FCC Part 15E Test Report
FCC ID: 2BD2Q-CUSTOS

Applicant:	Vernte Technologies
Address:	5214 Diamond heights Blvd, San Francisco, California, USA (94131)
Manufacturer:	Zhongshan Saier Intelligent Technology Co., Ltd
Address:	Area A, Floor 4, NO.1 Factory Building, NO.77 Huanzhou North Road, Tanzhou Town, Zhongshan City, Guangdong, China
EUT:	Custos Smart Headphones
Trade Mark:	Vernte
Model Number:	Custos
Date of Receipt:	Jan. 14, 2024
Test Date:	Jan. 14, 2024 - Jan. 28, 2024
Date of Report:	Jan. 28, 2024
Prepared By:	Shenzhen DL Testing Technology Co., Ltd.
Address:	101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China
Applicable Standards:	FCC PART 15 E 15.407 ANSI C63.10:2013
Test Result:	Pass
Report Number:	DL-20240128004E

Prepared (Test Engineer):	Pxing Huang
Reviewer (Supervisor):	Jack Bu
Approved (Manager):	Jade Yang

This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.407) , Subpart E			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.407(b), 15.209	Radiated Spurious Emission	PASS	
15.407 (b)	Band Edge Emission	PASS	
15.407 (a)	Peak Output Power	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.403(i) 15.407(e)	26dB bandwidth and 99%dB Bandwidth 6dB bandwidth and 99%dB Bandwidth	PASS	
15.407(g)	Frequency Stability	PASS	
15.407(c)	Transmission in case of Absence of Information	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

Test lab: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China

FCC Test Firm Registration Number: 854456
Designation Number: CN1307
IC Registered No.: 27485
CAB ID.: CN0118

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±2.56dB
2	RF power,conducted	±0.42dB
3	Spurious emissions,conducted	±2.76dB
4	All emissions,radiated(<1G)	±3.65dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%
8	Bandwidth	±0.2MHz
9	Power Spectral Density	±0.42dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Custos Smart Headphones
Trademark	Vernte
Model No.:	Custos
Model Difference	N/A
Operation Frequency:	5180-5240, 5745-5825MHz(802.11a/n/ac(HT20)) 5190-5230, 5755-5795MHz(802.11n/ac(HT40)) 5210MHz , 5775MHz (802.11ac(HT80))
Channel numbers:	See channel list
Channel separation:	20MHz/40MHz/80MHz
Modulation technology:	64QAM, 16QAM, QPSK, BPSK for OFDM
Rate of Transmitter	802.11a: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps 802.11n: Up to 300Mbps 802.11ac: up to 867Mbps
Antenna Type:	Internal Antenna
Antenna gain:	2.75dBi
Power supply:	DC 3.7V from battery DC 5V from charger

Note:

1.For a more detailed features description, please refer to the manufacturer’s specifications or the User's Manual.

2.The EUT’s all information provided by client.

2. Channel List

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	/	/

Channel List for 802.11a/n(HT20)/ac(HT20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

Channel List for 802.11n(HT40)/ac(HT40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

Channel List for 802.11ac(HT80)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775	/	/

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

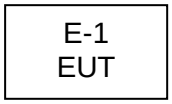
Description			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Link Mode		

For Radiated Emission			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40	CH38, CH46	CH151, CH159
Mode 3	802.11acHT80	CH42	CH155
Mode 4	Link Mode		

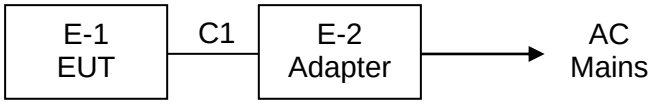
Note: 1. The measurements are performed at the highest, middle, lowest available channels.
2. During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



Conducted Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.

Item	Equipment	Model/Type No.	Series No.	Note
E-1	Custos Smart Headphones	Custos	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

(1) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.5 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the end product.

Max output power Setting				
Test software Version	Test program: MTK			
Mode	802.11a	802.11n HT20	802.11n HT40	802.11ac HT20/HT40/HT80
Data Rate	6Mbps	MSC0	MSC0	MSC0
Power Setting of Softwave	60	60	66	66

2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 05, 2023	Nov. 04, 2024
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 05, 2023	Nov. 04, 2024
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 05, 2023	Nov. 04, 2024
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 05, 2023	Nov. 04, 2024
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 05, 2023	Nov. 04, 2024
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 05, 2023	Nov. 04, 2024
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 05, 2023	Nov. 04, 2024
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 05, 2023	Nov. 04, 2024
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 05, 2023	Nov. 04, 2024
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 05, 2023	Nov. 04, 2024
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 05, 2023	Nov. 04, 2024
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 05, 2023	Nov. 04, 2024
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 05, 2023	Nov. 04, 2024
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Nov. 05, 2023	Nov. 04, 2024
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Nov. 05, 2023	Nov. 04, 2024
16	D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 05, 2023	Nov. 04, 2024

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Sep. 20, 2022	Sep. 19, 2025
2	EMI Receiver	R&S	ESR	101421	Nov. 05, 2023	Nov. 04, 2024
3	LISN	R&S	ENV216	102417	Nov. 05, 2023	Nov. 04, 2024
4	843 Cable 1#	ChengYu	CE Cable	001	Nov. 05, 2023	Nov. 04, 2024

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ_EMC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ_EMC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.5 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

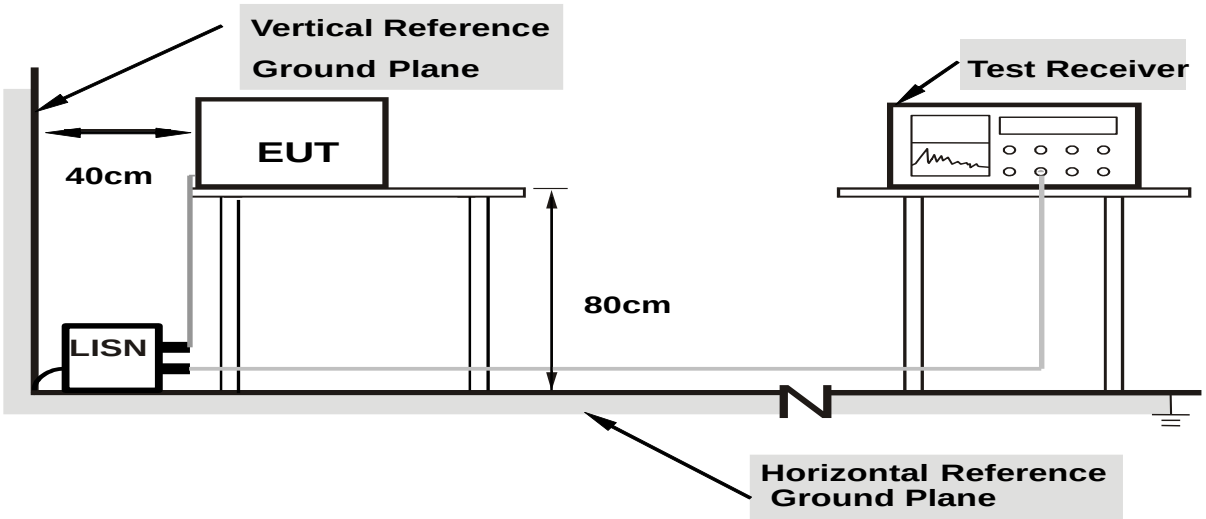
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



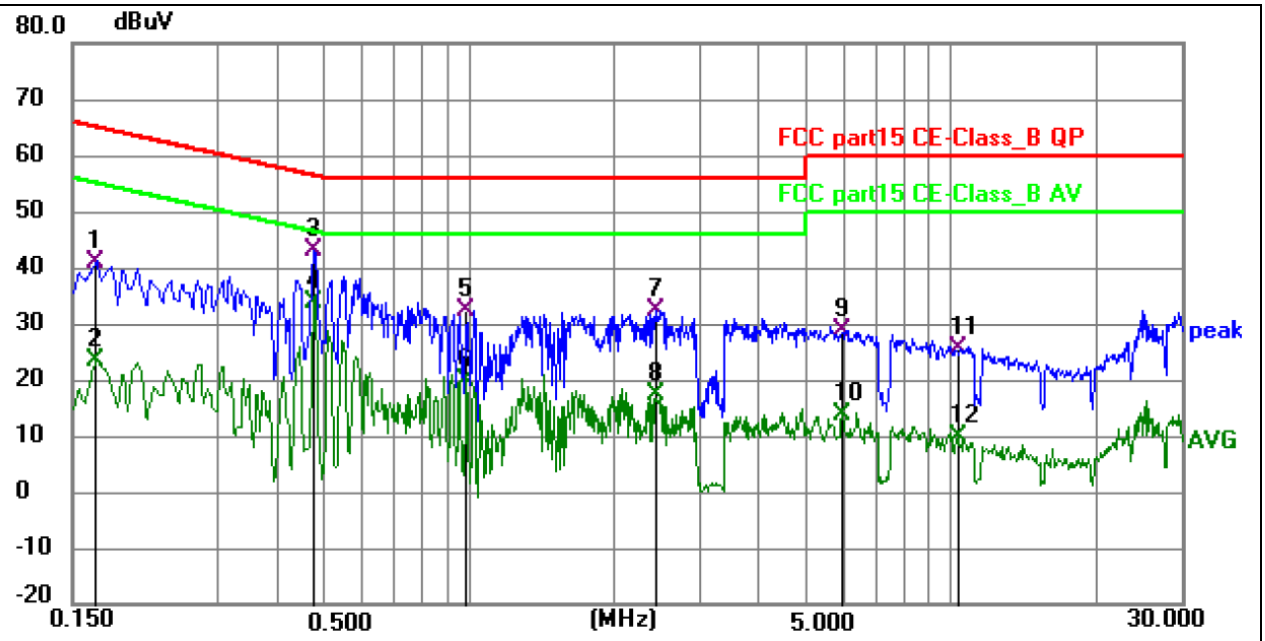
Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.
We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.

3.1.6 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4

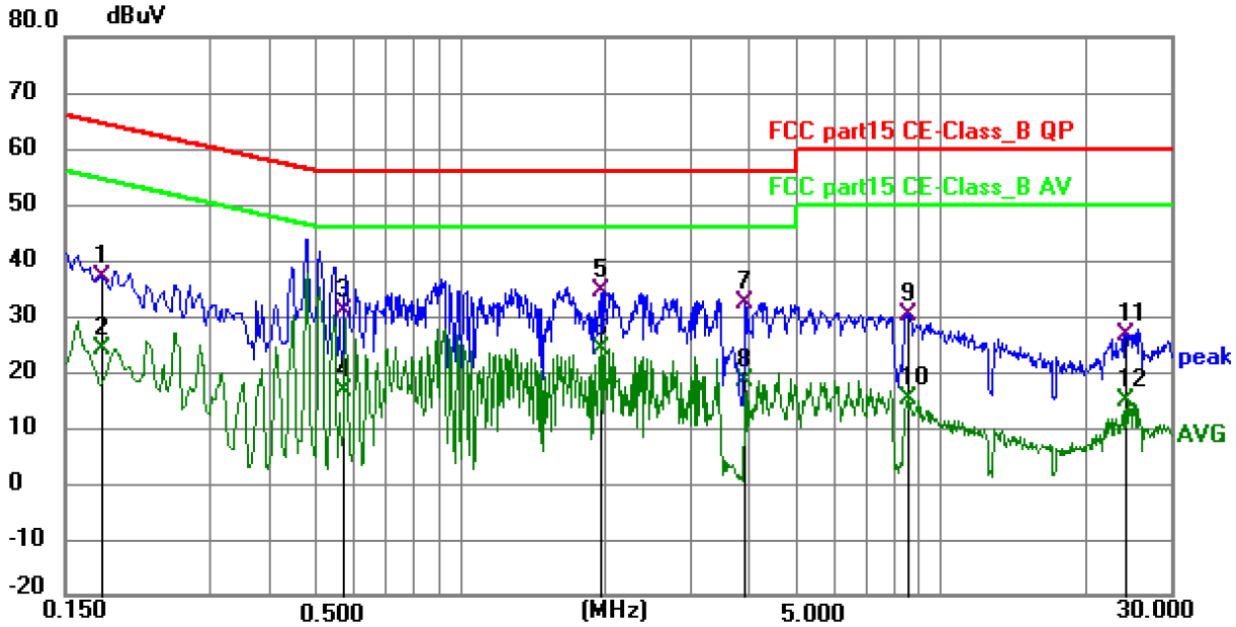


Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1680	31.06	9.86	40.92	65.06	-24.14	QP	P	
2	0.1680	13.71	9.86	23.57	55.06	-31.49	AVG	P	
3	0.4740	33.58	9.41	42.99	56.44	-13.45	QP	P	
4 *	0.4740	24.31	9.41	33.72	46.44	-12.72	AVG	P	
5	0.9870	23.00	9.44	32.44	56.00	-23.56	QP	P	
6	0.9870	10.27	9.44	19.71	46.00	-26.29	AVG	P	
7	2.4539	22.40	9.96	32.36	56.00	-23.64	QP	P	
8	2.4539	7.28	9.96	17.24	46.00	-28.76	AVG	P	
9	5.9460	18.75	10.10	28.85	60.00	-31.15	QP	P	
10	5.9460	3.56	10.10	13.66	50.00	-36.34	AVG	P	
11	10.3200	15.21	10.30	25.51	60.00	-34.49	QP	P	
12	10.3200	-0.47	10.30	9.83	50.00	-40.17	AVG	P	

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 4



Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1787	26.88	9.96	36.84	64.55	-27.71	QP	P	
2	0.1787	13.97	9.96	23.93	54.55	-30.62	AVG	P	
3	0.5730	21.48	9.35	30.83	56.00	-25.17	QP	P	
4	0.5730	7.24	9.35	16.59	46.00	-29.41	AVG	P	
5 *	1.9680	24.60	9.95	34.55	56.00	-21.45	QP	P	
6	1.9680	14.28	9.95	24.23	46.00	-21.77	AVG	P	
7	3.9120	22.47	9.84	32.31	56.00	-23.69	QP	P	
8	3.9120	8.55	9.84	18.39	46.00	-27.61	AVG	P	
9	8.5740	20.27	10.06	30.33	60.00	-29.67	QP	P	
10	8.5740	5.07	10.06	15.13	50.00	-34.87	AVG	P	
11	24.3690	15.39	11.24	26.63	60.00	-33.37	QP	P	
12	24.3690	3.41	11.24	14.65	50.00	-35.35	AVG	P	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40GHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) 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.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

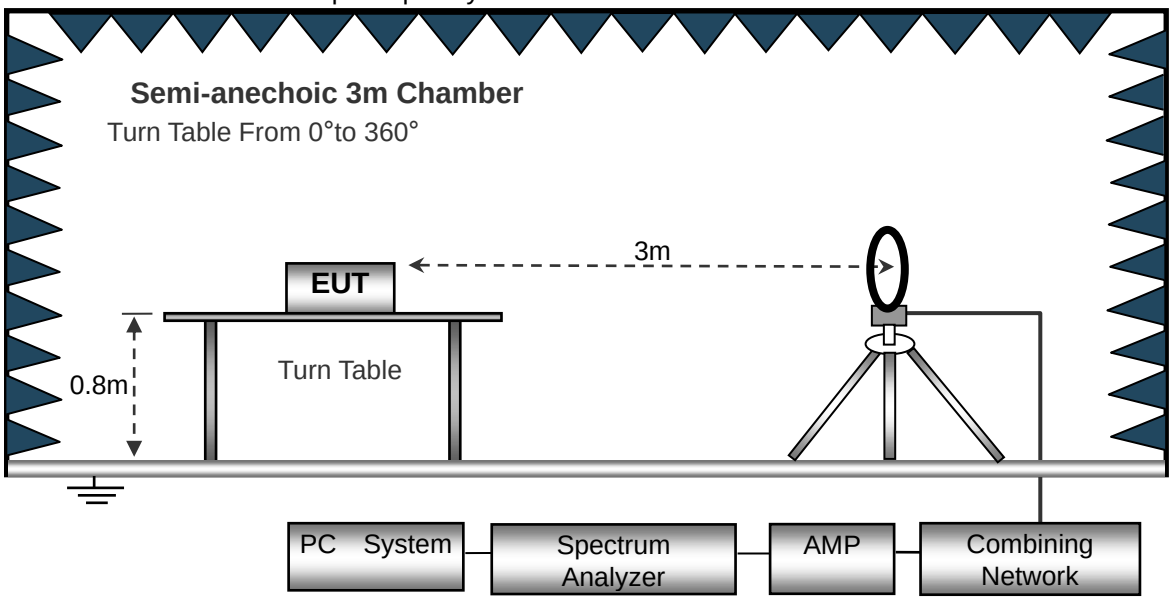
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

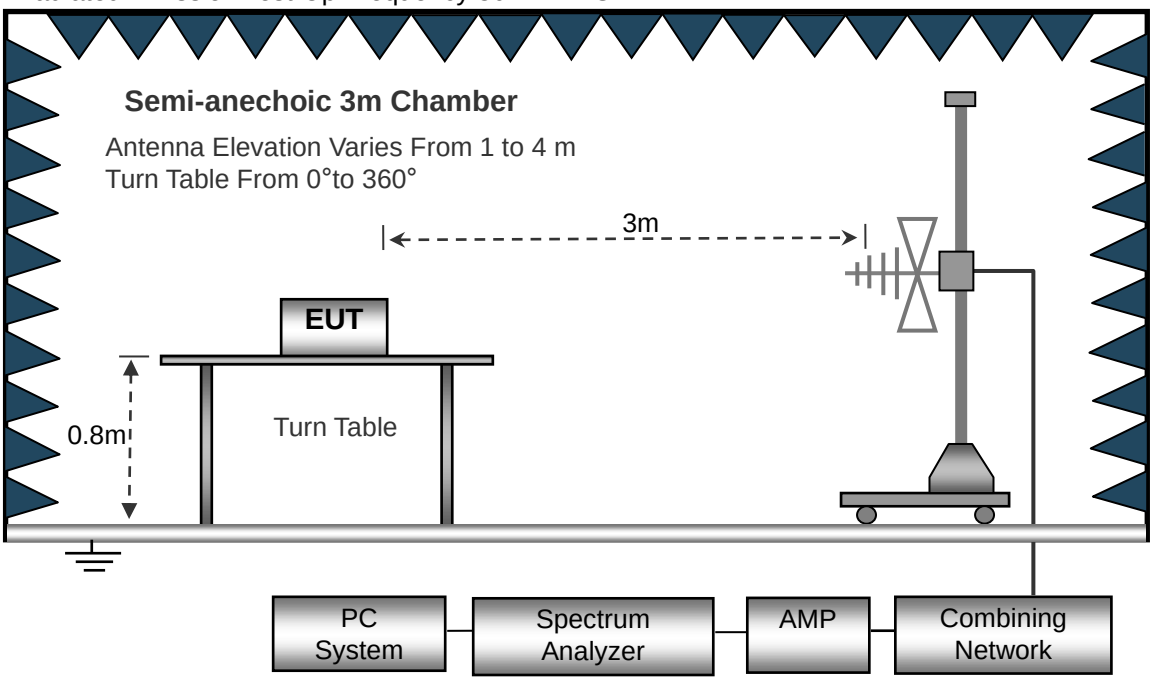
No deviation

3.2.4 TEST SETUP

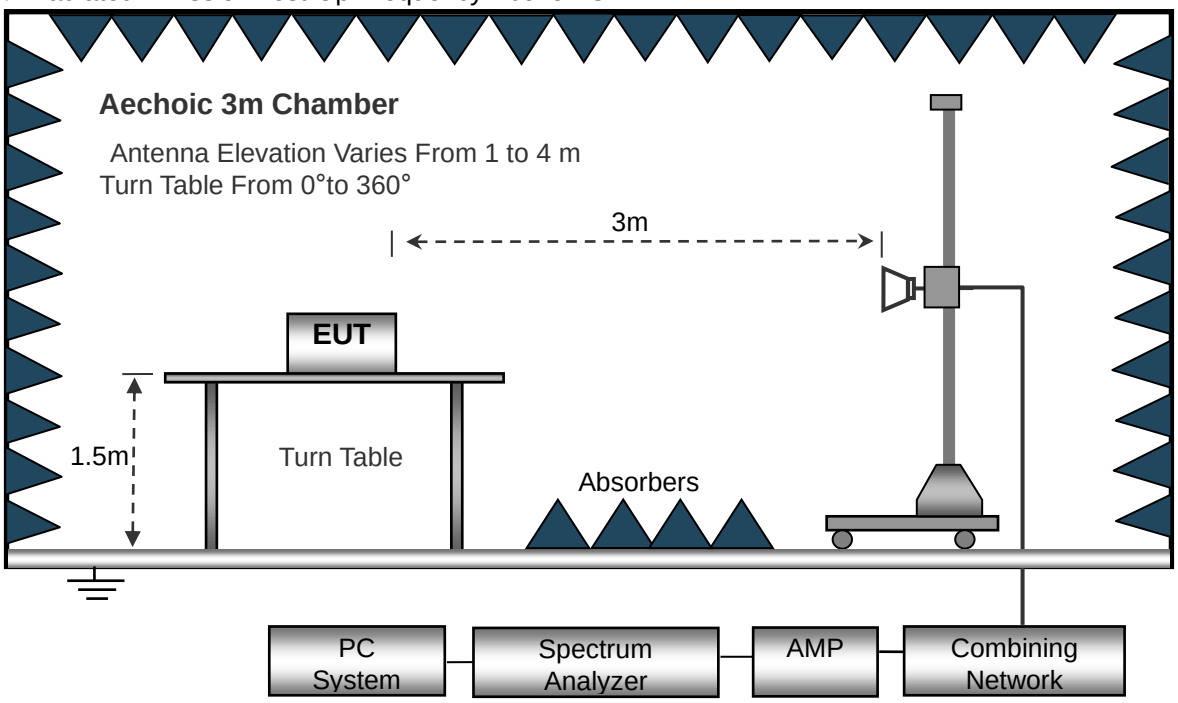
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.6 TEST RESULTS (Between 9KHz – 30 MHz)

Temperature:	20℃	Relative Humidtity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 4	Polarization :	--

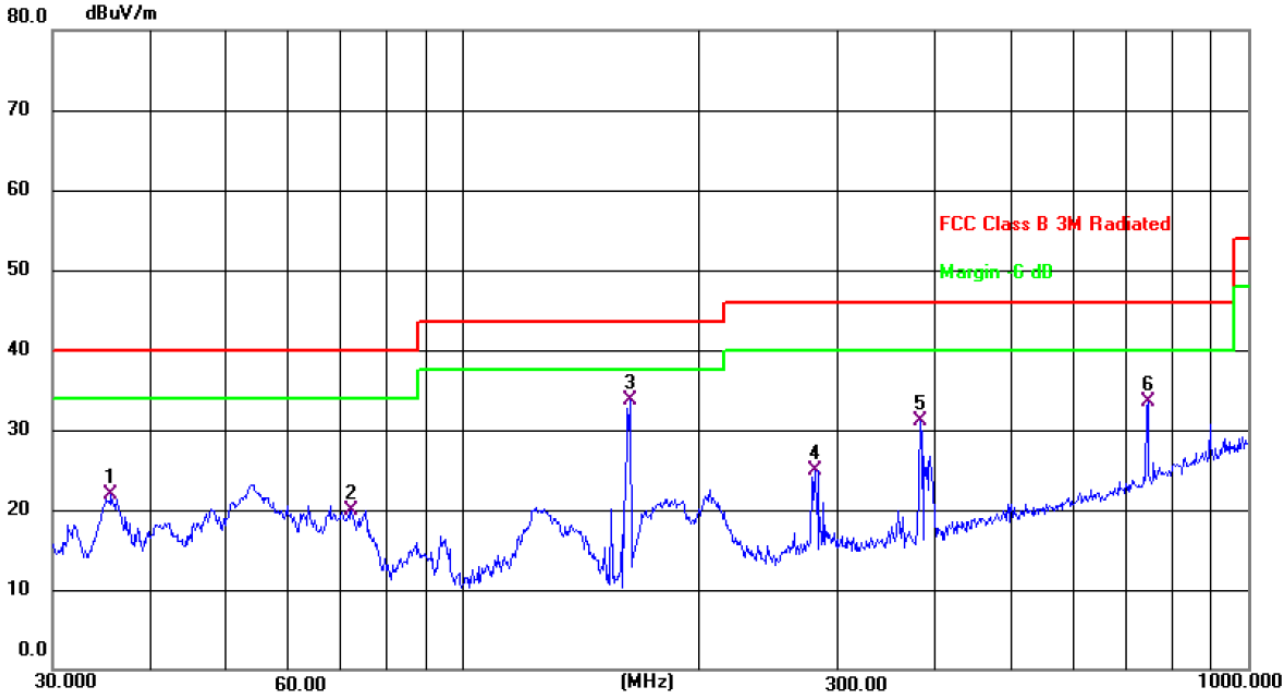
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.7 TEST RESULTS (Between 30MHz – 1GHz)

Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Horizontal
Test Voltage :	DC 3.7V		
Test Mode :	Mode 4		



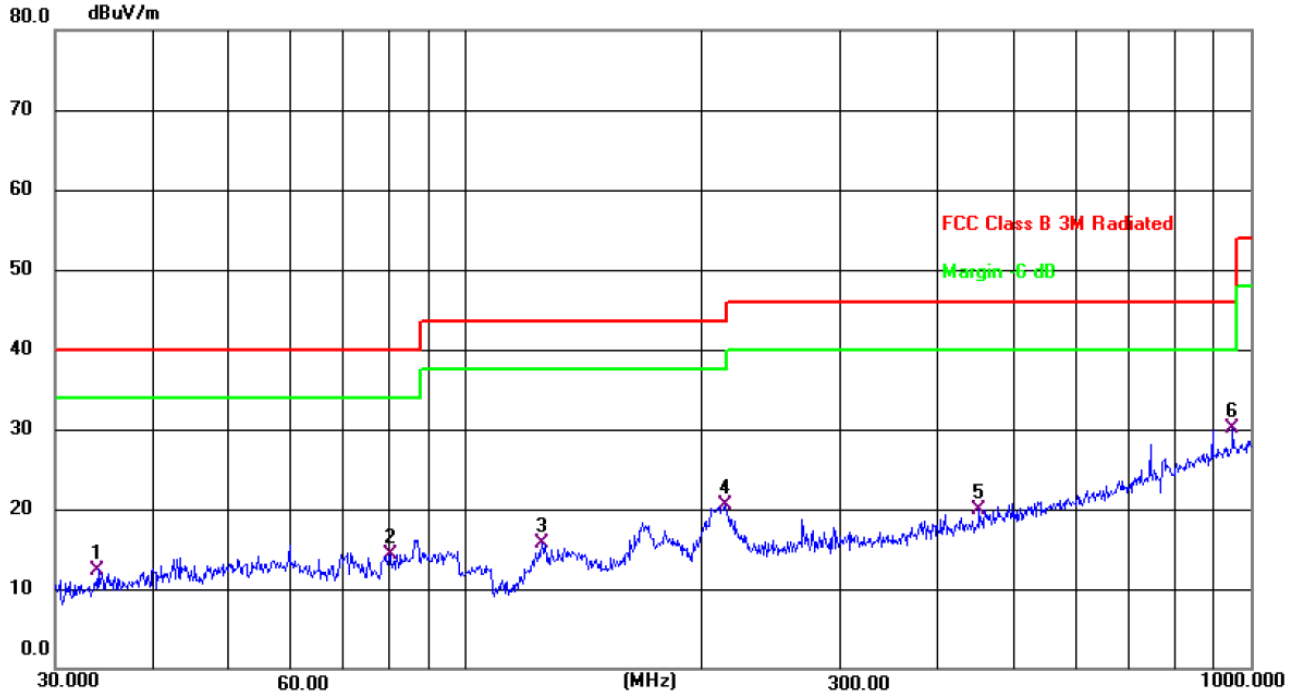
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		35.6239	36.69	-14.80	21.89	40.00	-18.11	QP
2		72.0843	35.67	-15.84	19.83	40.00	-20.17	QP
3	*	163.1818	50.74	-17.00	33.74	43.50	-9.76	QP
4		281.0074	36.86	-11.92	24.94	46.00	-21.06	QP
5		382.5878	41.10	-10.07	31.03	46.00	-14.97	QP
6		744.8660	36.63	-3.15	33.48	46.00	-12.52	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;

Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Vertical
test voltage :	DC 3.7V		
Test Mode :	Mode 4		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		34.0363	27.55	-15.15	12.40	40.00	-27.60	QP
2		80.0805	31.89	-17.55	14.34	40.00	-25.66	QP
3		125.0065	32.39	-16.72	15.67	43.50	-27.83	QP
4		213.7632	34.61	-14.19	20.42	43.50	-23.08	QP
5		451.1349	28.52	-8.64	19.88	46.00	-26.12	QP
6	*	948.7608	29.91	0.20	30.11	46.00	-15.89	QP

Remark:

Correct Factor = Cable loss + Antenna factor – Preamplifier;

Level = Reading Level + Correct Factor; Margin = Level - Limit;

3.2.8 TEST RESULTS (1ghz~40ghZ)

802.11a band 1

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	10360	55.90	49.05	15.3	37.39	59.54	68.2	-8.66	PK
V	10360	40.88	49.05	15.3	37.39	44.52	54	-9.48	AV
V	15540	56.18	49.16	15.27	40.45	62.74	74	-11.26	PK
V	15540	38.79	49.16	15.27	40.45	45.35	54	-8.65	AV
H	10360	55.52	49.05	15.3	37.39	59.16	68.2	-9.04	PK
H	10360	40.13	49.05	15.3	37.39	43.77	54	-10.23	AV
H	15540	58.65	49.16	15.27	40.45	65.21	74	-8.79	PK
H	15540	37.72	49.16	15.27	40.45	44.28	54	-9.72	AV
operation frequency:5200									
V	10400	56.92	49.09	15.34	37.42	60.59	68.2	-7.61	PK
V	10400	39.03	49.09	15.34	37.42	42.70	54	-11.30	AV
V	15600	58.94	49.18	15.29	40.47	65.52	74	-8.48	PK
V	15600	37.81	49.18	15.29	40.47	44.39	54	-9.61	AV
H	10400	56.43	49.09	15.34	37.42	60.10	68.2	-8.10	PK
H	10400	39.40	49.09	15.34	37.42	43.07	54	-10.93	AV
H	15600	58.95	49.18	15.29	40.47	65.53	74	-8.47	PK
H	15600	38.01	49.18	15.29	40.47	44.59	54	-9.41	AV
operation frequency:5240									
V	10480	58.05	49.11	15.37	37.46	61.77	68.2	-6.43	PK
V	10480	38.93	49.11	15.37	37.46	42.65	54	-11.35	AV
V	15720	58.62	49.21	15.34	40.51	65.26	74	-8.74	PK
V	15720	38.01	49.21	15.34	40.51	44.65	54	-9.35	AV
H	10480	56.78	49.11	15.37	31.31	54.35	68.2	-13.85	PK
H	10480	45.13	49.11	15.37	31.31	42.70	54	-11.30	AV
H	15720	56.98	49.21	15.34	40.51	63.62	74	-10.38	PK
H	15720	37.23	49.21	15.34	40.51	43.87	54	-10.13	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	10360	55.69	49.05	15.3	37.39	59.33	68.2	-8.87	PK
V	10360	38.30	49.05	15.3	37.39	41.94	54	-12.06	AV
V	15540	56.07	49.16	15.27	40.45	62.63	74	-11.37	PK
V	15540	37.95	49.16	15.27	40.45	44.51	54	-9.49	AV
H	10360	56.13	49.05	15.3	37.39	59.77	68.2	-8.43	PK
H	10360	39.04	49.05	15.3	37.39	42.68	54	-11.32	AV
H	15540	53.67	49.16	15.27	40.45	60.23	74	-13.77	PK
H	15540	38.00	49.16	15.27	40.45	44.56	54	-9.44	AV
operation frequency:5200									
V	10400	55.78	49.09	15.34	37.42	59.45	68.2	-8.75	PK
V	10400	39.02	49.09	15.34	37.42	42.69	54	-11.31	AV
V	15600	54.70	49.18	15.29	40.47	61.28	74	-12.72	PK
V	15600	37.91	49.18	15.29	40.47	44.49	54	-9.51	AV
H	10400	55.08	49.09	15.34	37.42	58.75	68.2	-9.45	PK
H	10400	40.39	49.09	15.34	37.42	44.06	54	-9.94	AV
H	15600	54.53	49.18	15.29	40.47	61.11	74	-12.89	PK
H	15600	38.95	49.18	15.29	40.47	45.53	54	-8.47	AV
operation frequency:5240									
V	10480	56.63	49.11	15.37	37.46	60.35	68.2	-7.85	PK
V	10480	40.19	49.11	15.37	37.46	43.91	54	-10.09	AV
V	15720	53.85	49.21	15.34	40.51	60.49	74	-13.51	PK
V	15720	38.34	49.21	15.34	40.51	44.98	54	-9.02	AV
H	10480	56.64	49.11	15.37	31.31	54.21	68.2	-13.99	PK
H	10480	44.27	49.11	15.37	31.31	41.84	54	-12.16	AV
H	15720	54.89	49.21	15.34	40.51	61.53	74	-12.47	PK
H	15720	38.90	49.21	15.34	40.51	45.54	54	-8.46	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5190									
V	10380	56.24	49.07	15.33	37.41	59.91	68.2	-8.29	PK
V	10380	38.90	49.07	15.33	37.41	42.57	54	-11.43	AV
V	15570	55.80	49.17	15.28	40.46	62.37	74	-11.63	PK
V	15570	38.05	49.17	15.28	40.46	44.62	54	-9.38	AV
H	10380	56.15	49.07	15.33	37.41	59.82	68.2	-8.38	PK
H	10380	40.01	49.07	15.33	37.41	43.68	54	-10.32	AV
H	15570	54.19	49.17	15.28	40.46	60.76	74	-13.24	PK
H	15570	37.91	49.17	15.28	40.46	44.48	54	-9.52	AV
operation frequency:5230									
V	10460	56.66	49.11	15.37	37.46	60.38	68.2	-7.82	PK
V	10460	39.33	49.11	15.37	37.46	43.05	54	-10.95	AV
V	15690	54.01	49.21	15.34	40.51	60.65	74	-13.35	PK
V	15690	38.00	49.21	15.34	40.51	44.64	54	-9.36	AV
H	10460	56.78	49.11	15.37	31.31	54.35	68.2	-13.85	PK
H	10460	44.45	49.11	15.37	31.31	42.02	54	-11.98	AV
H	15690	54.85	49.21	15.34	40.51	61.49	74	-12.51	PK
H	15690	38.73	49.21	15.34	40.51	45.37	54	-8.63	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	10360	56.30	49.05	15.3	37.39	59.94	68.2	-8.26	PK
V	10360	39.19	49.05	15.3	37.39	42.83	54	-11.17	AV
V	15540	55.65	49.16	15.27	40.45	62.21	74	-11.79	PK
V	15540	38.05	49.16	15.27	40.45	44.61	54	-9.39	AV
H	10360	55.64	49.05	15.3	37.39	59.28	68.2	-8.92	PK
H	10360	37.91	49.05	15.3	37.39	41.55	54	-12.45	AV
H	15540	53.81	49.16	15.27	40.45	60.37	74	-13.63	PK
H	15540	39.05	49.16	15.27	40.45	45.61	54	-8.39	AV
operation frequency:5200									
V	10400	56.08	49.09	15.34	37.42	59.75	68.2	-8.45	PK
V	10400	41.35	49.09	15.34	37.42	45.02	54	-8.98	AV
V	15600	55.11	49.18	15.29	40.47	61.69	74	-12.31	PK
V	15600	39.99	49.18	15.29	40.47	46.57	54	-7.43	AV
H	10400	54.70	49.09	15.34	37.42	58.37	68.2	-9.83	PK
H	10400	40.21	49.09	15.34	37.42	43.88	54	-10.12	AV
H	15600	54.59	49.18	15.29	40.47	61.17	74	-12.83	PK
H	15600	40.87	49.18	15.29	40.47	47.45	54	-6.55	AV
operation frequency:5240									
V	10480	56.98	49.11	15.37	37.46	60.70	68.2	-7.50	PK
V	10480	40.01	49.11	15.37	37.46	43.73	54	-10.27	AV
V	15720	53.71	49.21	15.34	40.51	60.35	74	-13.65	PK
V	15720	39.64	49.21	15.34	40.51	46.28	54	-7.72	AV
H	10480	56.94	49.11	15.37	31.31	54.51	68.2	-13.69	PK
H	10480	44.44	49.11	15.37	31.31	42.01	54	-11.99	AV
H	15720	55.35	49.21	15.34	40.51	61.99	74	-12.01	PK
H	15720	39.66	49.21	15.34	40.51	46.30	54	-7.70	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5190									
V	10380	55.97	49.07	15.33	37.41	59.64	68.2	-8.56	PK
V	10380	40.33	49.07	15.33	37.41	44.00	54	-10.00	AV
V	15570	55.75	49.17	15.28	40.46	62.32	74	-11.68	PK
V	15570	39.22	49.17	15.28	40.46	45.79	54	-8.21	AV
H	10380	55.98	49.07	15.33	37.41	59.65	68.2	-8.55	PK
H	10380	40.00	49.07	15.33	37.41	43.67	54	-10.33	AV
H	15570	53.74	49.17	15.28	40.46	60.31	74	-13.69	PK
H	15570	39.61	49.17	15.28	40.46	46.18	54	-7.82	AV
operation frequency:5230									
V	10460	56.78	49.11	15.37	37.46	60.50	68.2	-7.70	PK
V	10460	41.27	49.11	15.37	37.46	44.99	54	-9.01	AV
V	15690	53.90	49.21	15.34	40.51	60.54	74	-13.46	PK
V	15690	38.91	49.21	15.34	40.51	45.55	54	-8.45	AV
H	10460	56.63	49.11	15.37	31.31	54.20	68.2	-14.00	PK
H	10460	43.86	49.11	15.37	31.31	41.43	54	-12.57	AV
H	15690	54.70	49.21	15.34	40.51	61.34	74	-12.66	PK
H	15690	39.71	49.21	15.34	40.51	46.35	54	-7.65	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5210									
V	10420	55.72	49.07	15.33	37.41	59.39	68.2	-8.81	PK
V	10420	41.32	49.07	15.33	37.41	44.99	54	-9.01	AV
V	15630	55.67	49.17	15.28	40.46	62.24	74	-11.76	PK
V	15630	38.84	49.17	15.28	40.46	45.41	54	-8.59	AV
H	10420	55.67	49.07	15.33	37.41	59.34	68.2	-8.86	PK
H	10420	40.99	49.07	15.33	37.41	44.66	54	-9.34	AV
H	15630	53.61	49.17	15.28	40.46	60.18	74	-13.82	PK
H	15630	39.99	49.17	15.28	40.46	46.56	54	-7.44	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11a band 4

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	11490	53.76	49.05	15.3	37.39	57.40	74	-16.60	PK
V	11490	40.72	49.05	15.3	37.39	44.36	54	-9.64	AV
V	17235	54.91	49.16	15.27	40.45	61.47	68.2	-6.73	PK
V	17235	40.58	49.16	15.27	40.45	47.14	54	-6.86	AV
H	11490	51.92	49.05	15.3	37.39	55.56	74	-18.44	PK
H	11490	41.76	49.05	15.3	37.39	45.40	54	-8.60	AV
H	17235	50.89	49.16	15.27	40.45	57.45	68.2	-10.75	PK
H	17235	39.93	49.16	15.27	40.45	46.49	54	-7.51	AV
operation frequency:5785									
V	11570	51.21	49.09	15.34	37.42	54.88	74	-19.12	PK
V	11570	40.82	49.09	15.34	37.42	44.49	54	-9.51	AV
V	17355	49.90	49.18	15.29	40.47	56.48	68.2	-11.72	PK
V	17355	39.91	49.18	15.29	40.47	46.49	54	-7.51	AV
H	11570	50.24	49.09	15.34	37.42	53.91	74	-20.09	PK
H	11570	41.65	49.09	15.34	37.42	45.32	54	-8.68	AV
H	17355	48.35	49.18	15.29	40.47	54.93	68.2	-13.27	PK
H	17355	39.80	49.18	15.29	40.47	46.38	54	-7.62	AV
operation frequency:5825									
V	11650	51.61	49.11	15.37	37.46	55.33	74	-18.67	PK
V	11650	41.02	49.11	15.37	37.46	44.74	54	-9.26	AV
V	17475	48.81	49.21	15.34	40.51	55.45	68.2	-12.75	PK
V	17475	40.08	49.21	15.34	40.51	46.72	54	-7.28	AV
H	11650	56.98	49.11	15.37	31.31	54.55	74	-19.45	PK
H	11650	47.59	49.11	15.37	31.31	45.16	54	-8.84	AV
H	17475	48.95	49.21	15.34	40.51	55.59	68.2	-12.61	PK
H	17475	39.81	49.21	15.34	40.51	46.45	54	-7.55	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	11490	48.85	49.05	15.3	37.39	52.49	74	-21.51	PK
V	11490	41.74	49.05	15.3	37.39	45.38	54	-8.62	AV
V	17235	48.14	49.16	15.27	40.45	54.70	68.2	-13.50	PK
V	17235	39.92	49.16	15.27	40.45	46.48	54	-7.52	AV
H	11490	48.92	49.05	15.3	37.39	52.56	74	-21.44	PK
H	11490	40.77	49.05	15.3	37.39	44.41	54	-9.59	AV
H	17235	47.86	49.16	15.27	40.45	54.42	68.2	-13.78	PK
H	17235	40.06	49.16	15.27	40.45	46.62	54	-7.38	AV
operation frequency:5785									
V	11570	51.92	49.09	15.34	37.42	55.59	74	-18.41	PK
V	11570	41.86	49.09	15.34	37.42	45.53	54	-8.47	AV
V	17355	48.71	49.18	15.29	40.47	55.29	68.2	-12.91	PK
V	17355	40.18	49.18	15.29	40.47	46.76	54	-7.24	AV
H	11570	48.95	49.09	15.34	37.42	52.62	74	-21.38	PK
H	11570	43.25	49.09	15.34	37.42	46.92	54	-7.08	AV
H	17355	48.91	49.18	15.29	40.47	55.49	68.2	-12.71	PK
H	17355	40.37	49.18	15.29	40.47	46.95	54	-7.05	AV
operation frequency:5825									
V	11650	50.83	49.11	15.37	37.46	54.55	74	-19.45	PK
V	11650	41.07	49.11	15.37	37.46	44.79	54	-9.21	AV
V	17475	47.83	49.21	15.34	40.51	54.47	68.2	-13.73	PK
V	17475	40.29	49.21	15.34	40.51	46.93	54	-7.07	AV
H	11650	56.73	49.11	15.37	31.31	54.30	74	-19.70	PK
H	11650	43.98	49.11	15.37	31.31	41.55	54	-12.45	AV
H	17475	48.83	49.21	15.34	40.51	55.47	68.2	-12.73	PK
H	17475	40.29	49.21	15.34	40.51	46.93	54	-7.07	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5755									
V	11510	48.70	49.07	15.33	37.41	52.37	74	-21.63	PK
V	11510	41.22	49.07	15.33	37.41	44.89	54	-9.11	AV
V	17265	49.22	49.17	15.28	40.46	55.79	68.2	-12.41	PK
V	17265	39.88	49.17	15.28	40.46	46.45	54	-7.55	AV
H	11510	47.95	49.07	15.33	37.41	51.62	74	-22.38	PK
H	11510	40.79	49.07	15.33	37.41	44.46	54	-9.54	AV
H	17265	49.50	49.17	15.28	40.46	56.07	68.2	-12.13	PK
H	17265	39.89	49.17	15.28	40.46	46.46	54	-7.54	AV
operation frequency:5795									
V	11590	48.69	49.11	15.37	37.46	52.41	74	-21.59	PK
V	11590	40.92	49.11	15.37	37.46	44.64	54	-9.36	AV
V	17385	48.01	49.21	15.34	40.51	54.65	68.2	-13.55	PK
V	17385	40.00	49.21	15.34	40.51	46.64	54	-7.36	AV
H	11590	57.04	49.11	15.37	31.31	54.61	74	-19.39	PK
H	11590	44.40	49.11	15.37	31.31	41.97	54	-12.03	AV
H	17385	47.72	49.21	15.34	40.51	54.36	68.2	-13.84	PK
H	17385	39.88	49.21	15.34	40.51	46.52	54	-7.48	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5745									
V	11490	48.95	49.05	15.3	37.39	52.59	74	-21.41	PK
V	11490	42.07	49.05	15.3	37.39	45.71	54	-8.29	AV
V	17235	48.20	49.16	15.27	40.45	54.76	68.2	-13.44	PK
V	17235	39.93	49.16	15.27	40.45	46.49	54	-7.51	AV
H	11490	48.04	49.05	15.3	37.39	51.68	74	-22.32	PK
H	11490	41.01	49.05	15.3	37.39	44.65	54	-9.35	AV
H	17235	47.82	49.16	15.27	40.45	54.38	68.2	-13.82	PK
H	17235	40.08	49.16	15.27	40.45	46.64	54	-7.36	AV
operation frequency:5785									
V	11570	47.99	49.09	15.34	37.42	51.66	74	-22.34	PK
V	11570	41.52	49.09	15.34	37.42	45.19	54	-8.81	AV
V	17355	48.73	49.18	15.29	40.47	55.31	68.2	-12.89	PK
V	17355	40.07	49.18	15.29	40.47	46.65	54	-7.35	AV
H	11570	49.25	49.09	15.34	37.42	52.92	74	-21.08	PK
H	11570	42.76	49.09	15.34	37.42	46.43	54	-7.57	AV
H	17355	48.90	49.18	15.29	40.47	55.48	68.2	-12.72	PK
H	17355	40.45	49.18	15.29	40.47	47.03	54	-6.97	AV
operation frequency:5825									
V	11650	48.75	49.11	15.37	37.46	52.47	74	-21.53	PK
V	11650	41.00	49.11	15.37	37.46	44.72	54	-9.28	AV
V	17475	47.73	49.21	15.34	40.51	54.37	68.2	-13.83	PK
V	17475	40.28	49.21	15.34	40.51	46.92	54	-7.08	AV
H	11650	57.24	49.11	15.37	31.31	54.81	74	-19.19	PK
H	11650	43.88	49.11	15.37	31.31	41.45	54	-12.55	AV
H	17475	47.94	49.21	15.34	40.51	54.58	68.2	-13.62	PK
H	17475	40.22	49.21	15.34	40.51	46.86	54	-7.14	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5755									
V	11510	48.79	49.07	15.33	37.41	52.46	74	-21.54	PK
V	11510	42.47	49.07	15.33	37.41	46.14	54	-7.86	AV
V	17265	48.21	49.17	15.28	40.46	54.78	68.2	-13.42	PK
V	17265	40.81	49.17	15.28	40.46	47.38	54	-6.62	AV
H	11510	47.92	49.07	15.33	37.41	51.59	74	-22.41	PK
H	11510	42.09	49.07	15.33	37.41	45.76	54	-8.24	AV
H	17265	48.43	49.17	15.28	40.46	55.00	68.2	-13.20	PK
H	17265	39.88	49.17	15.28	40.46	46.45	54	-7.55	AV
operation frequency:5795									
V	11590	49.01	49.11	15.37	37.46	52.73	74	-21.27	PK
V	11590	41.00	49.11	15.37	37.46	44.72	54	-9.28	AV
V	17385	47.76	49.21	15.34	40.51	54.40	68.2	-13.80	PK
V	17385	40.27	49.21	15.34	40.51	46.91	54	-7.09	AV
H	11590	56.74	49.11	15.37	31.31	54.31	74	-19.69	PK
H	11590	44.37	49.11	15.37	31.31	41.94	54	-12.06	AV
H	17385	47.86	49.21	15.34	40.51	54.50	68.2	-13.70	PK
H	17385	39.79	49.21	15.34	40.51	46.43	54	-7.57	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5775									
V	11550	47.91	49.07	15.33	37.41	51.58	74	-22.42	PK
V	11550	42.51	49.07	15.33	37.41	46.18	54	-7.82	AV
V	17325	49.21	49.17	15.28	40.46	55.78	68.2	-12.42	PK
V	17325	39.78	49.17	15.28	40.46	46.35	54	-7.65	AV
H	11550	47.95	49.07	15.33	37.41	51.62	74	-22.38	PK
H	11550	40.90	49.07	15.33	37.41	44.57	54	-9.43	AV
H	17325	48.06	49.17	15.28	40.46	54.63	68.2	-13.57	PK
H	17325	40.29	49.17	15.28	40.46	46.86	54	-7.14	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.3 RADIATED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

RSS-247 Section 5.5

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	5000MHz
Stop Frequency	5420MHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

3.3.2 TEST PROCEDURE

Above 1GHz test procedure as below:

a. 1. The EUT was placed on the top of a rotating table 0.1 meters above the ground at a 3 meter camber. 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 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 rota 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.

g. Test the EUT in the lowest channel,the Highest channel

Note:

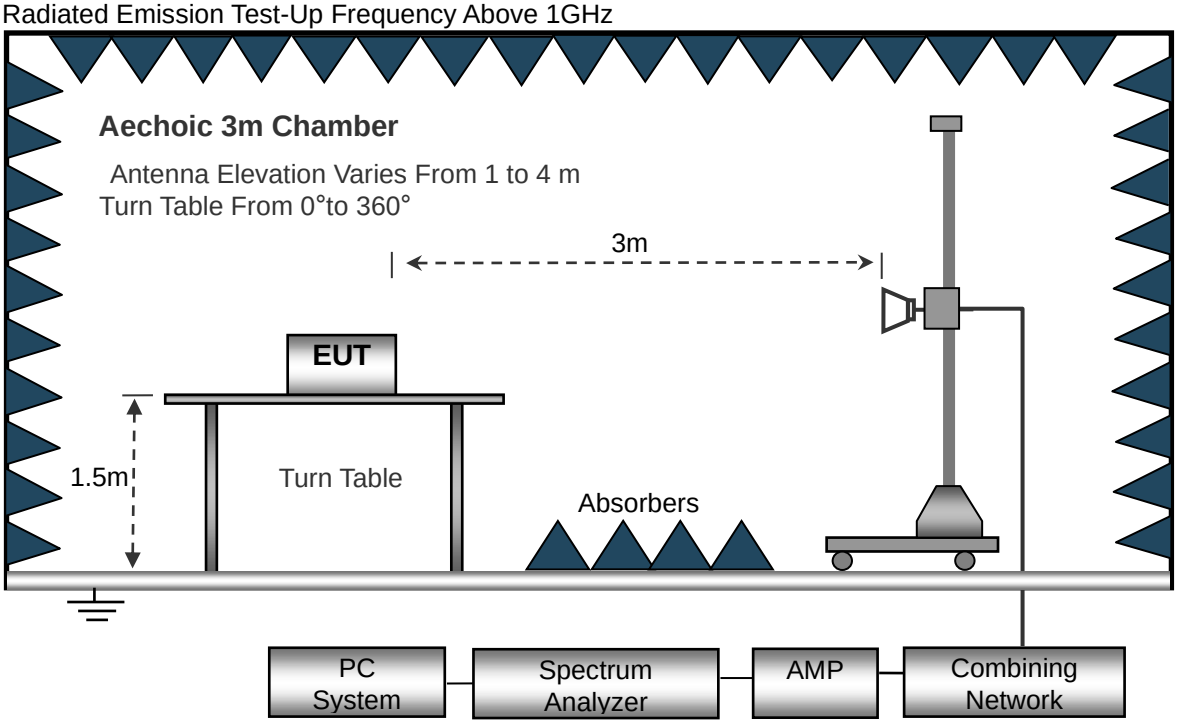
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



3.3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.3.6 TEST RESULT

802.11a

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	5150	52.67	49.12	15.6	37.34	56.49	74	-17.51	PK
V	5150	38.98	49.12	15.6	37.34	42.80	54	-11.20	AV
V	5145	53.77	49.19	15.24	40.43	60.25	74	-13.75	PK
V	5145	36.06	49.19	15.24	40.43	42.54	54	-11.46	AV
H	5150	52.46	49.12	15.6	37.34	56.28	74	-17.72	PK
H	5150	37.21	49.12	15.6	37.34	41.03	54	-12.97	AV
H	5145	53.91	49.19	15.24	40.43	60.39	74	-13.61	PK
H	5145	32.90	49.19	15.24	40.43	39.38	54	-14.62	AV
operation frequency:5240									
V	5350	52.68	49.13	15.32	37.46	56.33	74	-17.67	PK
V	5350	35.12	49.13	15.32	37.46	38.77	54	-15.23	AV
V	5370	52.82	49.24	15.36	40.51	59.45	74	-14.55	PK
V	5370	31.96	49.24	15.36	40.51	38.59	54	-15.41	AV
H	5350	51.71	49.13	15.32	31.31	49.21	74	-24.79	PK
H	5350	39.92	49.13	15.32	31.31	37.42	54	-16.58	AV
H	5370	51.98	49.24	15.36	40.51	58.61	74	-15.39	PK
H	5370	32.25	49.24	15.36	40.51	38.88	54	-15.12	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	5150	50.83	49.12	15.6	37.34	54.65	74	-19.35	PK
V	5150	32.87	49.12	15.6	37.34	36.69	54	-17.31	AV
V	5145	50.99	49.19	15.24	40.43	57.47	74	-16.53	PK
V	5145	32.84	49.19	15.24	40.43	39.32	54	-14.68	AV
H	5150	50.84	49.12	15.6	37.34	54.66	74	-19.34	PK
H	5150	33.19	49.12	15.6	37.34	37.01	54	-16.99	AV
H	5145	49.70	49.19	15.24	40.43	56.18	74	-17.82	PK
H	5145	32.38	49.19	15.24	40.43	38.86	54	-15.14	AV
operation frequency:5240									
V	5350	52.71	49.13	15.32	37.46	56.36	74	-17.64	PK
V	5350	33.89	49.13	15.32	37.46	37.54	54	-16.46	AV
V	5370	49.78	49.24	15.36	40.51	56.41	74	-17.59	PK
V	5370	33.22	49.24	15.36	40.51	39.85	54	-14.15	AV
H	5350	53.69	49.13	15.32	31.31	51.19	74	-22.81	PK
H	5350	35.92	49.13	15.32	31.31	33.42	54	-20.58	AV
H	5370	50.77	49.24	15.36	40.51	57.40	74	-16.60	PK
H	5370	33.03	49.24	15.36	40.51	39.66	54	-14.34	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5180									
V	5150	51.73	49.12	15.33	37.41	55.35	74	-18.65	PK
V	5150	34.24	49.12	15.33	37.41	37.86	54	-16.14	AV
V	5145	50.78	49.19	15.28	40.46	57.33	74	-16.67	PK
V	5145	33.39	49.19	15.28	40.46	39.94	54	-14.06	AV
H	5150	51.98	49.12	15.33	37.41	55.60	74	-18.40	PK
H	5150	34.33	49.12	15.33	37.41	37.95	54	-16.05	AV
H	5145	50.00	49.19	15.28	40.46	56.55	74	-17.45	PK
H	5145	33.22	49.19	15.28	40.46	39.77	54	-14.23	AV
operation frequency:5240									
V	5350	53.21	49.13	15.32	37.46	56.86	74	-17.14	PK
V	5350	36.01	49.13	15.32	37.46	39.66	54	-14.34	AV
V	5370	49.73	49.24	15.36	40.51	56.36	74	-17.64	PK
V	5370	33.36	49.24	15.36	40.51	39.99	54	-14.01	AV
H	5350	52.66	49.13	15.32	31.31	50.16	74	-23.84	PK
H	5350	40.39	49.13	15.32	31.31	37.89	54	-16.11	AV
H	5370	51.36	49.24	15.36	40.51	57.99	74	-16.01	PK
H	5370	35.08	49.24	15.36	40.51	41.71	54	-12.29	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5190									
V	5150	51.69	49.12	15.6	37.39	55.56	74	-18.44	PK
V	5150	35.16	49.12	15.6	37.39	39.03	54	-14.97	AV
V	5145	51.06	49.19	15.24	40.45	57.56	74	-16.44	PK
V	5145	34.36	49.19	15.24	40.45	40.86	54	-13.14	AV
H	5150	52.21	49.12	15.6	37.39	56.08	74	-17.92	PK
H	5150	34.45	49.12	15.6	37.39	38.32	54	-15.68	AV
H	5145	49.69	49.19	15.24	40.45	56.19	74	-17.81	PK
H	5145	35.37	49.19	15.24	40.45	41.87	54	-12.13	AV
operation frequency:5230									
V	5350	53.18	49.13	15.34	37.46	56.85	74	-17.15	PK
V	5350	37.28	49.13	15.34	37.46	40.95	54	-13.05	AV
V	5370	49.79	49.24	15.35	40.51	56.41	74	-17.59	PK
V	5370	36.05	49.24	15.35	40.51	42.67	54	-11.33	AV
H	5350	53.77	49.13	15.34	31.31	51.29	74	-22.71	PK
H	5350	40.87	49.13	15.34	31.31	38.39	54	-15.61	AV
H	5370	52.21	49.24	15.35	40.51	58.83	74	-15.17	PK
H	5370	36.54	49.24	15.35	40.51	43.16	54	-10.84	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5190									
V	5150	52.37	49.12	15.32	37.41	55.98	74	-18.02	PK
V	5150	37.35	49.12	15.32	37.41	40.96	54	-13.04	AV
V	5145	51.98	49.19	15.36	40.46	58.61	74	-15.39	PK
V	5145	36.20	49.19	15.36	40.46	42.83	54	-11.17	AV
H	5150	52.48	49.12	15.32	37.41	56.09	74	-17.91	PK
H	5150	37.30	49.12	15.32	37.41	40.91	54	-13.09	AV
H	5145	50.82	49.19	15.36	40.46	57.45	74	-16.55	PK
H	5145	36.32	49.19	15.36	40.46	42.95	54	-11.05	AV
operation frequency:5230									
V	5350	54.14	49.13	15.34	37.34	57.69	74	-16.31	PK
V	5350	35.96	49.13	15.34	37.34	39.51	54	-14.49	AV
V	5370	51.01	49.24	15.35	40.43	57.55	74	-16.45	PK
V	5370	36.62	49.24	15.35	40.43	43.16	54	-10.84	AV
H	5350	54.24	49.13	15.34	37.34	57.79	74	-16.21	PK
H	5350	41.02	49.13	15.34	37.34	44.57	54	-9.43	AV
H	5370	49.79	49.24	15.35	40.43	56.33	74	-17.67	PK
H	5370	35.53	49.24	15.35	40.43	42.07	54	-11.93	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11ac HT80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
operation frequency:5210									
V	5350	51.72	49.13	15.32	37.48	55.39	74	-18.61	PK
V	5350	35.52	49.13	15.32	37.48	39.19	54	-14.81	AV
V	5370	50.79	49.24	15.36	40.42	57.33	74	-16.67	PK
V	5370	35.32	49.24	15.36	40.42	41.86	54	-12.14	AV
H	5350	52.02	49.13	15.32	37.48	55.69	74	-18.31	PK
H	5350	35.92	49.13	15.32	37.48	39.59	54	-14.41	AV
H	5370	49.79	49.24	15.36	40.42	56.33	74	-17.67	PK
H	5370	34.96	49.24	15.36	40.42	41.50	54	-12.50	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.3 CONDUCTED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

FCC Part15 C Section 15.209 and 15.407

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band: 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 10dBm/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.

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	5150MHz	5725MHz
Stop Frequency	5250MHz	5850MHz
RB / VB (emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 10Hz for Average	

3.3.2 TEST PROCEDURE

Test method: FCC KDB 789033 G)& Parts 15.407(b)(4) & 15.209(a)

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP

3.3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.3.6 TEST RESULT

Please see annex 2.

4. AVERAGING OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

4.1.1 TEST PROCEDURE

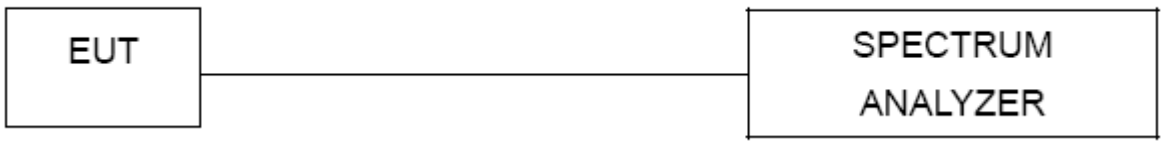
a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,

b. (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
(ii) Set RBW = 1 MHz.
(iii) Set VBW ⩾ 3 MHz.
(iv) Number of points in sweep ⩾ 2 × span / RBW. (This ensures that bin-to-bin spacing is ⩽ RBW/2, so that narrowband signals are not lost between frequency bins.)
(v) Sweep time = auto.
(vi) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
(vii) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ⩾ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.”
(viii) Trace average at least 100 traces in power averaging (rms) mode.
(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5 TEST RESULTS

Please see annex 2.

5. POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.
In addition, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW ≥ 1MHz for band 1 RBW ≥ 510KHz for band 4
VB	VBW ≥ 3RBW
Detector	RMS (i.e., power averaging).
Trace	Max Hold
Sweep Time	Auto

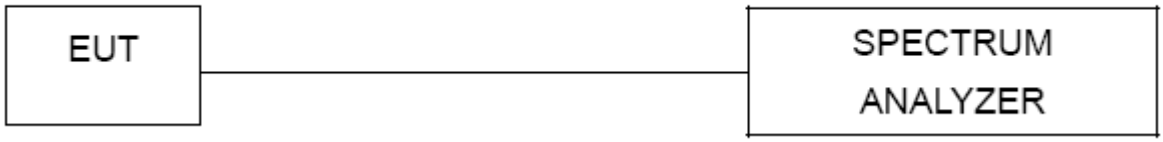
5.1.1 TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
4. For U-NII1, U-NII-2A, U-NII-2C Band:
Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
For U-NII-3 Band:
Set RBW=510 kHz, VBW=3*RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
5. User the cursor on spectrum to peak search the highest level of trace
6. Record the max. reading and add 10 log(1/duty cycle).
   we test all antennas, the antenna 1 was worst mode and the data recording in the report.
7. Duty factor Reference is made to the test results in Section 7.1.5.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

Please see annex 2.

6. 6DB&26DB&99% BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

The 26 dB bandwidth is used to determine the conducted power limits. There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C. The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

6.1.1 TEST PROCEDURE

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

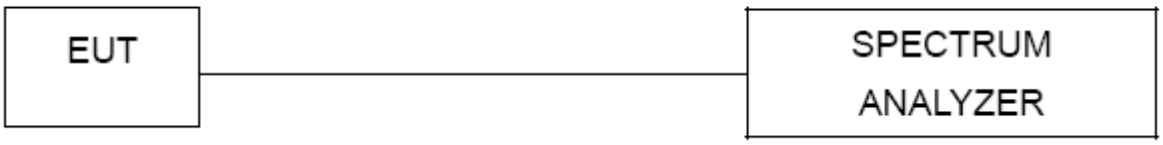
26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	Approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

Please see annex 2.

7. DUTY CYCLE TEST SIGNAL

7.1 APPLIED PROCEDURES / LIMIT

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

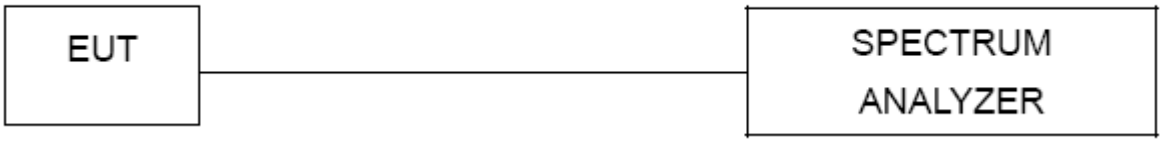
7.1.1 TEST PROCEDURE

1. Set RBW = 1 MHz.
2. Set the video bandwidth (VBW) ≥RBW.
3. Detector = Peak.
4. Sweep = auto couple.
5. Allow the trace to stabilize.
6. Span=0

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.5 TEST RESULTS

Please see annex 2.

8. FREQUENCY STABILITY

8.1 APPLIED PROCEDURES / LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

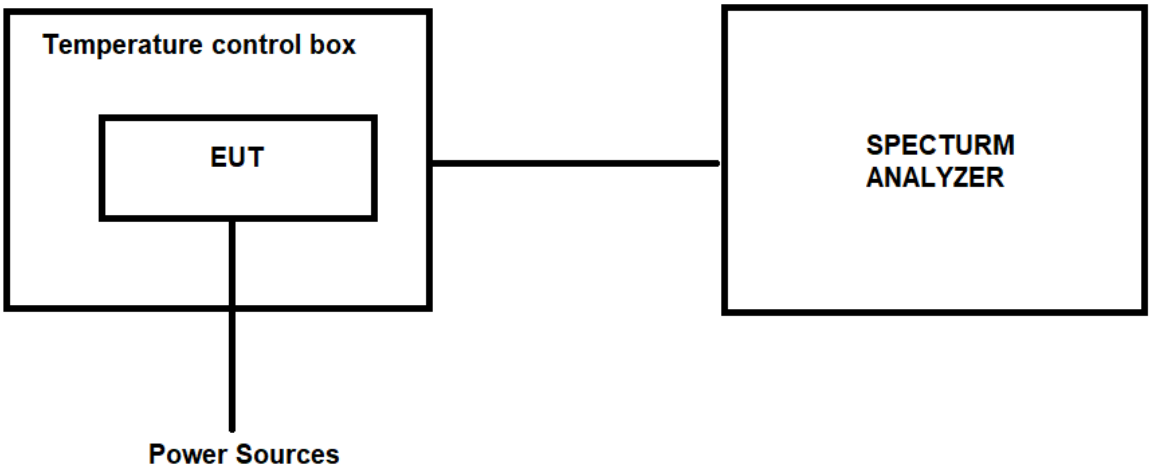
8.1.1 TEST PROCEDURE

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.5 TEST RESULTS

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz) 802.11a	802.11n HT20	802.11ac HT20	Δ Frequency (MHz) 802.11a	802.11n HT20	802.11ac HT20
4.26V	-20℃	5180	5180.0297	5180.0318	5180.0327	0.0297	0.0318	0.0327
		5220	5220.0311	5220.0329	5220.0327	0.0311	0.0329	0.0327
		5240	5240.0199	5240.0177	5240.0218	0.0199	0.0177	0.0218
		5745	5745.0327	5745.0308	5745.0276	0.0327	0.0308	0.0276
		5785	5785.0345	5785.0295	5785.0284	0.0345	0.0295	0.0284
		5825	5825.0324	5825.0322	5825.0300	0.0324	0.0322	0.0300
3.15V		5180	5180.0240	5180.0189	5180.0196	0.0240	0.0189	0.0196
		5220	5220.0305	5220.0349	5220.0321	0.0305	0.0349	0.0321
		5240	5240.0209	5240.0231	5240.0189	0.0209	0.0231	0.0189
		5745	5745.0224	5745.0184	5745.0258	-0.0224	-0.0184	-0.0258
		5785	5785.0287	5785.0346	5785.0284	-0.0287	-0.0346	-0.0284
		5825	5825.0373	5825.0384	5825.0372	-0.0373	-0.0384	-0.0372
3.7V	25℃	5180	5180.0487	5180.0479	5180.0499	0.0487	0.0479	-0.0535
		5220	5220.0231	5220.0209	5220.0209	0.0231	0.0209	0.0499
		5240	5240.0317	5240.0277	5240.0330	0.0317	0.0277	0.0209
		5745	5745.0296	5745.0289	5745.0304	0.0296	0.0289	0.0330
		5785	5785.0447	5785.0375	5785.0424	0.0447	0.0375	0.0304
		5825	5825.0203	5825.0235	5825.0187	0.0203	0.0235	0.0424
4.26V	50℃	5180	5180.0279	5180.0328	5180.0328	0.0279	0.0328	0.0187
		5220	5220.0198	5220.0206	5220.0219	0.0198	0.0206	0.0328
		5240	5240.0329	5240.0319	5240.0331	0.0329	0.0319	0.0219
		5745	5745.0638	5745.0591	5745.0635	-0.0638	-0.0591	0.0331
		5785	5785.0424	5785.0382	5785.0426	-0.0424	-0.0382	-0.0635
		5825	5825.0615	5825.0586	5825.0624	-0.0615	-0.0586	-0.0426
3.15V	50℃	5180	5180.0331	5180.0287	5180.0307	-0.0331	-0.0287	-0.0624
		5220	5220.0208	5220.0228	5220.0228	-0.0208	-0.0228	-0.0307
		5240	5240.0279	5240.0321	5240.0279	-0.0279	-0.0321	-0.0228
		5745	5745.0427	5745.0393	5745.0418	-0.0427	-0.0393	-0.0279
		5785	5785.0214	5785.0214	5785.0224	-0.0214	-0.0214	-0.0418
		5825	5825.0680	5825.0698	5825.0701	-0.0680	-0.0698	-0.0224

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11n HT40	802.11ac HT40	802.11n HT40	802.11ac HT40
4.26V	-20℃	5190	5190.0230	5190.0200	0.0230	0.0200
		5230	5230.0321	5230.0327	0.0321	0.0327
		5755	5755.0505	5755.0513	0.0505	0.0513
		5795	5795.0605	5795.0574	0.0605	0.0574
3.15V		5190	5190.0222	5190.0196	0.0222	0.0196
		5230	5230.0328	5230.0307	0.0328	0.0307
		5755	5755.0204	5755.0626	0.0204	0.0626
		5795	5795.0404	5795.0444	0.0404	0.0444
3.7V	25℃	5190	5190.0241	5190.0218	0.0241	0.0218
		5230	5230.0596	5230.0615	-0.0596	-0.0615
		5755	5755.0214	5755.0194	-0.0214	-0.0194
		5795	5795.0523	5795.0497	-0.0523	-0.0497
4.26V	50℃	5190	5190.0619	5190.0608	-0.0619	-0.0608
		5230	5230.0529	5230.0516	-0.0529	-0.0516
		5755	5755.0425	5755.0395	-0.0425	-0.0395
		5795	5795.0293	5795.0285	-0.0293	-0.0285
3.15V	50℃	5190	5190.0532	5190.0508	-0.0532	-0.0508
		5230	5230.0299	5230.0297	-0.0299	-0.0297
		5755	5755.0284	5755.0294	-0.0284	-0.0294
		5795	5795.0423	5795.0405	-0.0423	-0.0405

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
			802.11ac HT80	802.11ac HT80
4.26V	-20℃	5210	5210.0100	0.0100
		5775	5775.0128	0.0128
3.15V		5210	5210.0208	0.0208
		5775	5775.0283	0.0283
3.7V	25℃	5210	5210.0439	0.0439
		5775	5775.0324	0.0324
4.26V	50℃	5210	5210.0309	0.0309
		5775	5775.0226	0.0226
3.15V	50℃	5210	5210.0301	0.0301
		5775	5775.0504	-0.0504

9. TRANSMISSION IN THE ABSENCE OF DATA

9.1 STANDARD REQUIREMENT

According to §15.407(c)
The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

9.2 TEST RESULT

No non-compliance noted:
Refer to the theory of operation.

10. ANTENNA REQUIREMENT

10.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

10.2 EUT ANTENNA

The EUT antenna is Internal Antenna, It comply with the standard requirement.

11. TEST SETUP PHOTO

Please see setup photos.

12. EUT PHOTO

Please see external photos and internal photos.

※※※※※ **END OF REPORT** ※※※※※