK			1.00 H	162	99.22	6.03
6	*5260.00	93.11 AV			1.00 H	162	87.08	6.03
7	5350.00	47.84 PK	74.00	-26.16	1.00 H	162	41.64	6.20
8	5350.00	34.62 AV	54.00	-19.38	1.00 H	162	28.42	6.20
9	5395.00	49.80 PK	74.00	-24.20	1.00 H	162	43.52	6.28
10	5395.00	35.10 AV	54.00	-18.90	1.00 H	162	28.82	6.28
11	#10520.00	56.31 PK	68.20	-11.89	1.00 H	0	41.79	14.52
12	15780.00	62.19 PK	74.00	-11.81	1.00 H	0	40.69	21.50
13	15780.00	48.63 AV	54.00	-5.37	1.00 H	0	27.13	21.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.68 PK	74.00	-26.32	1.00 V	175	41.85	5.83
2	5150.00	33.59 AV	54.00	-20.41	1.00 V	175	27.76	5.83
3	#5203.00	48.94 PK	68.20	-19.26	1.00 V	175	43.01	5.93
4	#5203.00	33.92 AV	54.00	-20.08	1.00 V	175	27.99	5.93
5	*5260.00	102.90 PK			1.00 V	175	96.87	6.03
6	*5260.00	90.06 AV			1.00 V	175	84.03	6.03
7	5350.00	48.38 PK	74.00	-25.62	1.00 V	175	42.18	6.20
8	5350.00	34.55 AV	54.00	-19.45	1.00 V	175	28.35	6.20
9	5412.00	49.11 PK	74.00	-24.89	1.00 V	175	42.80	6.31
10	5412.00	34.62 AV	54.00	-19.38	1.00 V	175	28.31	6.31
11	#10520.00	54.93 PK	68.20	-13.27	1.00 V	0	40.41	14.52
12	15780.00	61.88 PK	74.00	-12.12	1.00 V	0	40.38	21.50
13	15780.00	48.47 AV	54.00	-5.53	1.00 V	0	26.97	21.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	105.71 PK			1.00 H	210	99.6	6.11
2	*5300.00	93.03 AV			1.00 H	210	86.92	6.11
3	5350.00	49.14 PK	74.00	-24.86	1.00 H	166	42.94	6.20
4	5350.00	34.39 AV	54.00	-19.61	1.00 H	166	28.19	6.20
5	5363.00	49.11 PK	74.00	-24.89	1.00 H	166	42.89	6.22
6	5363.00	34.22 AV	54.00	-19.78	1.00 H	166	28.00	6.22
7	10600.00	56.09 PK	74.00	-17.91	1.00 H	0	41.45	14.64
8	10600.00	42.16 AV	54.00	-11.84	1.00 H	0	27.52	14.64
9	15900.00	62.82 PK	74.00	-11.18	1.00 H	0	41.06	21.76
10	15900.00	48.56 AV	54.00	-5.44	1.00 H	0	26.80	21.76
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	102.76 PK			1.00 V	166	96.65	6.11
2	*5300.00	90.78 AV			1.00 V	166	84.67	6.11
3	5350.00	49.54 PK	74.00	-24.46	1.00 V	166	43.34	6.20
4	5350.00	35.29 AV	54.00	-18.71	1.00 V	166	29.09	6.20
5	5355.00	49.13 PK	74.00	-24.87	1.00 V	166	42.92	6.21
6	5355.00	35.44 AV	54.00	-18.56	1.00 V	166	29.23	6.21
7	10600.00	56.22 PK	74.00	-17.78	1.00 V	0	41.58	14.64
8	10600.00	43.17 AV	54.00	-10.83	1.00 V	0	28.53	14.64
9	15900.00	62.31 PK	74.00	-11.69	1.00 V	0	40.55	21.76
10	15900.00	48.52 AV	54.00	-5.48	1.00 V	0	26.76	21.76

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.43 PK			1.00 H	281	99.28	6.15
2	*5320.00	93.64 AV			1.00 H	281	87.49	6.15
3	5350.00	48.64 PK	74.00	-25.36	1.00 H	281	42.44	6.20
4	5350.00	35.03 AV	54.00	-18.97	1.00 H	281	28.83	6.20
5	5361.00	49.84 PK	74.00	-24.16	1.00 H	281	43.62	6.22
6	5361.00	34.66 AV	54.00	-19.34	1.00 H	281	28.44	6.22
7	10640.00	55.99 PK	74.00	-18.01	1.00 H	0	41.29	14.70
8	10640.00	41.76 AV	54.00	-12.24	1.00 H	0	27.06	14.70
9	15960.00	61.57 PK	74.00	-12.43	1.00 H	0	39.68	21.89
10	15960.00	48.55 AV	54.00	-5.45	1.00 H	0	26.66	21.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	102.86 PK			1.00 V	174	96.71	6.15
2	*5320.00	90.57 AV			1.00 V	174	84.42	6.15
3	5350.00	49.11 PK	74.00	-24.89	1.00 V	174	42.91	6.20
4	5350.00	35.86 AV	54.00	-18.14	1.00 V	174	29.66	6.20
5	5393.00	49.50 PK	74.00	-24.50	1.00 V	174	43.23	6.27
6	5393.00	35.89 AV	54.00	-18.11	1.00 V	174	29.62	6.27
7	10640.00	55.28 PK	74.00	-18.72	1.00 V	0	40.58	14.70
8	10640.00	42.79 AV	54.00	-11.21	1.00 V	0	28.09	14.70
9	15960.00	62.83 PK	74.00	-11.17	1.00 V	0	40.94	21.89
10	15960.00	49.58 AV	54.00	-4.42	1.00 V	0	27.69	21.89

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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	103.58 PK			1.00 H	110	97.53	6.05
2	*5270.00	90.03 AV			1.00 H	110	83.98	6.05
3	5350.00	47.95 PK	74.00	-26.05	1.00 H	110	41.75	6.20
4	5350.00	33.69 AV	54.00	-20.31	1.00 H	110	27.49	6.20
5	5366.00	48.46 PK	74.00	-25.54	1.00 H	110	42.24	6.22
6	5366.00	34.07 AV	54.00	-19.93	1.00 H	110	27.85	6.22
7	#10540.00	56.28 PK	68.20	-11.92	1.00 H	0	41.73	14.55
8	15810.00	62.33 PK	74.00	-11.67	1.00 H	0	40.76	21.57
9	15810.00	49.17 AV	54.00	-4.83	1.00 H	0	27.60	21.57
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	98.06 PK			1.00 V	135	92.01	6.05
2	*5270.00	89.02 AV			1.00 V	135	82.97	6.05
3	5350.00	49.32 PK	74.00	-24.68	1.00 V	135	43.12	6.20
4	5350.00	34.88 AV	54.00	-19.12	1.00 V	135	28.68	6.20
5	5367.00	49.10 PK	74.00	-24.90	1.00 V	135	42.87	6.23
6	5367.00	34.80 AV	54.00	-19.20	1.00 V	135	28.57	6.23
7	#10540.00	54.17 PK	68.20	-14.03	1.00 V	0	39.62	14.55
8	15810.00	62.33 PK	74.00	-11.67	1.00 V	0	40.76	21.57
9	15810.00	48.77 AV	54.00	-5.23	1.00 V	0	27.20	21.57

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	103.85 PK			1.00 H	50	97.46	6.12
2	*5310.00	90.87 AV			1.00 H	50	84.75	6.12
3	5350.00	49.37 PK	74.00	-24.63	1.00 H	50	43.17	6.20
4	5350.00	33.85 AV	54.00	-20.15	1.00 H	50	27.65	6.20
5	5385.00	51.07 PK	74.00	-22.93	1.00 H	50	44.81	6.26
6	5385.00	34.26 AV	54.00	-19.74	1.00 H	50	28.00	6.26
7	10620.00	56.14 PK	74.00	-17.86	1.00 H	0	41.47	14.67
8	10620.00	42.96 AV	54.00	-11.04	1.00 H	0	28.29	14.67
9	15930.00	62.33 PK	74.00	-11.67	1.00 H	0	40.50	21.83
10	15930.00	48.56 AV	54.00	-5.44	1.00 H	0	26.73	21.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	98.79 PK			1.00 V	80	92.67	6.12
2	*5310.00	89.42 AV			1.00 V	80	83.3	6.12
3	5350.00	51.66 PK	74.00	-22.34	1.00 V	80	45.46	6.20
4	5350.00	36.74 AV	54.00	-17.26	1.00 V	80	30.54	6.20
5	5377.00	48.55 PK	74.00	-25.45	1.00 V	80	42.30	6.25
6	5377.00	33.17 AV	54.00	-20.83	1.00 V	80	26.92	6.25
7	10620.00	54.82 PK	74.00	-19.18	1.00 V	0	40.15	14.67
8	10620.00	42.96 AV	54.00	-11.04	1.00 V	0	28.29	14.67
9	15930.00	61.63 PK	74.00	-12.37	1.00 V	0	39.80	21.83
10	15930.00	48.47 AV	54.00	-5.53	1.00 V	0	26.64	21.83

REMARKS:

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

802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	94.85 PK			1.00 H	260	88.77	6.08
2	*5290.00	82.47 AV			1.00 H	260	76.39	6.08
3	5350.00	49.21 PK	74.00	-24.79	1.00 H	260	43.01	6.20
4	5350.00	35.82 AV	54.00	-18.18	1.00 H	260	29.62	6.20
5	5359.00	51.09 PK	74.00	-22.91	1.00 H	260	44.88	6.21
6	5359.00	35.86 AV	54.00	-18.14	1.00 H	260	29.65	6.21
7	#10580.00	56.25 PK	68.20	-11.95	1.00 H	0	41.63	14.62
8	15870.00	62.38 PK	74.00	-11.62	1.00 H	0	40.68	21.70
9	15870.00	49.09 AV	54.00	-4.91	1.00 H	0	27.39	21.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	95.53 PK			1.00 V	233	89.45	6.08
2	*5290.00	82.62 AV			1.00 V	233	76.54	6.08
3	5350.00	55.17 PK	74.00	-18.83	1.00 V	233	48.97	6.20
4	5350.00	38.38 AV	54.00	-15.62	1.00 V	233	32.18	6.20
5	5355.00	54.51 PK	74.00	-19.49	1.00 V	233	48.30	6.21
6	5355.00	37.79 AV	54.00	-16.21	1.00 V	233	31.58	6.21
7	#10580.00	55.81 PK	68.20	-12.39	1.00 V	0	41.19	14.62
8	15870.00	62.31 PK	74.00	-11.69	1.00 V	0	40.61	21.70
9	15870.00	48.49 AV	54.00	-5.51	1.00 V	0	26.79	21.70

REMARKS:

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

Band 3 (5470-5725MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.32 PK	68.20	-16.88	1.00 H	77	44.90	6.42
2	*5500.00	105.17 PK			1.00 H	77	98.7	6.47
3	*5500.00	93.54 AV			1.00 H	77	87.07	6.47
4	11000.00	56.28 PK	74.00	-17.72	1.00 H	0	41.03	15.25
5	11000.00	42.25 AV	54.00	-11.75	1.00 H	0	27.00	15.25
6	#16500.00	62.09 PK	68.20	-6.11	1.00 H	0	39.68	22.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.70 PK	68.20	-13.50	1.00 V	360	48.28	6.42
2	*5500.00	102.29 PK			1.00 V	360	95.82	6.47
3	*5500.00	89.29 AV			1.00 V	360	82.82	6.47
4	11000.00	54.68 PK	74.00	-19.32	1.00 V	0	39.43	15.25
5	11000.00	42.81 AV	54.00	-11.19	1.00 V	0	27.56	15.25
6	#16500.00	61.77 PK	68.20	-6.43	1.00 V	0	39.36	22.41

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.17 PK	68.20	-20.03	1.00 H	163	41.75	6.42
2	*5580.00	105.12 PK			1.00 H	163	98.48	6.64
3	*5580.00	93.69 AV			1.00 H	163	87.05	6.64
4	11160.00	56.27 PK	74.00	-17.73	1.00 H	0	40.79	15.48
5	11160.00	41.98 AV	54.00	-12.02	1.00 H	0	26.50	15.48
6	#16740.00	61.94 PK	68.20	-6.26	1.00 H	0	38.81	23.13
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.55 PK	68.20	-19.65	1.00 V	112	42.13	6.42
2	*5580.00	102.88 PK			1.00 V	112	96.24	6.64
3	*5580.00	89.32 AV			1.00 V	112	82.68	6.64
4	11160.00	55.32 PK	74.00	-18.68	1.00 V	0	39.84	15.48
5	11160.00	43.16 AV	54.00	-10.84	1.00 V	0	27.68	15.48
6	#16470.00	62.15 PK	68.20	-6.05	1.00 V	0	39.77	22.38

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	105.05 PK			1.00 H	350	98.16	6.89
2	*5700.00	93.14 AV			1.00 H	350	86.25	6.89
3	#5725.00	48.46 PK	68.20	-19.74	1.00 H	350	41.52	6.94
4	11400.00	55.48 PK	74.00	-18.52	1.00 H	0	39.65	15.83
5	11400.00	41.23 AV	54.00	-12.77	1.00 H	0	25.40	15.83
6	#17100.00	61.32 PK	68.20	-6.88	1.00 H	0	37.33	23.99
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.28 PK			1.00 V	99	95.39	6.89
2	*5700.00	89.73 AV			1.00 V	99	82.84	6.89
3	#5725.00	49.38 PK	68.20	-18.82	1.00 V	99	42.44	6.94
4	11400.00	54.56 PK	74.00	-19.44	1.00 V	0	38.73	15.83
5	11400.00	42.76 AV	54.00	-11.24	1.00 V	0	26.93	15.83
6	#17100.00	61.49 PK	68.20	-6.71	1.00 V	0	37.50	23.99

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

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5500.00	104.84 PK			1.00 H	90	98.37	6.47
2	*5500.00	93.47 AV			1.00 H	90	87	6.47
3	#5740.00	51.25 PK	68.20	-16.95	1.00 H	90	44.27	6.98
4	11000.00	57.82 PK	74.00	-16.18	1.00 H	0	42.57	15.25
5	11000.00	43.61 AV	54.00	-10.39	1.00 H	0	28.36	15.25
6	#16500.00	63.38 PK	68.20	-4.82	1.00 H	0	40.97	22.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.29 PK	68.20	-10.91	1.00 V	238	50.87	6.42
2	*5500.00	102.29 PK			1.00 V	238	95.82	6.47
3	*5500.00	89.90 AV			1.00 V	238	83.43	6.47
4	11000.00	56.21 PK	74.00	-17.79	1.00 V	0	40.96	15.25
5	11000.00	44.53 AV	54.00	-9.47	1.00 V	0	29.28	15.25
6	#16500.00	63.23 PK	68.20	-4.97	1.00 V	0	40.82	22.41

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.30 PK	68.20	-19.90	1.00 H	52	41.88	6.42
2	#5800.00	104.17 PK			1.00 H	52	97.07	7.10
3	#5800.00	93.51 AV			1.00 H	52	86.41	7.10
4	11160.00	56.14 PK	74.00	-17.86	1.00 H	0	40.66	15.48
5	11160.00	41.88 AV	54.00	-12.12	1.00 H	0	26.40	15.48
6	#16740.00	62.19 PK	68.20	-6.01	1.00 H	0	39.06	23.13
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.51 PK	68.20	-18.69	1.00 V	235	43.09	6.42
2	*5580.00	102.76 PK			1.00 V	235	95.66	6.64
3	*5580.00	89.15 AV			1.00 V	235	82.05	6.64
4	11160.00	55.47 PK	74.00	-18.53	1.00 V	0	39.99	15.48
5	11160.00	42.96 AV	54.00	-11.04	1.00 V	0	27.48	15.48
6	#16740.00	62.74 PK	68.20	-5.46	1.00 V	0	39.61	23.13

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.12 PK			1.00 H	312	97.23	6.89
2	*5700.00	93.76 AV			1.00 H	312	86.87	6.89
3	#5725.00	48.80 PK	68.20	-19.40	1.00 H	312	41.86	6.94
4	11400.00	57.21 PK	74.00	-16.79	1.00 H	0	41.38	15.83
5	11400.00	42.41 AV	54.00	-11.59	1.00 H	0	26.58	15.83
6	#17100.00	62.26 PK	68.20	-5.94	1.00 H	0	38.27	23.99
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.39 PK			1.00 V	56	95.5	6.89
2	*5700.00	89.08 AV			1.00 V	56	82.19	6.89
3	#5725.00	50.17 PK	68.20	-18.03	1.00 V	56	43.23	6.94
4	11400.00	56.11 PK	74.00	-17.89	1.00 V	0	40.28	15.83
5	11400.00	43.58 AV	54.00	-10.42	1.00 V	0	27.75	15.83
6	#17100.00	62.11 PK	68.20	-6.09	1.00 V	0	38.12	23.99

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

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	59.79 PK	68.20	-8.41	1.00 H	71	53.37	6.42
2	*5510.00	102.79 PK			1.00 H	71	96.3	6.49
3	*5510.00	90.76 AV			1.00 H	71	84.27	6.49
4	11020.00	56.96 PK	74.00	-17.04	1.00 H	0	41.68	15.28
5	11020.00	43.17 AV	54.00	-10.83	1.00 H	0	27.89	15.28
6	#16530.00	62.47 PK	68.20	-5.73	1.00 H	0	39.97	22.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	64.14 PK	68.20	-4.06	1.00 V	275	57.72	6.42
2	*5510.00	100.98 PK			1.00 V	275	94.49	6.49
3	*5510.00	88.61 AV			1.00 V	275	82.12	6.49
4	11020.00	55.51 PK	74.00	-18.49	1.00 V	0	40.23	15.28
5	11020.00	43.56 AV	54.00	-10.44	1.00 V	0	28.28	15.28
6	#16530.00	62.65 PK	68.20	-5.55	1.00 V	0	40.15	22.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.76 PK	68.20	-18.44	1.00 H	0	43.34	6.42
2	#5500.00	102.81 PK			1.00 H	0	96.34	6.47
3	#5500.00	90.05 AV			1.00 H	0	83.58	6.47
4	11000.00	57.91 PK	74.00	-16.09	1.00 H	0	42.66	15.25
5	11000.00	42.62 AV	54.00	-11.38	1.00 H	0	27.37	15.25
6	#16500.00	62.55 PK	68.20	-5.65	1.00 H	0	40.14	22.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.48 PK	68.20	-17.72	1.00 V	102	44.06	6.42
2	#5500.00	100.01 PK			1.00 V	102	93.54	6.47
3	#5500.00	88.44 AV			1.00 V	102	81.97	6.47
4	11100.00	56.54 PK	74.00	-17.46	1.00 V	0	41.15	15.39
5	11100.00	44.51 AV	54.00	-9.49	1.00 V	0	29.12	15.39
6	#16500.00	62.58 PK	68.20	-5.62	1.00 V	0	40.17	22.41

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	102.93 PK			1.00 H	160	96.1	6.83
2	*5670.00	90.34 AV			1.00 H	160	83.51	6.83
3	#5725.00	49.04 PK	68.20	-19.16	1.00 H	160	42.10	6.94
4	11340.00	56.81 PK	74.00	-17.19	1.00 H	0	41.07	15.74
5	11340.00	42.63 AV	54.00	-11.37	1.00 H	0	26.89	15.74
6	#17010.00	62.41 PK	68.20	-5.79	1.00 H	0	38.49	23.92
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	100.13 PK			1.00 V	102	93.3	6.83
2	*5670.00	88.81 AV			1.00 V	102	81.98	6.83
3	#5725.00	50.15 PK	68.20	-18.05	1.00 V	102	43.21	6.94
4	11340.00	55.15 PK	74.00	-18.85	1.00 V	0	39.41	15.74
5	11340.00	43.19 AV	54.00	-10.81	1.00 V	0	27.45	15.74
6	#17010.00	61.47 PK	68.20	-6.73	1.00 V	0	37.55	23.92

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

802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.75 PK	68.20	-9.45	1.00 H	43	52.33	6.42
2	*5530.00	96.79 PK			1.00 H	43	90.25	6.54
3	*5530.00	83.44 AV			1.00 H	43	76.90	6.54
4	11060.00	56.22 PK	74.00	-17.78	1.00 H	0	40.89	15.33
5	11060.00	43.63 AV	54.00	-10.37	1.00 H	0	28.30	15.33
6	#16590.00	63.14 PK	68.20	-5.06	1.00 H	0	40.46	22.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	63.99 PK	68.20	-4.21	1.00 V	237	57.57	6.42
2	*5530.00	94.55 PK			1.00 V	237	88.01	6.54
3	*5530.00	83.14 AV			1.00 V	237	76.60	6.54
4	11060.00	56.21 PK	74.00	-17.79	1.00 V	0	40.88	15.33
5	11060.00	44.52 AV	54.00	-9.48	1.00 V	0	29.19	15.33
6	#16590.00	63.12 PK	68.20	-5.08	1.00 V	0	40.44	22.68

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	96.50 PK			1.00 H	194	89.8	6.70
2	*5610.00	83.07 AV			1.00 H	194	76.37	6.70
3	#5725.00	47.97 PK	68.20	-20.23	1.00 H	194	41.03	6.94
4	11220.00	57.28 PK	74.00	-16.72	1.00 H	0	41.71	15.57
5	11220.00	43.69 AV	54.00	-10.31	1.00 H	0	28.12	15.57
6	#16830.00	63.48 PK	68.20	-4.72	1.00 H	0	40.08	23.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	93.36 PK			1.00 V	237	86.66	6.70
2	*5610.00	79.95 AV			1.00 V	237	73.25	6.70
3	#5725.00	49.86 PK	68.20	-18.34	1.00 V	237	42.92	6.94
4	11220.00	56.17 PK	74.00	-17.83	1.00 V	0	40.60	15.57
5	11220.00	43.29 AV	54.00	-10.71	1.00 V	0	27.72	15.57
6	#16830.00	62.55 PK	68.20	-5.65	1.00 V	0	39.15	23.40

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

Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 149	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	#5557.21	49.00 PK	68.20	-19.20	1.99 H	67	42.41	6.59
2	#5725.00	48.51 PK	122.20	-73.69	1.00 H	0	41.57	6.94
3	*5745.00	103.45 PK			1.00 H	50	96.47	6.98
4	*5745.00	90.71 AV			1.00 H	50	83.73	6.98
5	#5860.10	50.05 PK	109.37	-59.32	2.00 H	67	42.82	7.23
6	11490.00	56.96 PK	74.00	-17.04	1.00 H	0	41.01	15.95
7	11490.00	44.28 AV	54.00	-9.72	1.00 H	0	28.33	15.95
8	#17235.00	64.12 PK	68.20	-4.08	1.00 H	0	40.03	24.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	54.72 PK	122.20	-67.48	1.00 V	0	47.78	6.94
2	*5745.00	95.95 PK			1.00 V	30	91.97	6.98
3	*5745.00	87.55 AV			1.00 V	30	80.57	6.98
4	#5908.05	49.64 PK	80.71	-31.07	1.00 V	0	42.31	7.33
5	#5929.93	50.01 PK	68.20	-18.19	1.00 V	0	42.64	7.37
6	11490.00	56.18 PK	74.00	-17.82	1.00 V	0	40.23	15.95
7	11490.00	43.92 AV	54.00	-10.08	1.00 V	0	27.97	15.95
8	#17235.00	63.18 PK	68.20	-5.02	1.00 V	0	39.09	24.09

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5563.94	50.08 PK	68.20	-18.12	1.00 H	0	43.48	6.60
2	*5785.00	103.34 PK			1.00 H	60	96.27	7.07
3	*5785.00	90.42 AV			1.00 H	60	83.35	7.07
4	#5941.71	49.00 PK	68.20	-19.20	1.00 H	0	41.61	7.39
5	#5993.87	49.06 PK	68.20	-19.14	1.00 H	0	41.56	7.50
6	11570.00	57.26 PK	74.00	-16.74	1.00 H	0	41.09	16.17
7	11570.00	42.33 AV	54.00	-11.67	1.00 H	0	26.16	16.17
8	#17355.00	63.11 PK	68.20	-5.09	1.00 H	0	38.93	24.18
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	#5597.60	49.07 PK	68.20	-19.13	1.00 V	0	42.39	6.68
2	*5785.00	97.64 PK			1.00 V	58	90.57	7.07
3	*5785.00	85.43 AV			1.00 V	58	78.36	7.07
4	#5929.09	49.16 PK	68.20	-19.04	1.00 V	0	41.79	7.37
5	#5987.14	50.18 PK	68.20	-18.02	1.00 V	0	42.69	7.49
6	11570.00	56.47 PK	74.00	-17.53	1.00 V	0	40.30	16.17
7	11570.00	41.09 AV	54.00	-12.91	1.00 V	0	24.92	16.17
8	#17355.00	62.27 PK	68.20	-5.93	1.00 V	0	38.09	24.18

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5623.68	50.08 PK	68.20	-18.12	1.78 H	67	43.35	6.73
2	*5825.00	102.93 PK			1.00 H	50	95.78	7.15
3	*5825.00	89.17 AV			1.00 H	50	82.02	7.15
4	#5850.00	48.76 PK	122.20	-73.44	1.00 H	0	41.56	7.20
5	#5976.20	48.55 PK	68.20	-19.65	1.78 H	67	41.08	7.47
6	11650.00	56.17 PK	74.00	-17.83	1.00 H	0	39.77	16.40
7	11650.00	42.08 AV	54.00	-11.92	1.00 H	0	25.68	16.40
8	#17475.00	63.22 PK	68.20	-4.98	1.00 H	0	38.95	24.27
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	#5639.66	50.68 PK	68.20	-17.52	1.00 V	0	43.92	6.76
2	*5825.00	97.58 PK			1.00 V	110	90.43	7.15
3	*5825.00	85.83 AV			1.00 V	110	78.68	7.15
4	#5850.00	49.93 PK	122.20	-72.27	1.00 V	0	42.73	7.20
5	#5954.33	50.66 PK	68.20	-17.54	1.00 V	0	43.24	7.42
6	11650.00	54.63 PK	74.00	-19.37	1.00 V	0	38.23	16.40
7	11650.00	42.75 AV	54.00	-11.25	1.00 V	0	26.35	16.40
8	#17475.00	61.55 PK	68.20	-6.65	1.00 V	0	37.28	24.27

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

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5574.04	49.72 PK	68.20	-18.48	1.80 H	74	43.10	6.62
2	#5725.00	50.09 PK	122.20	-72.11	1.00 H	0	43.15	6.94
3	*5745.00	102.15 PK			1.00 H	33	95.17	6.98
4	*5745.00	88.90 AV			1.00 H	33	81.92	6.98
5	#5947.60	49.63 PK	68.20	-18.57	1.80 H	74	42.22	7.41
6	11490.00	56.28 PK	74.00	-17.72	1.00 H	0	40.33	15.95
7	11490.00	42.63 AV	54.00	-11.37	1.00 H	0	26.68	15.95
8	#17235.00	62.08 PK	68.20	-6.12	1.00 H	0	37.99	24.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5547.96	50.87 PK	68.20	-17.33	1.00 V	0	44.30	6.57
2	#5725.00	58.25 PK	122.20	-63.95	1.00 V	0	51.31	6.94
3	*5745.00	98.07 PK			1.00 V	40	91.09	6.98
4	*5745.00	86.48 AV			1.00 V	40	79.50	6.98
5	#5976.20	50.68 PK	68.20	-17.52	1.00 V	0	43.21	7.47
6	11490.00	55.03 PK	74.00	-18.97	1.00 V	0	39.08	15.95
7	11490.00	43.21 AV	54.00	-10.79	1.00 V	0	27.26	15.95
8	#17235.00	62.31 PK	68.20	-5.89	1.00 V	0	38.22	24.09

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5523.56	50.55 PK	68.20	-17.65	1.00 H	0	44.03	6.52
2	#5598.44	50.11 PK	68.20	-18.09	1.00 H	0	43.43	6.68
3	*5785.00	102.64 PK			1.00 H	52	95.57	7.07
4	*5785.00	88.16 AV			1.00 H	52	81.09	7.07
5	#5967.79	50.87 PK	68.20	-17.33	1.00 H	0	43.42	7.45
6	11570.00	55.92 PK	74.00	-18.08	1.00 H	0	39.75	16.17
7	11570.00	42.41 AV	54.00	-11.59	1.00 H	0	26.24	16.17
8	#17355.00	63.47 PK	68.20	-4.73	1.00 H	0	39.29	24.18
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	#5551.32	49.67 PK	68.20	-18.53	1.40 V	208	43.09	6.58
2	#5616.11	49.19 PK	68.20	-19.01	1.40 V	208	42.48	6.71
3	*5785.00	95.15 PK			1.00 V	87	88.08	7.07
4	*5785.00	84.22 AV			1.00 V	87	77.15	7.07
5	#5985.46	48.74 PK	68.20	-19.46	1.40 V	208	41.25	7.49
6	11570.00	56.28 PK	74.00	-17.72	1.00 V	0	40.11	16.17
7	11570.00	43.12 AV	54.00	-10.88	1.00 V	0	26.95	16.17
8	#17355.00	61.59 PK	68.20	-6.61	1.00 V	0	37.41	24.18

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5542.07	49.82 PK	68.20	-18.38	1.00 H	0	43.26	6.56
2	*5825.00	102.43 PK			1.00 H	96	95.28	7.15
3	*5825.00	88.73 AV			1.00 H	96	81.58	7.15
4	#5850.00	48.72 PK	122.20	-73.48	1.00 H	0	41.52	7.20
5	#5959.37	49.13 PK	68.20	-19.07	1.00 H	0	41.70	7.43
6	11650.00	56.07 PK	74.00	-17.93	1.00 H	0	39.67	16.40
7	11650.00	42.06 AV	54.00	-11.94	1.00 H	0	25.66	16.40
8	#17475.00	61.32 PK	68.20	-6.88	1.00 H	0	37.05	24.27
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	#5672.48	50.52 PK	84.87	-34.35	1.00 V	170	43.69	6.83
2	*5825.00	96.57 PK			1.00 V	63	89.42	7.15
3	*5825.00	84.62 AV			1.00 V	63	77.47	7.15
4	#5850.00	51.42 PK	122.20	-70.78	1.00 V	0	44.22	7.20
5	#5944.23	51.12 PK	68.20	-17.08	1.00 V	170	43.72	7.40
6	11650.00	54.63 PK	74.00	-19.37	1.00 V	0	38.23	16.40
7	11650.00	42.85 AV	54.00	-11.15	1.00 V	0	26.45	16.40
8	#17475.00	62.28 PK	68.20	-5.92	1.00 V	0	38.01	24.27

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

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5574.88	48.65 PK	68.20	-19.55	1.00 H	46	42.03	6.62
2	#5725.00	50.29 PK	122.20	-71.91	1.00 H	0	43.35	6.94
3	*5755.00	100.64 PK			1.00 H	119	93.63	7.01
4	*5755.00	87.73 AV			1.00 H	119	80.72	7.01
5	#5961.90	49.25 PK	68.20	-18.95	1.00 H	46	41.81	7.44
6	11510.00	56.17 PK	74.00	-17.83	1.00 H	0	40.17	16.00
7	11510.00	43.62 AV	54.00	-10.38	1.00 H	0	27.62	16.00
8	#17265.00	62.51 PK	68.20	-5.69	1.00 H	0	38.40	24.11
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5568.99	49.95 PK	68.20	-18.25	1.00 V	0	43.33	6.62
2	#5725.00	55.20 PK	122.20	-67.00	1.00 V	0	48.26	6.94
3	*5755.00	93.47 PK			1.00 V	59	86.46	7.01
4	*5755.00	81.64 AV			1.00 V	59	74.63	7.01
5	#5967.79	50.48 PK	68.20	-17.72	1.00 V	0	43.03	7.45
6	11510.00	55.26 PK	74.00	-18.74	1.00 V	0	39.26	16.00
7	11510.00	43.46 AV	54.00	-10.54	1.00 V	0	27.46	16.00
8	#17265.00	62.32 PK	68.20	-5.88	1.00 V	0	38.21	24.11

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5542.07	50.55 PK	68.20	-17.65	1.00 H	0	43.99	6.56
2	*5795.00	100.28 PK			1.00 H	275	93.19	7.09
3	*5795.00	86.32 AV			1.00 H	275	79.23	7.09
4	#5850.00	49.45 PK	122.20	-72.75	1.00 H	0	42.25	7.20
5	#5986.30	50.05 PK	68.20	-18.15	1.00 H	0	42.56	7.49
6	11590.00	56.78 PK	74.00	-17.22	1.00 H	0	40.56	16.22
7	11590.00	42.16 AV	54.00	-11.84	1.00 H	0	25.94	16.22
8	#17385.00	63.63 PK	68.20	-4.57	1.00 H	0	39.42	24.21
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.53	50.12 PK	68.20	-18.08	1.00 V	0	43.42	6.70
2	*5795.00	96.38 PK			1.00 V	249	89.29	7.09
3	*5795.00	84.41 AV			1.00 V	249	77.32	7.09
4	#5850.00	49.88 PK	122.20	-72.32	1.00 V	0	42.68	7.20
5	#5951.80	50.66 PK	68.20	-17.54	1.00 V	0	43.24	7.42
6	11590.00	55.96 PK	74.00	-18.04	1.00 V	0	39.74	16.22
7	11590.00	43.48 AV	54.00	-10.52	1.00 V	0	27.26	16.22
8	#17385.00	62.64 PK	68.20	-5.56	1.00 V	0	38.43	24.21

REMARKS:

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



**BUREAU
VERITAS**

Test Report No.: RF190820N012-4

802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	54.17 PK	122.20	-68.03	1.00 H	0	47.23	6.94
2	*5775.00	96.09 PK			1.00 H	116	89.04	7.05
3	*5775.00	81.65 AV			1.00 H	116	74.6	7.05
4	#5850.00	50.59 PK	122.20	-71.61	1.00 H	0	43.39	7.20
5	#5861.78	51.53 PK	108.90	-57.37	1.00 H	67	44.30	7.23
6	11550.00	56.81 PK	74.00	-17.19	1.00 H	0	40.69	16.12
7	11550.00	43.08 AV	54.00	-10.92	1.00 H	0	26.96	16.12
8	#17325.00	63.55 PK	68.20	-4.65	1.00 H	0	39.39	24.16
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	59.28 PK	122.20	-62.92	1.00 V	0	52.34	6.94
2	*5775.00	92.10 PK			1.00 V	50	85.05	7.05
3	*5775.00	78.96 AV			1.00 V	50	71.91	7.05
4	#5850.00	56.67 PK	122.20	-65.53	1.00 V	0	49.47	7.20
5	#5867.67	52.61 PK	107.25	-54.64	1.00 V	100	45.37	7.24
6	11500.00	55.42 PK	74.00	-18.58	1.00 V	0	39.45	15.97
7	11500.00	43.75 AV	54.00	-10.25	1.00 V	0	27.78	15.97
8	#17325.00	62.32 PK	68.20	-5.88	1.00 V	0	38.16	24.16

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

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3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTE:** 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.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 12,19	Mar. 11,20
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 12,19	Mar. 11,20
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 13,19	Mar. 12,20
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jan. 17,19	Jan. 16,20
Test software	ADT	ADT_Conc_V7.3.7	N/A	N/A	N/A

NOTES:

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

3.2.3 TEST PROCEDURES

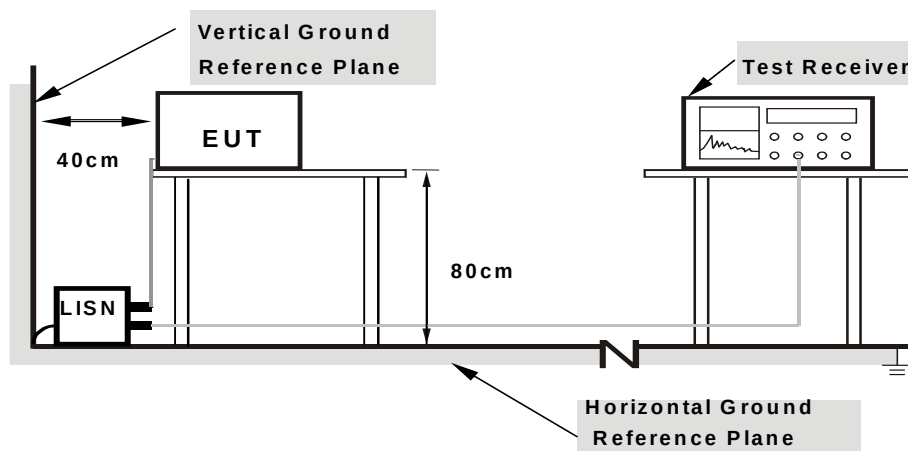
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7

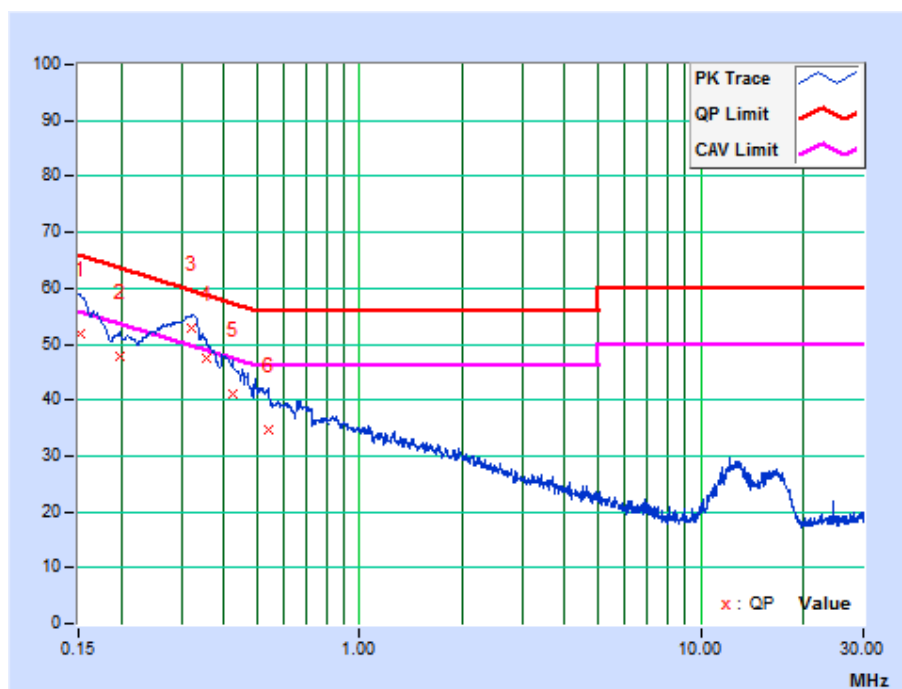
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11a CH36

PHASE	Line	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15225	10.21	41.67	24.39	51.88	34.60	65.88	55.88	-14.00	-21.28
2	0.19721	10.21	37.59	21.88	47.80	32.09	63.73	53.73	-15.93	-21.64
3	0.32142	10.21	42.74	32.76	52.95	42.97	59.67	49.67	-6.72	-6.70
4	0.35475	10.22	37.26	25.93	47.48	36.15	58.85	48.85	-11.37	-12.70
5	0.42298	10.22	30.91	16.57	41.13	26.79	57.39	47.39	-16.26	-20.60
6	0.54150	10.22	24.58	11.68	34.80	21.90	56.00	46.00	-21.20	-24.10

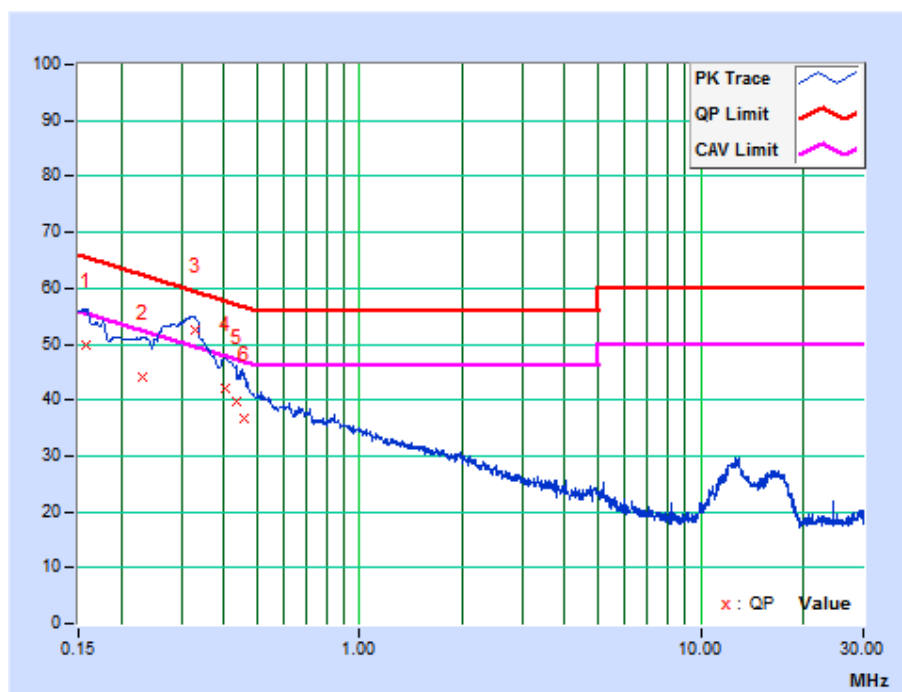
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. The emission levels of other frequencies were very low against the limit.
 3. Margin value = Emission level - Limit value
 4. Correction factor = Insertion loss + Cable loss
 5. Emission Level = Correction Factor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



PHASE	Neutral	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15882	10.01	39.91	25.71	49.92	35.72	65.53	55.53	-15.61	-19.81
2	0.22985	10.00	34.16	18.81	44.16	28.81	62.46	52.46	-18.30	-23.65
3	0.32828	10.01	42.44	30.30	52.45	40.31	59.49	49.49	-7.04	-9.18
4	0.40229	10.02	32.05	18.23	42.07	28.25	57.81	47.81	-15.74	-19.56
5	0.43430	10.02	29.55	16.45	39.57	26.47	57.17	47.17	-17.60	-20.70
6	0.45825	10.02	26.82	14.47	36.84	24.49	56.72	46.72	-19.88	-22.23

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



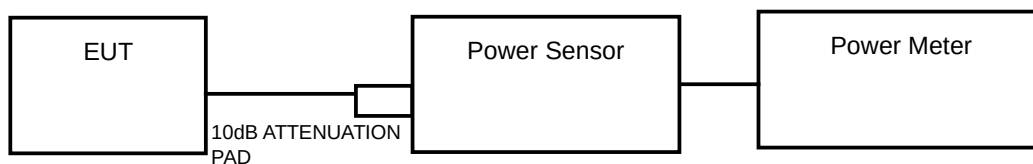
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

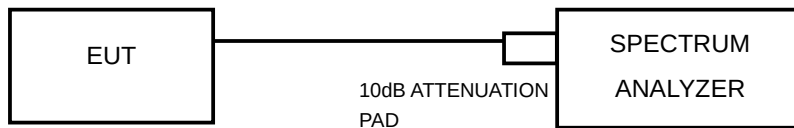
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

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

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	May 22,19	May 21,20
Power Sensor	Keysight	U2021XA	MY55060018	May 22,19	May 21,20
Power Meter	Anritsu	ML2495A	1139001	Mar. 12,19	Mar. 11,20
Power Sensor	Anritsu	MA2411B	1531155	Mar. 12,19	Mar. 11,20
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 18	Oct.16, 19
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Nov.15,18	Nov. 14,19
Oscilloscope	Agilent	DSO9254A	MY51260160	Nov. 09,18	Nov. 08,19
Signal Analyzer	Rohde & Schwarz	FSV7	102331	May 22,19	May 21,20
Signal Generator	Agilent	N5183A	MY50140980	Dec. 07,18	Dec. 06,19
Agile Signal Generator	Agilent	8645A	Agilent	Oct.27, 18	Oct.26, 19
Spectrum Analyzer	Keysight	N9020A	MY55400499	Mar. 12,19	Mar. 11,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Dec. 07, 18	Dec. 06, 19
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A	N/A
DC Source	Keysight	E3642A	MY56146098	N/A	N/A

NOTES:

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

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

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

FOR 6dB BANDWIDTH

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

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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



3.3.7 TEST RESULTS

OUTPUT POWER:

802.11a

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	11.75	14.962	24.00	PASS
40	5200	11.78	15.066	24.00	PASS
48	5240	11.85	15.311	24.00	PASS
52	5260	11.87	15.382	24.00	PASS
60	5300	11.78	15.066	24.00	PASS
64	5320	11.67	14.689	24.00	PASS
100	5500	11.13	12.972	24.00	PASS
120	5600	10.61	11.508	24.00	PASS
140	5700	9.70	9.333	24.00	PASS
149	5745	10.19	10.447	30.00	PASS
157	5785	9.73	9.397	30.00	PASS
165	5825	9.92	9.817	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5500 ~ 5700MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5745 ~ 5825MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

1. $11\text{dBm} + 10\log(23.13) = 24.64\text{dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(23.28) = 24.67\text{dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(23.15) = 24.65\text{dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(23.49) = 24.87\text{dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(23.97) = 24.80\text{dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(23.73) = 24.75\text{dBm} < 24\text{dBm}$

802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	10.81	12.05	24.00	PASS
40	5200	10.65	11.614	24.00	PASS
48	5240	11.21	13.213	24.00	PASS
52	5260	10.84	12.134	24.00	PASS
60	5300	11.14	13.002	24.00	PASS
64	5320	11.05	12.735	24.00	PASS
100	5500	10.81	12.05	24.00	PASS
120	5600	10.59	11.455	24.00	PASS
140	5700	10.57	11.402	24.00	PASS
149	5745	11.44	13.932	30.00	PASS
157	5785	10.58	11.429	30.00	PASS
165	5825	10.27	10.641	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5500 ~ 5700MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5745 ~ 5825MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (22.78) = 24.58dBm > 24dBm

11dBm + 10log (23.80) = 24.77dBm > 24dBm

11dBm + 10log (24.10) = 24.82dBm > 24dBm

11dBm + 10log (24.90) = 24.96dBm > 24dBm

11dBm + 10log (24.08) = 24.82dBm > 24dBm

11dBm + 10log (24.29) = 24.85dBm > 24dBm

802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	10.37	10.889	24.00	PASS
46	5230	11.01	12.618	24.00	PASS
54	5270	10.95	12.445	24.00	PASS
62	5310	10.92	12.359	24.00	PASS
102	5510	10.67	11.668	24.00	PASS
118	5590	10.38	10.914	24.00	PASS
134	5670	10.27	10.641	24.00	PASS
151	5755	9.73	9.397	24.00	PASS
159	5795	9.62	9.162	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5500 ~ 5700MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5745 ~ 5825MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (43.91) = 27.43dBm > 24dBm

11dBm + 10log (44.03) = 27.44dBm > 24dBm

11dBm + 10log (45.16) = 27.55dBm > 24dBm

11dBm + 10log (44.70) = 27.50dBm > 24dBm

11dBm + 10log (44.54) = 27.49dBm > 24dBm

802.11ac (80MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
42	5210	10.27	10.641	24.00	PASS
58	5290	11.27	13.397	24.00	PASS
106	5530	9.89	9.75	24.00	PASS
122	5610	10.89	12.274	24.00	PASS
155	5775	10.50	11.22	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5500 ~ 5700MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

5745 ~ 5825MHz Max. Gain = 0.61dBi < 6dBi, so the limit no ned to be reduced.

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

$11\text{dBm} + 10\log(82.18) = 30.15\text{dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(82.50) = 30.16\text{dBm} > 24\text{dBm}$

$11\text{dBm} + 10\log(82.60) = 30.17\text{dBm} > 24\text{dBm}$

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	22.81	PASS
40	5200	23.68	PASS
48	5240	23.84	PASS
52	5260	23.13	PASS
60	5300	23.28	PASS
64	5320	23.15	PASS
100	5500	24.39	PASS
132	5660	23.97	PASS
140	5700	23.73	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	23.89	PASS
40	5200	23.87	PASS
48	5240	23.93	PASS
52	5260	22.78	PASS
60	5300	23.80	PASS
64	5320	24.10	PASS
100	5500	24.90	PASS
132	5660	24.08	PASS
140	5700	24.29	PASS

802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	43.95	PASS
46	5230	42.96	PASS
54	5270	43.91	PASS
62	5310	44.03	PASS
102	5510	45.16	PASS
118	5590	44.70	PASS
134	5670	44.54	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
42	5210	82.48	PASS
58	5290	82.18	PASS
106	5530	82.50	PASS
122	5610	82.60	PASS

6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	15.19	PASS
157	5785	15.35	PASS
165	5825	15.39	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	15.19	PASS
157	5785	15.37	PASS
165	5825	15.20	PASS

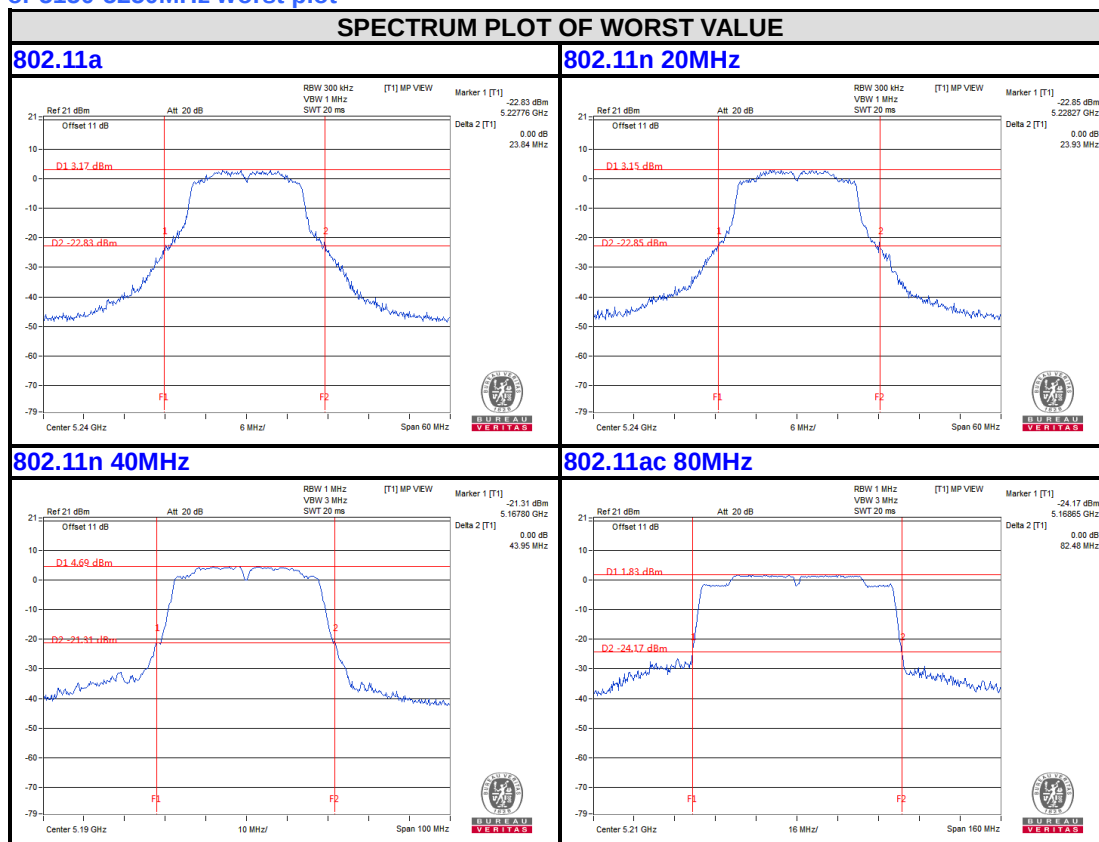
802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.29	PASS
159	5795	35.24	PASS

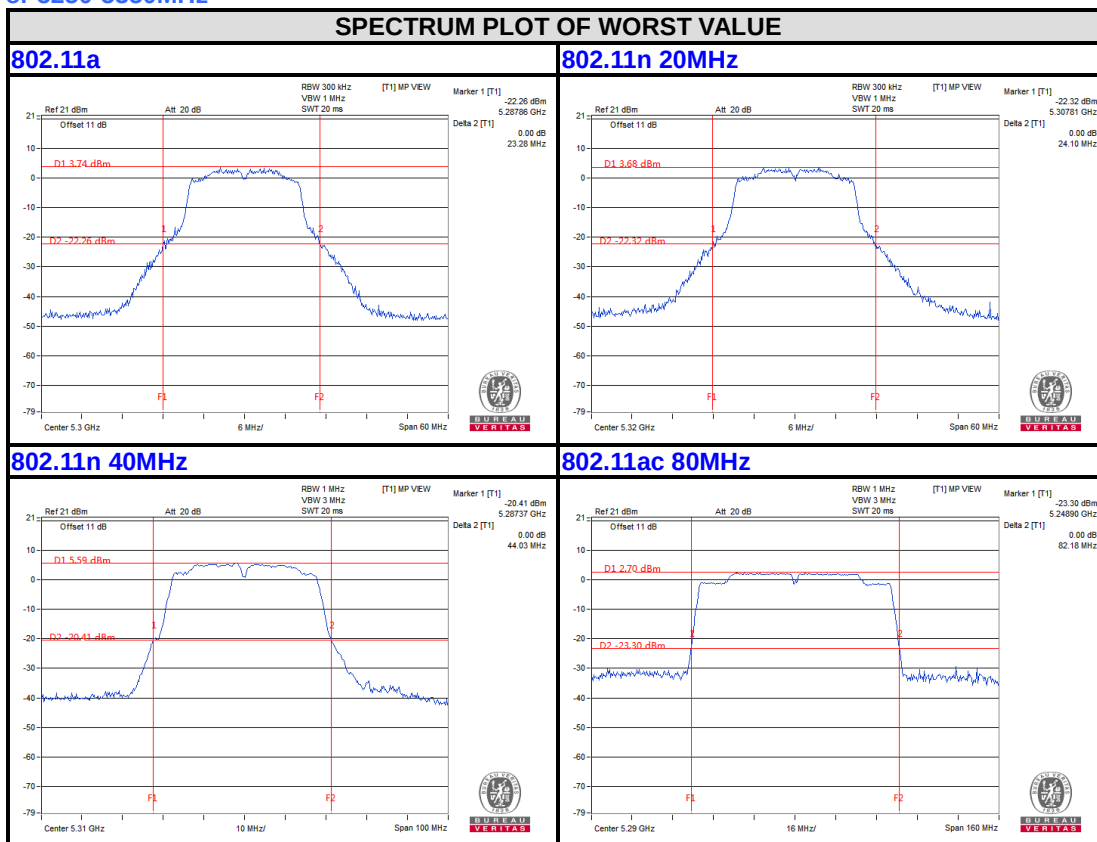
802.11ac (80MHz)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
155	5775	75.46	PASS

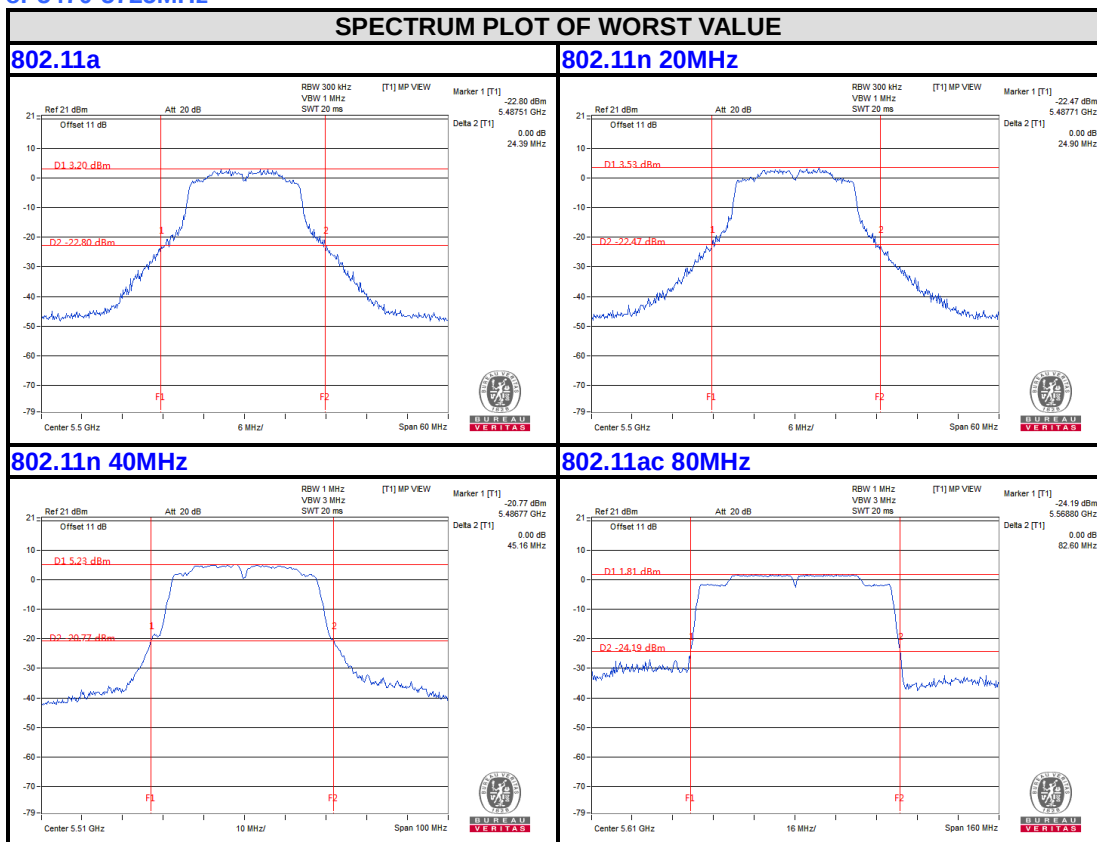
**26dB bandwidth Test Plot
For 5150-5250MHz worst plot**



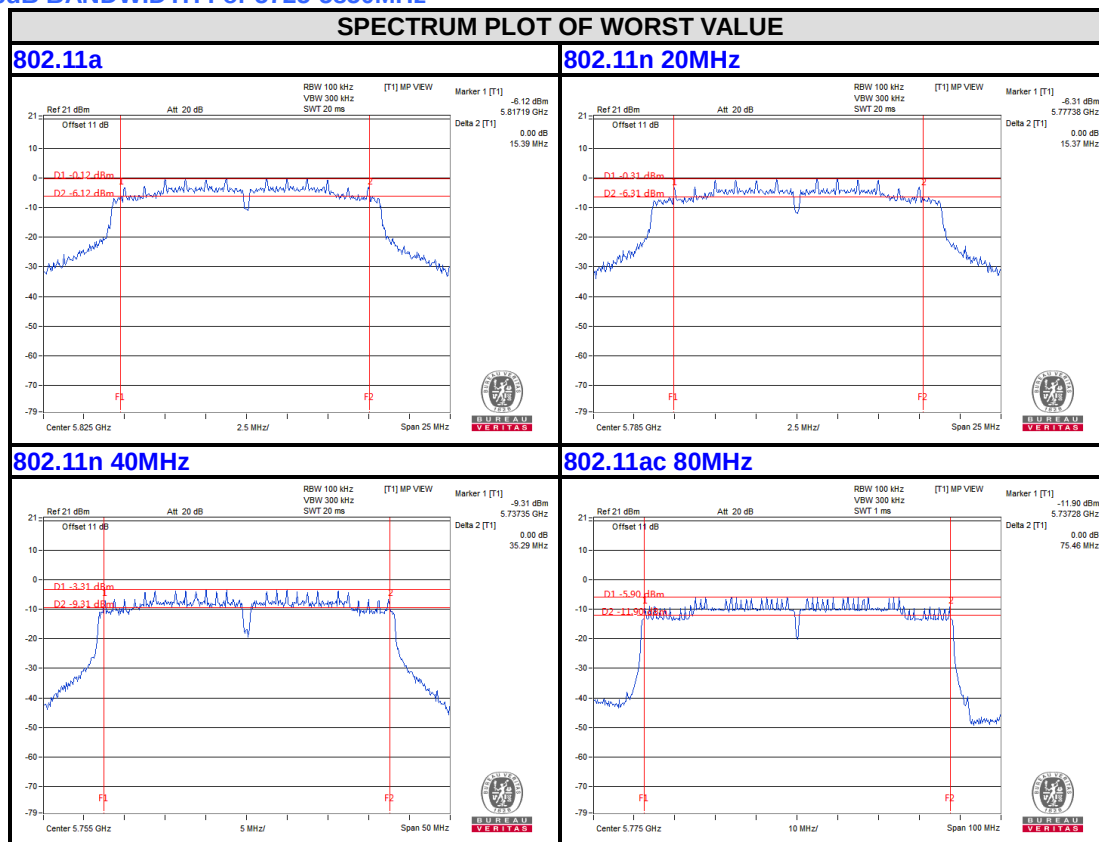
For 5250-5350MHz



For 5470-5725MHz



6dB BANDWIDTH For 5725-5850MHz

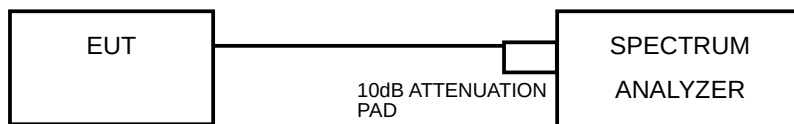


3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

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

For U-NII-3 band:

Using method SA-2

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

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6

3.4.7 TEST RESULTS

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

802.11a

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	-2.84	0.103	-2.737	11.00	PASS
40	5200	-2.00	0.103	-1.897	11.00	PASS
48	5240	-2.14	0.103	-2.037	11.00	PASS
52	5260	-1.69	0.103	-1.587	11.00	PASS
60	5300	-1.86	0.103	-1.757	11.00	PASS
64	5320	-2.08	0.103	-1.977	11.00	PASS
100	5500	-2.28	0.103	-2.177	11.00	PASS
116	5580	-2.07	0.103	-1.967	11.00	PASS
140	5700	-2.58	0.103	-2.477	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-10.00	-7.78	0.103	-7.677	30.00	PASS
157	5785	-10.98	-8.76	0.103	-8.657	30.00	PASS
165	5825	-10.88	-8.66	0.103	-8.557	30.00	PASS

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

802.11n (20MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	-2.45	0.101	-2.349	11.00	PASS
40	5200	-2.47	0.101	-2.369	11.00	PASS
48	5240	-1.92	0.101	-1.819	11.00	PASS
52	5260	-1.86	0.101	-1.759	11.00	PASS
60	5300	-1.92	0.101	-1.819	11.00	PASS
64	5320	-1.78	0.101	-1.679	11.00	PASS
100	5500	-1.95	0.101	-1.849	11.00	PASS
116	5580	-2.67	0.101	-2.569	11.00	PASS
140	5700	-3.28	0.101	-3.179	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-10.70	-8.48	0.101	-8.379	30.00	PASS
157	5785	-11.45	-9.23	0.101	-9.129	30.00	PASS
165	5825	-11.11	-8.89	0.101	-8.789	30.00	PASS

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

**802.11n (40MHz)**

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
38	5190	-6.18	0.164	-6.016	11.00	PASS
46	5230	-5.73	0.164	-5.566	11.00	PASS
54	5270	-5.15	0.164	-4.986	11.00	PASS
62	5310	-5.30	0.164	-5.136	11.00	PASS
102	5510	-5.67	0.164	-5.506	11.00	PASS
118	5590	-5.39	0.164	-5.226	11.00	PASS
134	5670	-6.15	0.164	-5.986	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	-14.58	-12.36	0.164	-12.196	30.00	PASS
159	5795	-14.42	-12.20	0.164	-12.036	30.00	PASS

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

802.11ac (80MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	PASS / FAIL
42	5210	-8.90	0.290	-8.61	11.00	PASS
58	5290	-8.30	0.290	-8.01	11.00	PASS
106	5530	-8.46	0.290	-8.17	11.00	PASS
122	5610	-8.85	0.290	-8.56	11.00	PASS

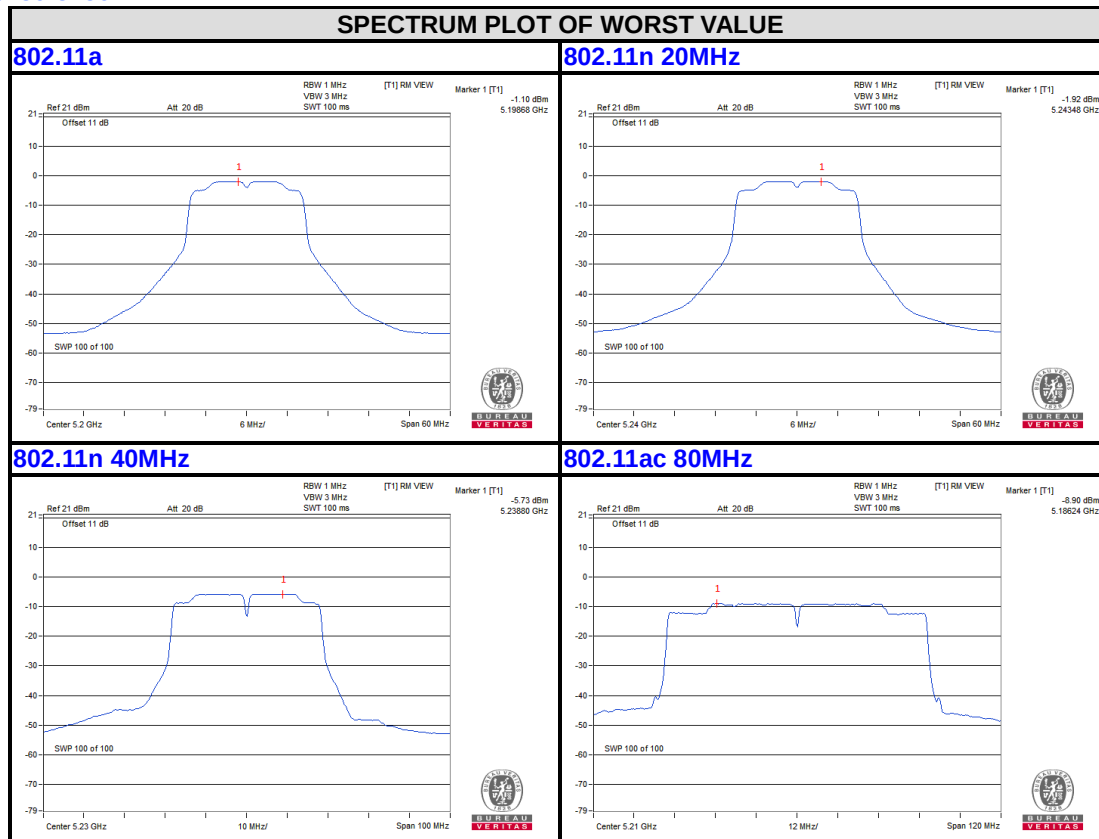
Note: Refer to section 2.3 for duty cycle spectrum plot.

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
155	5775	-17.81	-15.59	0.290	-15.30	30.00	PASS

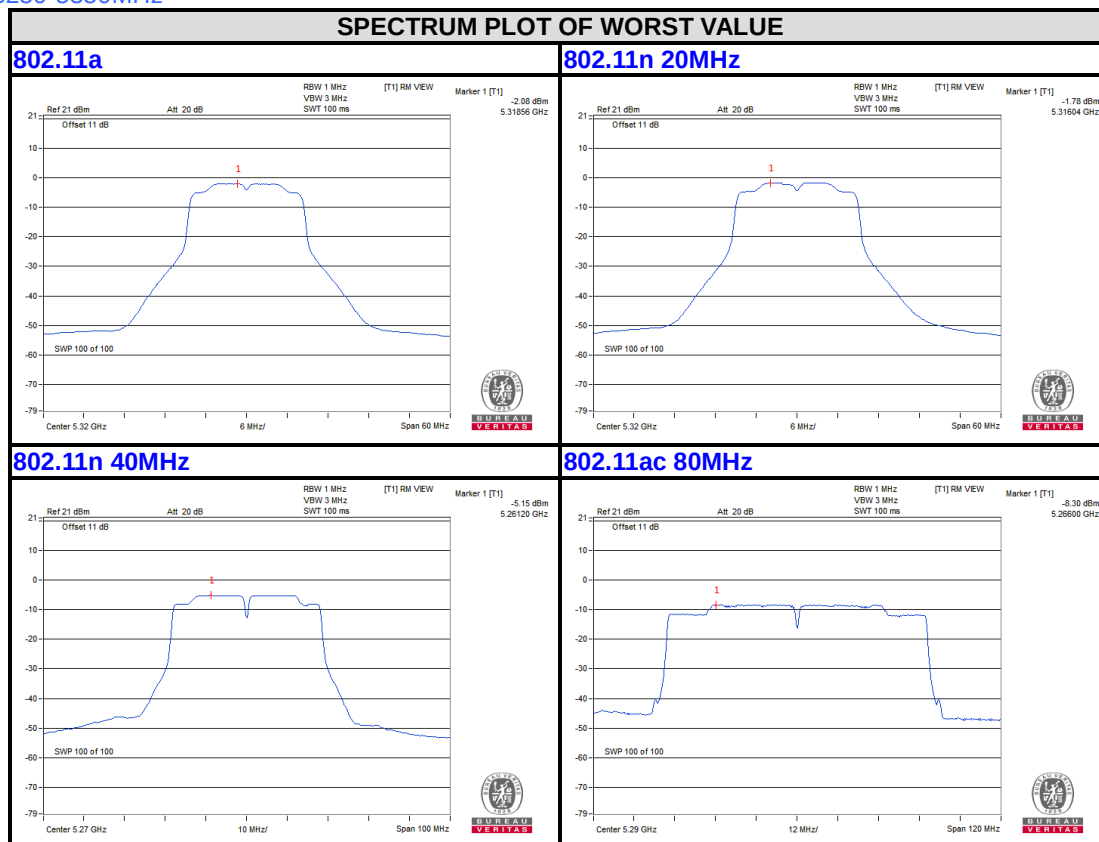
Note: Refer to section 2.3 for duty cycle spectrum plot.

PSD Test Plot

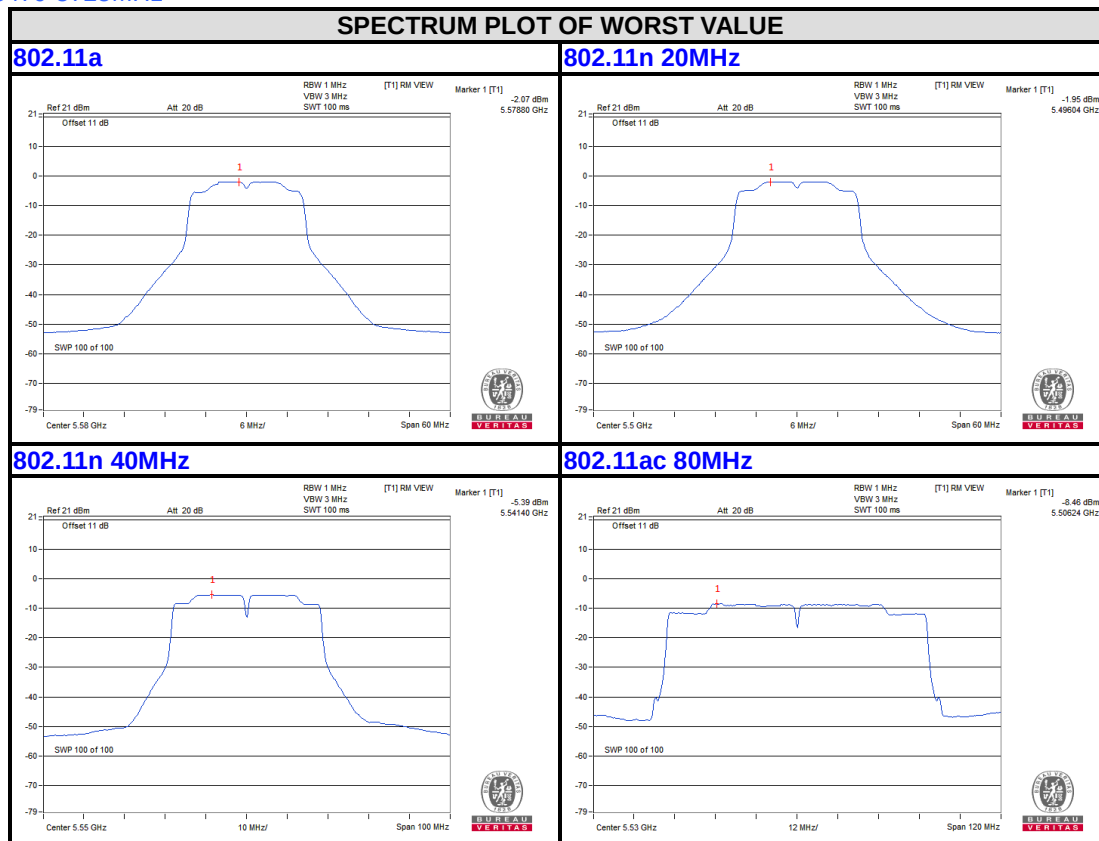
BAND 1
5150-5250MHz



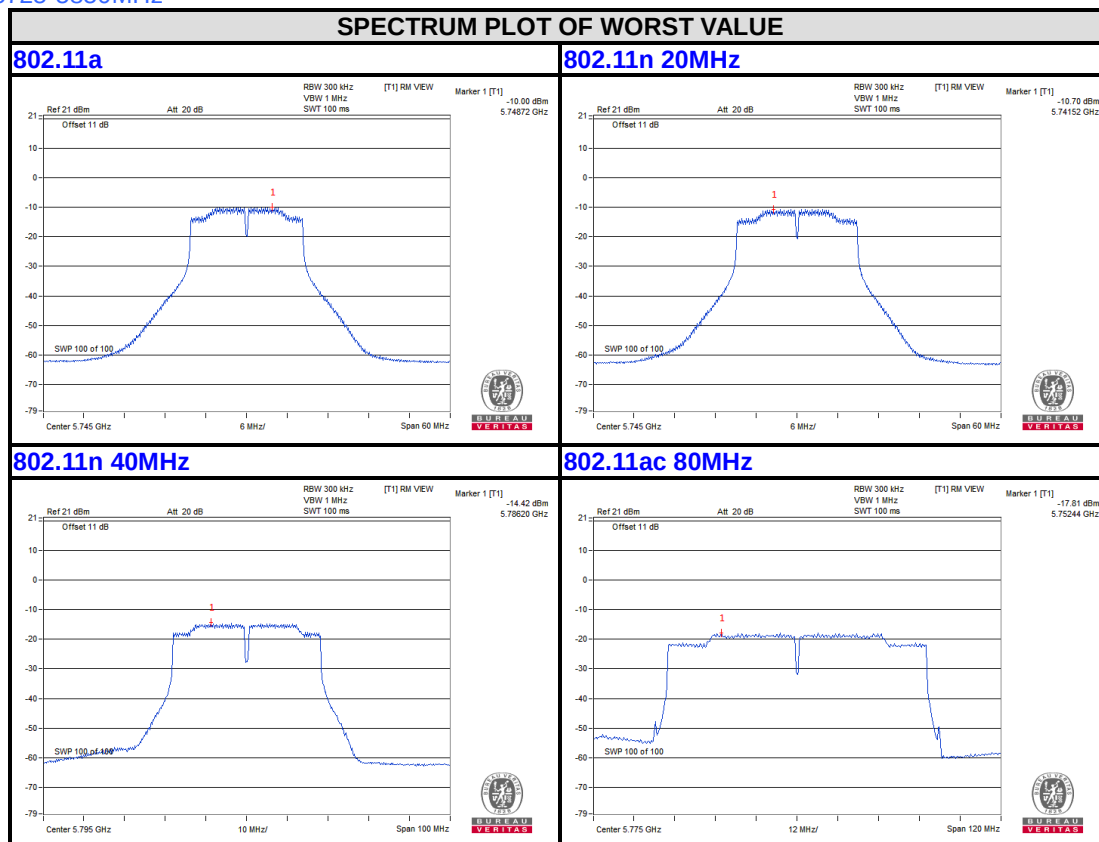
BAND 2
5250-5350MHz



BAND 3
5470-5725MHz



BAND4
5725-5850MHz

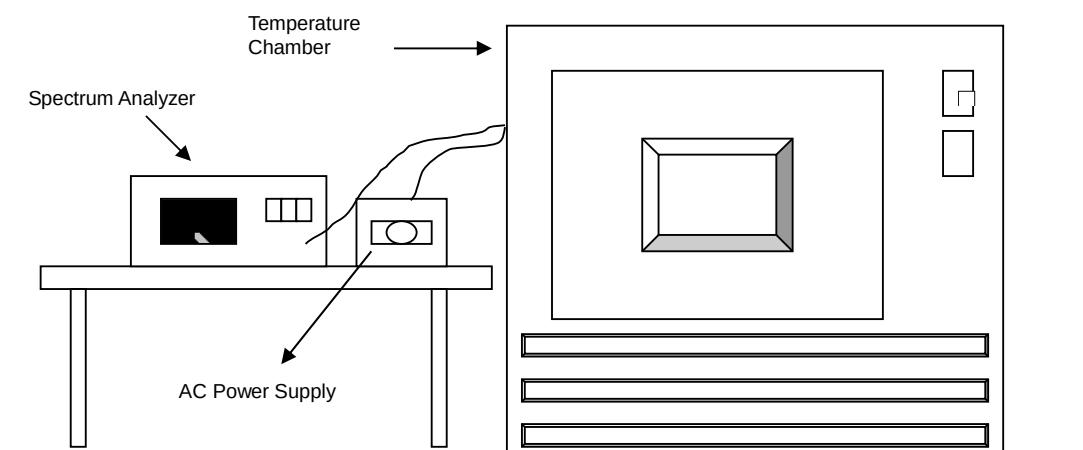


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.4 TEST PROCEDURE

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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

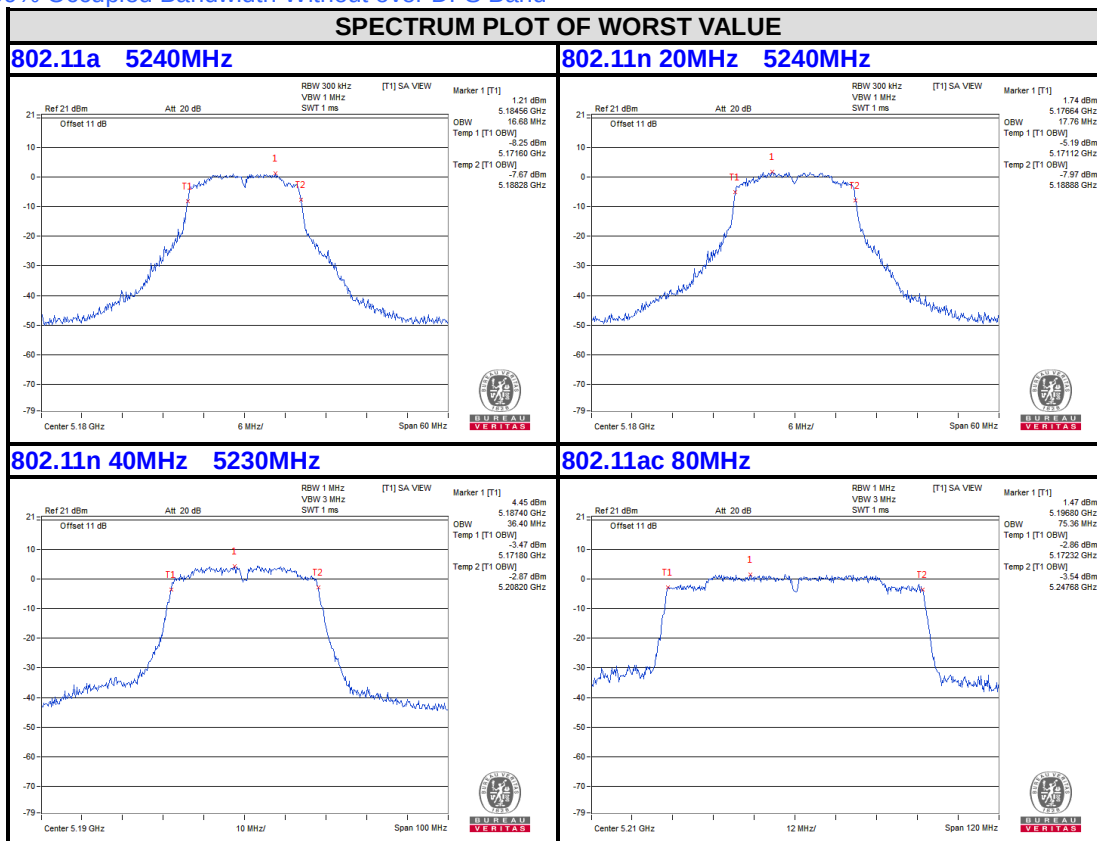
Set the EUT transmit at un-modulation mode to test frequency stability.

3.5.7 TEST RESULTS

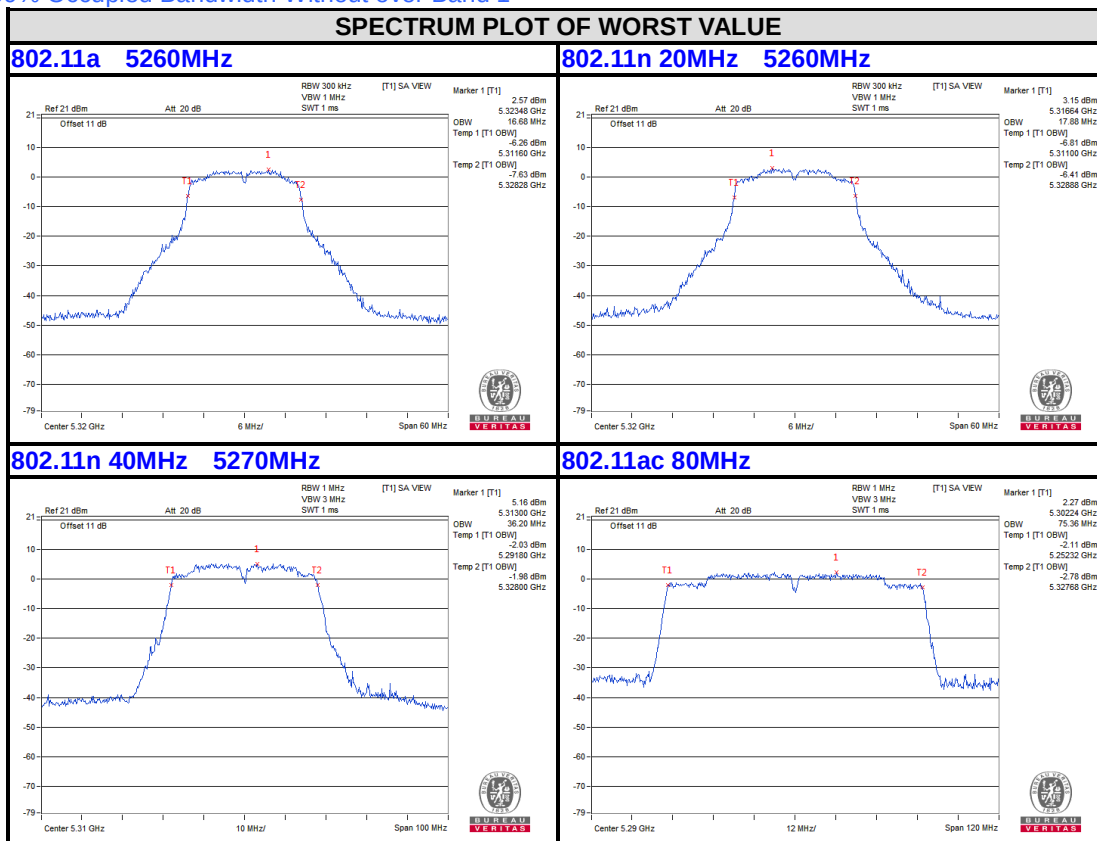
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.98	-0.00039	5179.9757	-0.00047	5179.9753	-0.00048	5179.9779	-0.00043
40	120	5179.9848	-0.00029	5179.9835	-0.00032	5179.9845	-0.00030	5179.9849	-0.00029
30	120	5180.0185	0.00036	5180.0194	0.00037	5180.0213	0.00041	5180.0182	0.00035
20	120	5180.0119	0.00023	5180.0102	0.00020	5180.0133	0.00026	5180.0128	0.00025
10	120	5179.9899	-0.00019	5179.99	-0.00019	5179.9897	-0.00020	5179.9886	-0.00022
0	120	5180.0181	0.00035	5180.02	0.00039	5180.0186	0.00036	5180.0201	0.00039
-10	120	5180.0165	0.00032	5180.0139	0.00027	5180.0183	0.00035	5180.0167	0.00032
-20	120	5179.9896	-0.00020	5179.9854	-0.00028	5179.989	-0.00021	5179.987	-0.00025
-30	120	5179.9826	-0.00034	5179.9848	-0.00029	5179.9833	-0.00032	5179.9862	-0.00027

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.011	0.00021	5180.0111	0.00021	5180.013	0.00025	5180.0131	0.00025
	120	5180.0119	0.00023	5180.0102	0.00020	5180.0133	0.00026	5180.0128	0.00025
	102	5180.0115	0.00022	5180.0106	0.00020	5180.0142	0.00027	5180.0137	0.00026

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



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---