FCC Part 15E Test Report
FCC ID: 2BR3I-FS330P

Applicant:	Hunan Chuangke Photoelectric Co. LTD
Address:	No.9 Factory Building, Electronic Information Manufacturing Base, No.199, Aviation Road, Wangcheng District, Changsha city, Hunan Province
Manufacturer:	Hunan Chuangke Photoelectric Co. LTD
Address:	No.9 Factory Building, Electronic Information Manufacturing Base, No.199, Aviation Road, Wangcheng District, Changsha city, Hunan Province
Product:	Projector
Trade Mark:	N/A
Model No.:	FS330P, F1, F1L, F1E, F1S
Date of Receipt:	Nov. 05, 2025
Test Date:	Nov. 05, 2025 - Nov. 21, 2025
Date of Report:	Nov. 21, 2025
Prepared By:	Shenzhen DL Testing Technology Co., Ltd.
Address:	101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
Applicable Standards:	FCC PART 15 E 15.407 ANSI C63.10:2020 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test Result:	Pass
Report Number:	DLE-251105050R

Prepared (Test Engineer):	Ken Tan
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), 15.205, 15.209	Radiated Spurious Emission	PASS	
15.407(b), 15.205, 15.209	Band Edge Emission	PASS	
15.407 (a)	Maximum Conducted Output Power	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.407(a) (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, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, 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(<30MHz)	±3.54dB
5	All emissions,radiated(<1G)	±3.65dB
6	All emissions,radiated(>1G)	±4.89dB
7	Occupied bandwidth	±0.2%
8	PSD	±0.69dB
9	Temperature	±0.5°C
10	Humidity	±2%
11	Time	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Projector
Trademark	N/A
Model No.:	FS330P, F1, F1L, F1E, F1S
Model Difference	All models are same as the samples except model name, appearance color, they have the same structure and circuit.
Operation Frequency:	5180-5240, 5745-5825MHz(802.11a/n/ac/ax(HT20/HE20)) 5190-5230, 5755-5795MHz(802.11n/ac/ax(HT40//HE40))
Channel numbers:	See channel list
Channel separation:	5MHz
Modulation technology:	802.11a(OFDM): BPSK, QPSK, 16-QAM, 64-QAM 802.11n(OFDM): BPSK, QPSK, 16-QAM, 64-QAM 802.11ac(OFDM): BPSK, QPSK, 16-QAM, 64-QAM 802.11ax(OFDMA): BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Rate of Transmitter	802.11a: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps 802.11n: Up to 300Mbps 802.11ac/ax: up to 867Mbps
Antenna Type:	Internal Antenna
Antenna gain:	1.92dBi
Power Supply:	100-240V～ 50/60Hz

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.

3.The product supports only the SU mode.

2. Channel List

Channel List for 802.11a/n(HT20)/ac(HT20)/ax(HE20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

Channel List for 802.11n(HT40)/ac(HT40)/ax(HE40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

Channel List for 802.11a/n(HT20)/ac(HT20)/ax(HE20)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

Channel List for 802.11n(HT40)/ac(HT40)/ax(HE40)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

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/axHE20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40/ axHE40	CH38, CH46	CH151, CH159
Mode 3	Link Mode		

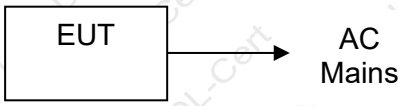
For Conducted & Radiated Emission			
Pretest Mode	Channel	Band 1	Band 4
Mode 1	802.11a/n/acHT20/axHE20	CH36, CH44, CH48	CH149, CH157, CH165
Mode 2	802.11n/acHT40/ axHE40	CH38, CH46	CH151, CH159
Mode 3	Link Mode		

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

Power line conducted 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

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: RF Test_V2.1			
Mode	802.11a	802.11n HT20	802.11n HT40	802.11ac HT20/ ax HE20/ac HT40/ ax HE40
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	Oct. 25, 2025	Oct. 24, 2026
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Oct. 25, 2025	Oct. 24, 2026
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Oct. 25, 2025	Oct. 24, 2026
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 25, 2025	Oct. 24, 2026
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Oct. 25, 2025	Oct. 24, 2026
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Oct. 25, 2025	Oct. 24, 2026
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Oct. 25, 2025	Oct. 24, 2026
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Oct. 25, 2025	Oct. 24, 2026
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Oct. 25, 2025	Oct. 24, 2026
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Oct. 25, 2025	Oct. 24, 2026
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Oct. 25, 2025	Oct. 24, 2026
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Oct. 25, 2025	Oct. 24, 2026
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Oct. 25, 2025	Oct. 24, 2026
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Oct. 25, 2025	Oct. 24, 2026
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Oct. 25, 2025	Oct. 24, 2026
16	D.C. Power Supply	LongWei	PS-305D	010964729	Oct. 25, 2025	Oct. 24, 2026
17	Temperature & humidity chamber	Changfeng	CF-150-40-P	CF170802-01	Oct. 25, 2025	Oct. 24, 2026

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Oct. 25, 2025	Oct. 24, 2026
3	LISN	R&S	ENV216	102417	Oct. 25, 2025	Oct. 24, 2026
4	843 Cable 1#	ChengYu	CE Cable	001	Oct. 25, 2025	Oct. 24, 2026

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.

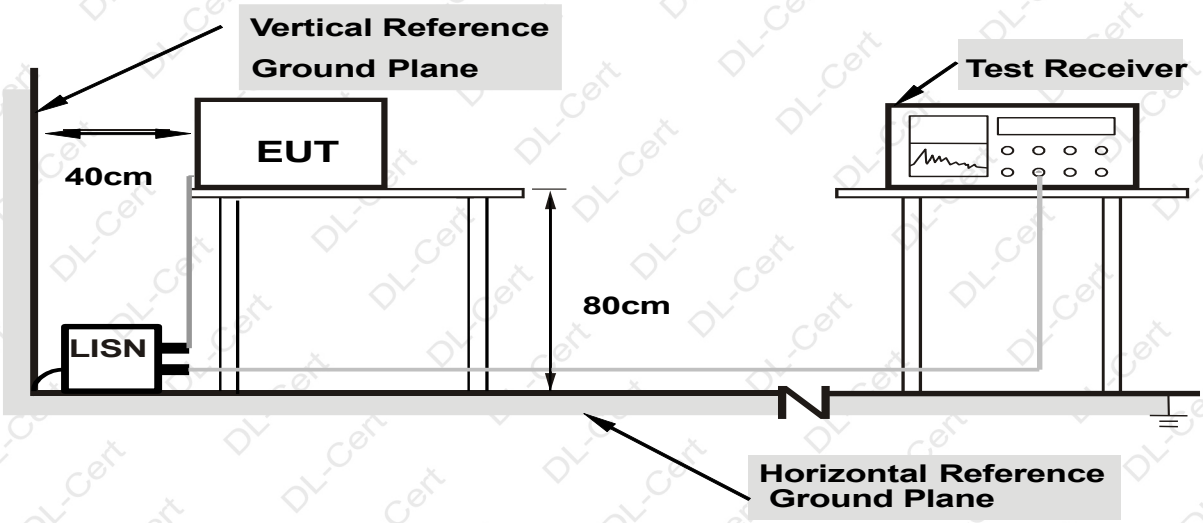
d. LISN at least 80 cm from nearest part of EUT chassis.

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

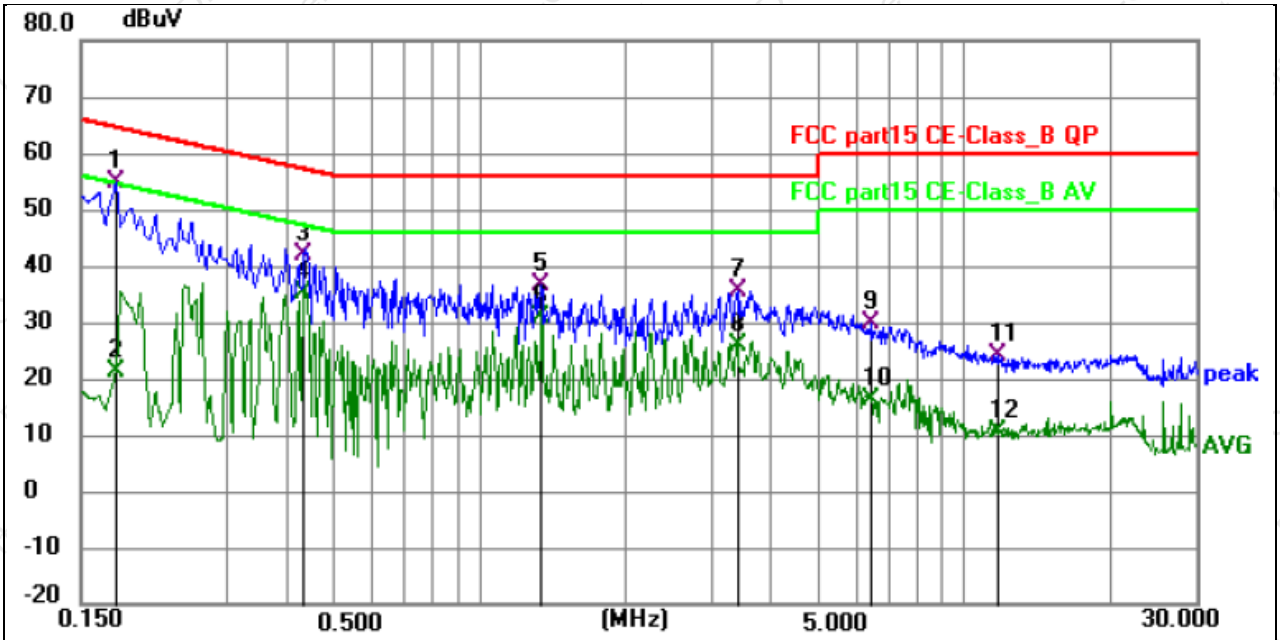
3.1.5 EUT OPERATING CONDITIONS

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

PASS
Please refer to the following page.

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 3

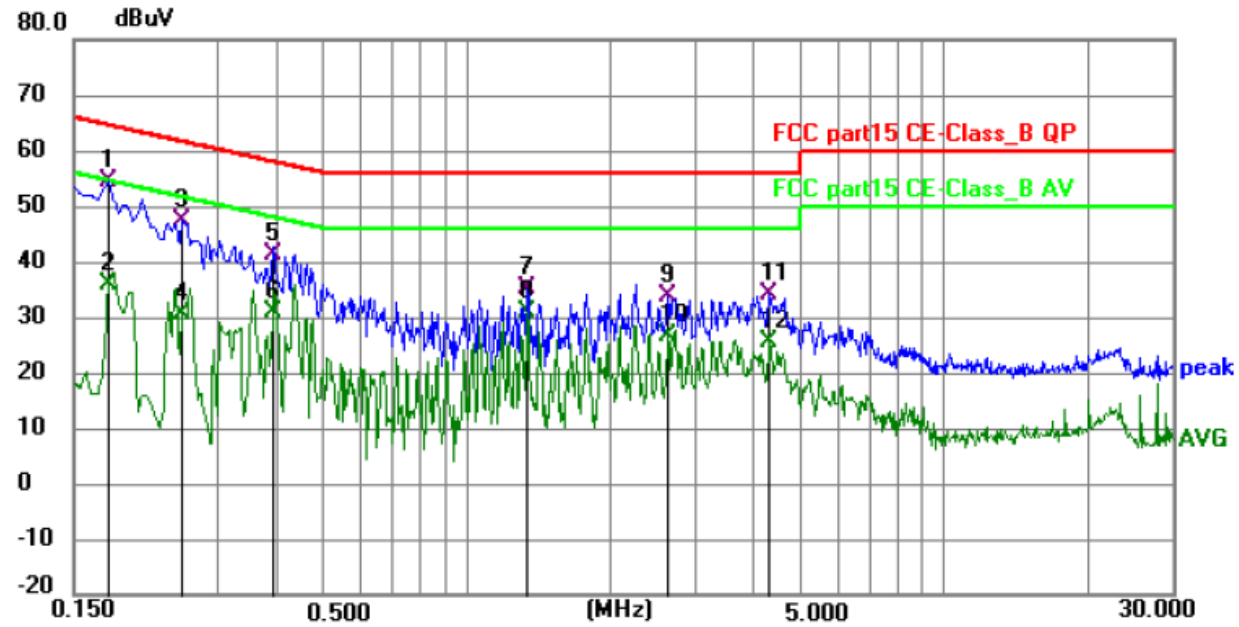


Remark:

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 *	0.1770	44.64	10.04	54.68	64.63	-9.95	QP	P	
2	0.1770	11.36	10.04	21.40	54.63	-33.23	AVG	P	
3	0.4335	31.88	10.23	42.11	57.19	-15.08	QP	P	
4	0.4335	24.89	10.23	35.12	47.19	-12.07	AVG	P	
5	1.3425	26.45	10.05	36.50	56.00	-19.50	QP	P	
6	1.3425	20.84	10.05	30.89	46.00	-15.11	AVG	P	
7	3.4125	25.36	10.16	35.52	56.00	-20.48	QP	P	
8	3.4125	15.72	10.16	25.88	46.00	-20.12	AVG	P	
9	6.4230	19.01	10.66	29.67	60.00	-30.33	QP	P	
10	6.4230	5.58	10.66	16.24	50.00	-33.76	AVG	P	
11	11.7104	12.73	11.40	24.13	60.00	-35.87	QP	P	
12	11.7104	-0.99	11.40	10.41	50.00	-39.59	AVG	P	

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 3



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 *	0.1770	44.20	10.15	54.35	64.63	-10.28	QP	P	
2	0.1770	25.75	10.15	35.90	54.63	-18.73	AVG	P	
3	0.2535	37.22	10.21	47.43	61.64	-14.21	QP	P	
4	0.2535	20.38	10.21	30.59	51.64	-21.05	AVG	P	
5	0.3930	30.99	10.22	41.21	58.00	-16.79	QP	P	
6	0.3930	20.80	10.22	31.02	48.00	-16.98	AVG	P	
7	1.3425	24.93	10.09	35.02	56.00	-20.98	QP	P	
8	1.3425	20.86	10.09	30.95	46.00	-15.05	AVG	P	
9	2.6430	23.58	10.07	33.65	56.00	-22.35	QP	P	
10	2.6430	16.61	10.07	26.68	46.00	-19.32	AVG	P	
11	4.3125	23.75	10.19	33.94	56.00	-22.06	QP	P	
12	4.3125	15.25	10.19	25.44	46.00	-20.56	AVG	P	

3.2 RADIATED EMISSION MEASUREMENT

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

15.407(b)Undesirable emission limits. Except as shown in paragraph (b) (10) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1)For transmitters operating in the 5.15-5.25GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
(2)For transmitters operating in the 5.25-5.35 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.
(3)For transmitters operating in the 5.47-5.725GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
(4)For transmitters operating solely in the 5.725-5.850GHz 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 to10dBm/MHzat25 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.

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.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

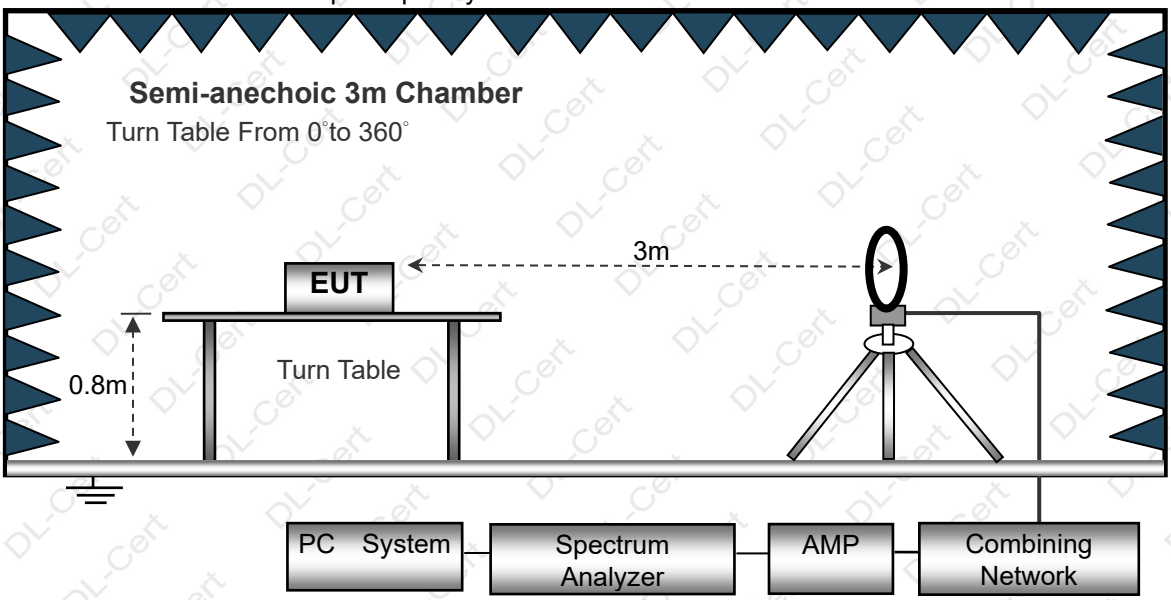
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

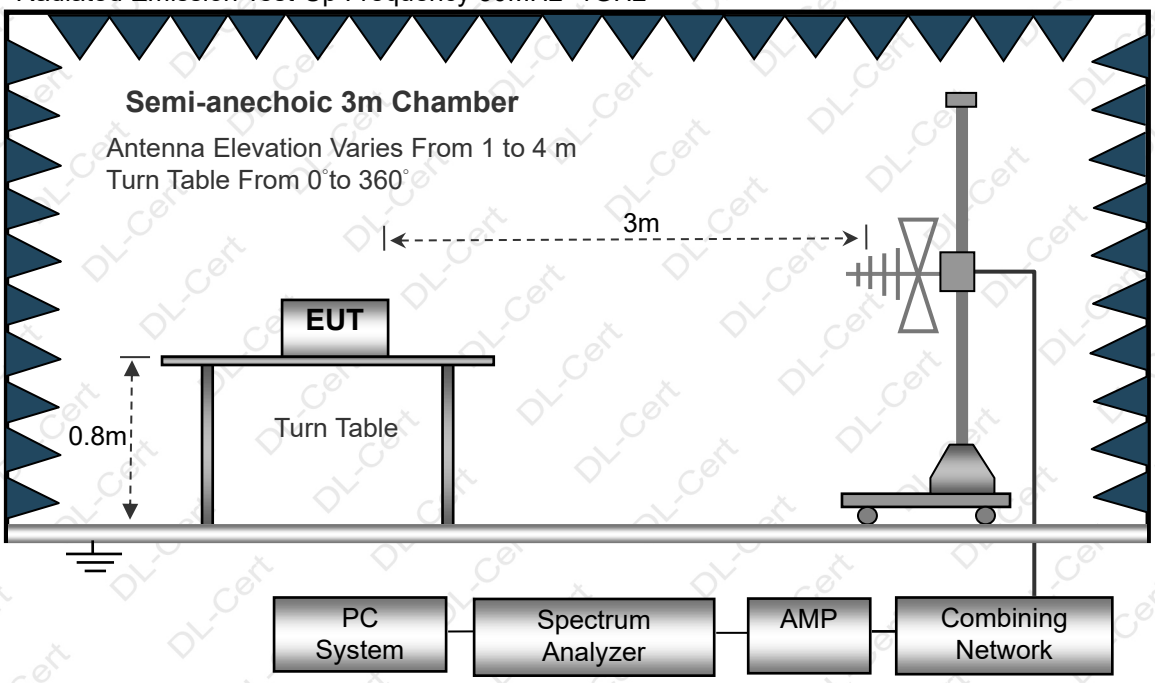
No deviation

3.2.4 TEST SETUP

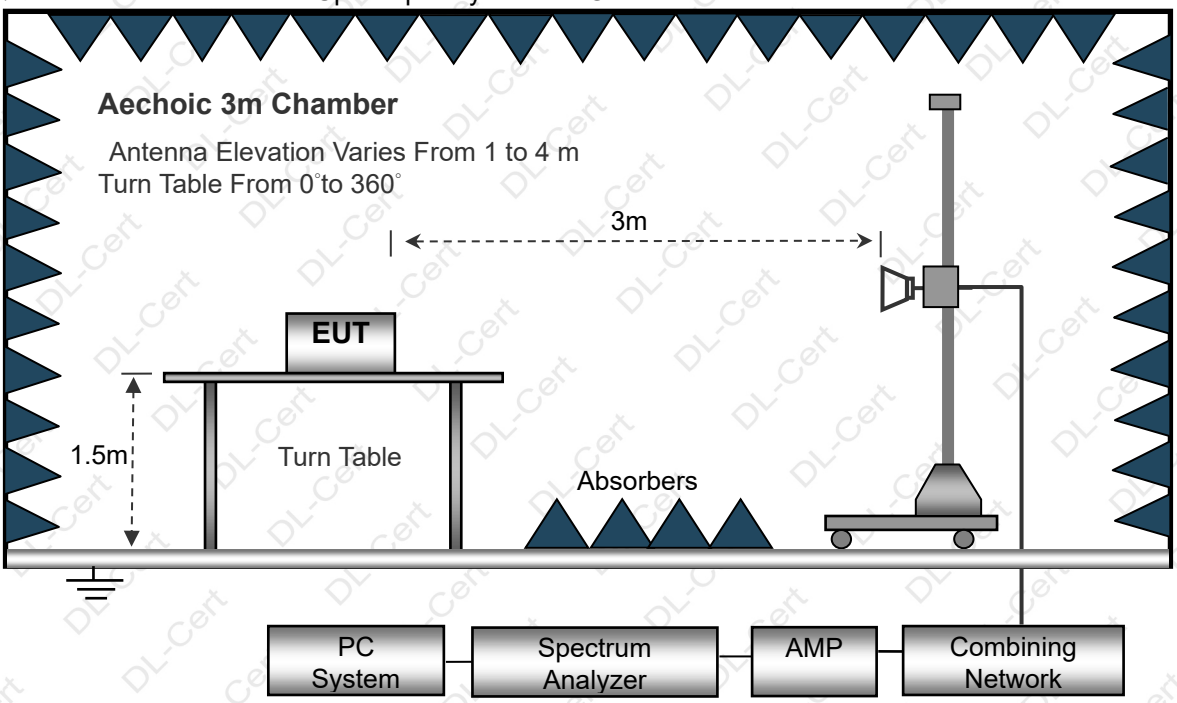
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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)

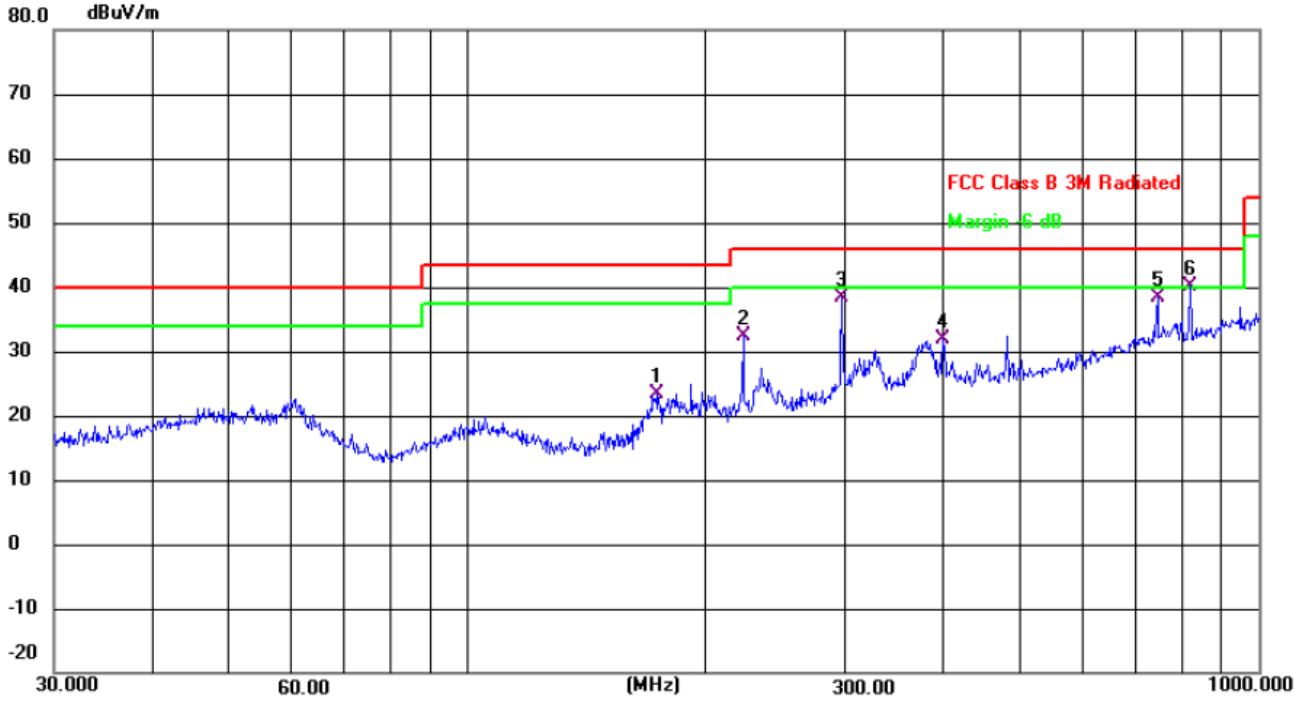
Temperature:	20℃	Relative Humidtity:	48%
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Mode 3	Polarization :	--

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)

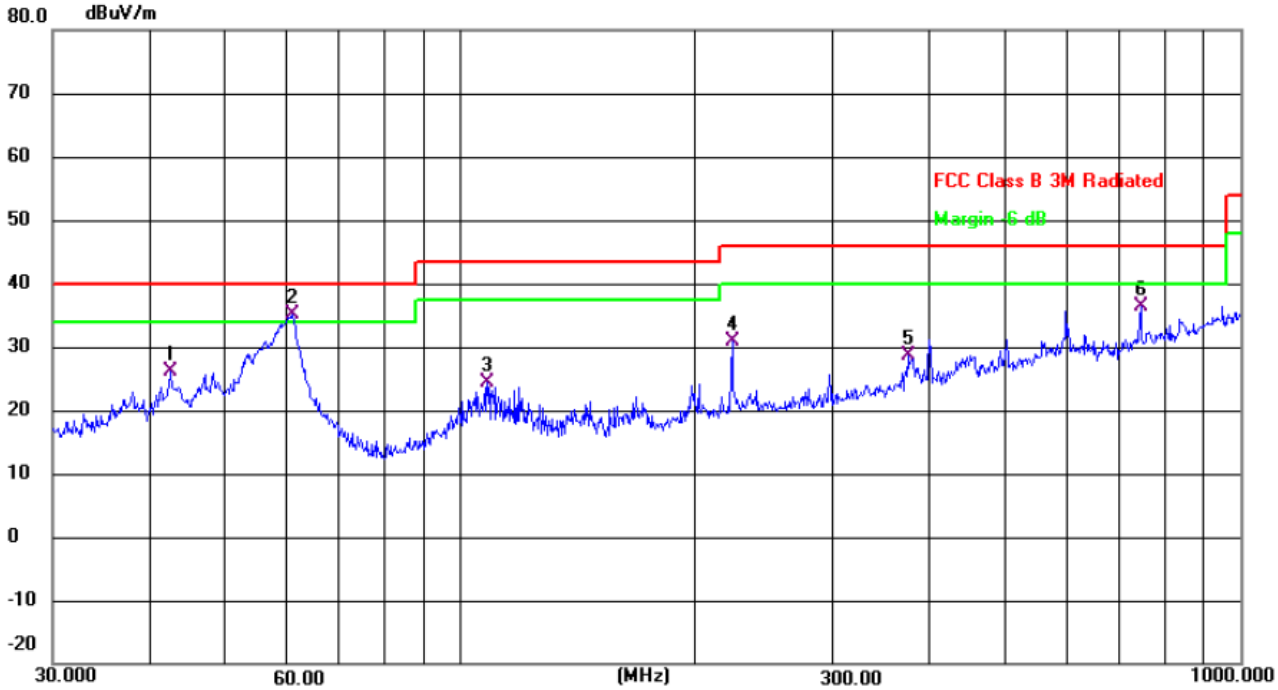
Temperature:	26℃	Relative Humidity:	54%
Pressure:	1010 hPa	Polarization :	Horizontal
Test Voltage:	AC 120V/60Hz		
Test Mode:	Mode 3		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		173.2051	34.65	-11.18	23.47	43.50	-20.03	QP
2		222.9502	40.49	-8.07	32.42	46.00	-13.58	QP
3		297.2241	44.37	-5.99	38.38	46.00	-7.62	QP
4		399.0302	35.77	-3.99	31.78	46.00	-14.22	QP
5		744.8661	35.57	2.75	38.32	46.00	-7.68	QP
6	*	818.8341	36.47	3.65	40.12	46.00	-5.88	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:	AC 120V/60Hz		
Test Mode:	Mode 3		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		42.4508	33.61	-7.56	26.05	40.00	-13.95	QP
2	*	60.9176	43.22	-7.98	35.24	40.00	-4.76	QP
3		108.2667	33.37	-8.92	24.45	43.50	-19.05	QP
4		222.9502	38.89	-8.07	30.82	46.00	-15.18	QP
5		374.6225	32.96	-4.40	28.56	46.00	-17.44	QP
6		744.8661	33.56	2.75	36.31	46.00	-9.69	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	56.35	49.05	15.3	37.39	59.99	68.2	-8.21	PK
V	10360	41.6	49.05	15.3	37.39	45.24	54	-8.76	AV
V	15540	51.86	49.16	15.27	40.45	58.42	74	-15.58	PK
V	15540	39.35	49.16	15.27	40.45	45.91	54	-8.09	AV
H	10360	55.93	49.05	15.3	37.39	59.57	68.2	-8.63	PK
H	10360	40.7	49.05	15.3	37.39	44.34	54	-9.66	AV
H	15540	51.18	49.16	15.27	40.45	57.74	74	-16.26	PK
H	15540	37.93	49.16	15.27	40.45	44.49	54	-9.51	AV
operation frequency:5200									
V	10400	57.41	49.09	15.34	37.42	61.08	68.2	-7.12	PK
V	10400	39.56	49.09	15.34	37.42	43.23	54	-10.77	AV
V	15600	52.4	49.18	15.29	40.47	58.98	74	-15.02	PK
V	15600	37.98	49.18	15.29	40.47	44.56	54	-9.44	AV
H	10400	56.08	49.09	15.34	37.42	59.75	68.2	-8.45	PK
H	10400	39.53	49.09	15.34	37.42	43.2	54	-10.80	AV
H	15600	53.59	49.18	15.29	40.47	60.17	74	-13.83	PK
H	15600	38.24	49.18	15.29	40.47	44.82	54	-9.18	AV
operation frequency:5240									
V	10480	57.93	49.11	15.37	37.46	61.65	68.2	-6.55	PK
V	10480	39.41	49.11	15.37	37.46	43.13	54	-10.87	AV
V	15720	53.24	49.21	15.34	40.51	59.88	74	-14.12	PK
V	15720	38.03	49.21	15.34	40.51	44.67	54	-9.33	AV
H	10480	57.35	49.11	15.37	31.31	54.92	68.2	-13.28	PK
H	10480	45.3	49.11	15.37	31.31	42.87	54	-11.13	AV
H	15720	53.96	49.21	15.34	40.51	60.6	74	-13.40	PK
H	15720	36.95	49.21	15.34	40.51	43.59	54	-10.41	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	55.93	49.05	15.3	37.39	59.57	68.2	-8.63	PK
V	10360	37.88	49.05	15.3	37.39	41.52	54	-12.48	AV
V	15540	52.1	49.16	15.27	40.45	58.66	74	-15.34	PK
V	15540	38.24	49.16	15.27	40.45	44.8	54	-9.20	AV
H	10360	56.35	49.05	15.3	37.39	59.99	68.2	-8.21	PK
H	10360	39	49.05	15.3	37.39	42.64	54	-11.36	AV
H	15540	51.06	49.16	15.27	40.45	57.62	74	-16.38	PK
H	15540	38.35	49.16	15.27	40.45	44.91	54	-9.09	AV
operation frequency:5200									
V	10400	56.23	49.09	15.34	37.42	59.9	68.2	-8.30	PK
V	10400	39.4	49.09	15.34	37.42	43.07	54	-10.93	AV
V	15600	52.18	49.18	15.29	40.47	58.76	74	-15.24	PK
V	15600	37.93	49.18	15.29	40.47	44.51	54	-9.49	AV
H	10400	55.35	49.09	15.34	37.42	59.02	68.2	-9.18	PK
H	10400	40.57	49.09	15.34	37.42	44.24	54	-9.76	AV
H	15600	53.13	49.18	15.29	40.47	59.71	74	-14.29	PK
H	15600	38.98	49.18	15.29	40.47	45.56	54	-8.44	AV
operation frequency:5240									
V	10480	57.24	49.11	15.37	37.46	60.96	68.2	-7.24	PK
V	10480	40.33	49.11	15.37	37.46	44.05	54	-9.95	AV
V	15720	52.38	49.21	15.34	40.51	59.02	74	-14.98	PK
V	15720	37.99	49.21	15.34	40.51	44.63	54	-9.37	AV
H	10480	56.93	49.11	15.37	31.31	54.5	68.2	-13.70	PK
H	10480	44.58	49.11	15.37	31.31	42.15	54	-11.85	AV
H	15720	51.7	49.21	15.34	40.51	58.34	74	-15.66	PK
H	15720	39.56	49.21	15.34	40.51	46.2	54	-7.80	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	55.93	49.07	15.33	37.41	59.6	68.2	-8.60	PK
V	10380	39.38	49.07	15.33	37.41	43.05	54	-10.95	AV
V	15570	52.6	49.17	15.28	40.46	59.17	74	-14.83	PK
V	15570	38.06	49.17	15.28	40.46	44.63	54	-9.37	AV
H	10380	56.35	49.07	15.33	37.41	60.02	68.2	-8.18	PK
H	10380	40.56	49.07	15.33	37.41	44.23	54	-9.77	AV
H	15570	52.61	49.17	15.28	40.46	59.18	74	-14.82	PK
H	15570	38.17	49.17	15.28	40.46	44.74	54	-9.26	AV
operation frequency:5230									
V	10460	56.83	49.11	15.37	37.46	60.55	68.2	-7.65	PK
V	10460	39.35	49.11	15.37	37.46	43.07	54	-10.93	AV
V	15690	52	49.21	15.34	40.51	58.64	74	-15.36	PK
V	15690	38.36	49.21	15.34	40.51	45	54	-9.00	AV
H	10460	57.03	49.11	15.37	31.31	54.6	68.2	-13.60	PK
H	10460	44.05	49.11	15.37	31.31	41.62	54	-12.38	AV
H	15690	51.93	49.21	15.34	40.51	58.57	74	-15.43	PK
H	15690	39.01	49.21	15.34	40.51	45.65	54	-8.35	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	56.3	49.05	15.3	37.39	59.94	68.2	-8.26	PK
V	10360	39.35	49.05	15.3	37.39	42.99	54	-11.01	AV
V	15540	51.13	49.16	15.27	40.45	57.69	74	-16.31	PK
V	15540	37.93	49.16	15.27	40.45	44.49	54	-9.51	AV
H	10360	56.41	49.05	15.3	37.39	60.05	68.2	-8.15	PK
H	10360	38.24	49.05	15.3	37.39	41.88	54	-12.12	AV
H	15540	51.88	49.16	15.27	40.45	58.44	74	-15.56	PK
H	15540	39.24	49.16	15.27	40.45	45.8	54	-8.20	AV
operation frequency:5200									
V	10400	56.39	49.09	15.34	37.42	60.06	68.2	-8.14	PK
V	10400	41.18	49.09	15.34	37.42	44.85	54	-9.15	AV
V	15600	51.95	49.18	15.29	40.47	58.53	74	-15.47	PK
V	15600	40.06	49.18	15.29	40.47	46.64	54	-7.36	AV
H	10400	55.57	49.09	15.34	37.42	59.24	68.2	-8.96	PK
H	10400	39.98	49.09	15.34	37.42	43.65	54	-10.35	AV
H	15600	52.93	49.18	15.29	40.47	59.51	74	-14.49	PK
H	15600	41.38	49.18	15.29	40.47	47.96	54	-6.04	AV
operation frequency:5240									
V	10480	57.61	49.11	15.37	37.46	61.33	68.2	-6.87	PK
V	10480	40.36	49.11	15.37	37.46	44.08	54	-9.92	AV
V	15720	51.13	49.21	15.34	40.51	57.77	74	-16.23	PK
V	15720	39.35	49.21	15.34	40.51	45.99	54	-8.01	AV
H	10480	57.5	49.11	15.37	31.31	55.07	68.2	-13.13	PK
H	10480	44.38	49.11	15.37	31.31	41.95	54	-12.05	AV
H	15720	52.57	49.21	15.34	40.51	59.21	74	-14.79	PK
H	15720	40.41	49.21	15.34	40.51	47.05	54	-6.95	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.

802.11ax HE20

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	56.3	49.07	15.33	37.41	59.97	68.2	-8.23	PK
V	10360	39.35	49.07	15.33	37.41	43.02	54	-10.98	AV
V	15540	51.13	49.17	15.28	40.46	57.7	74	-16.30	PK
V	15540	37.93	49.17	15.28	40.46	44.5	54	-9.50	AV
H	10360	56.41	49.07	15.33	37.41	60.08	68.2	-8.12	PK
H	10360	38.24	49.07	15.33	37.41	41.91	54	-12.09	AV
H	15540	51.88	49.17	15.28	40.46	58.45	74	-15.55	PK
H	15540	39.24	49.17	15.28	40.46	45.81	54	-8.19	AV
operation frequency:5200									
V	10400	56.39	49.11	15.37	37.46	60.11	68.2	-8.09	PK
V	10400	41.18	49.11	15.37	37.46	44.9	54	-9.10	AV
V	15600	51.95	49.21	15.34	40.51	58.59	74	-15.41	PK
V	15600	40.06	49.21	15.34	40.51	46.7	54	-7.30	AV
H	10400	55.57	49.11	15.37	31.31	53.14	68.2	-15.06	PK
H	10400	39.98	49.11	15.37	31.31	37.55	54	-16.45	AV
H	15600	52.93	49.21	15.34	40.51	59.57	74	-14.43	PK
H	15600	41.38	49.21	15.34	40.51	48.02	54	-5.98	AV
operation frequency:5240									
V	10480	57.61	49.07	15.33	37.41	61.28	68.2	-6.92	PK
V	10480	40.36	49.07	15.33	37.41	44.03	54	-9.97	AV
V	15720	51.13	49.17	15.28	40.46	57.7	74	-16.30	PK
V	15720	39.35	49.17	15.28	40.46	45.92	54	-8.08	AV
H	10480	57.5	49.07	15.33	37.41	61.17	68.2	-7.03	PK
H	10480	44.38	49.07	15.33	37.41	48.05	54	-5.95	AV
H	15720	52.57	49.17	15.28	40.46	59.14	74	-14.86	PK
H	15720	40.41	49.17	15.28	40.46	46.98	54	-7.02	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	10380	56.04	49.07	15.33	37.41	59.71	68.2	-8.49	PK
V	10380	39.13	49.07	15.33	37.41	42.8	54	-11.20	AV
V	15570	51.28	49.17	15.28	40.46	57.85	74	-16.15	PK
V	15570	38.57	49.17	15.28	40.46	45.14	54	-8.86	AV
H	10380	56.35	49.07	15.33	37.41	60.02	68.2	-8.18	PK
H	10380	37.87	49.07	15.33	37.41	41.54	54	-12.46	AV
H	15570	51.86	49.17	15.28	40.46	58.43	74	-15.57	PK
H	15570	39.46	49.17	15.28	40.46	46.03	54	-7.97	AV
operation frequency:5230									
V	10460	56.35	49.11	15.37	37.46	60.07	68.2	-8.13	PK
V	10460	41.16	49.11	15.37	37.46	44.88	54	-9.12	AV
V	15690	52	49.21	15.34	40.51	58.64	74	-15.36	PK
V	15690	40.08	49.21	15.34	40.51	46.72	54	-7.28	AV
H	10460	55.47	49.11	15.37	31.31	53.04	68.2	-15.16	PK
H	10460	39.96	49.11	15.37	31.31	37.53	54	-16.47	AV
H	15690	53.4	49.21	15.34	40.51	60.04	74	-13.96	PK
H	15690	41.35	49.21	15.34	40.51	47.99	54	-6.01	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.

802.11ax HE40

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	56.04	49.09	15.34	37.42	59.71	68.2	-8.49	PK
V	10380	39.13	49.09	15.34	37.42	42.8	54	-11.20	AV
V	15570	51.28	49.18	15.29	40.47	57.86	74	-16.14	PK
V	15570	38.57	49.18	15.29	40.47	45.15	54	-8.85	AV
H	10380	56.35	49.09	15.34	37.42	60.02	68.2	-8.18	PK
H	10380	37.87	49.09	15.34	37.42	41.54	54	-12.46	AV
H	15570	51.86	49.18	15.29	40.47	58.44	74	-15.56	PK
H	15570	39.46	49.18	15.29	40.47	46.04	54	-7.96	AV
operation frequency:5230									
V	10460	56.35	49.11	15.37	37.46	60.07	68.2	-8.13	PK
V	10460	41.16	49.11	15.37	37.46	44.88	54	-9.12	AV
V	15690	52	49.21	15.34	40.51	58.64	74	-15.36	PK
V	15690	40.08	49.21	15.34	40.51	46.72	54	-7.28	AV
H	10460	55.47	49.11	15.37	31.31	53.04	68.2	-15.16	PK
H	10460	39.96	49.11	15.37	31.31	37.53	54	-16.47	AV
H	15690	53.4	49.21	15.34	40.51	60.04	74	-13.96	PK
H	15690	41.35	49.21	15.34	40.51	47.99	54	-6.01	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	53.97	49.05	15.3	37.39	57.61	74	-16.39	PK
V	11490	41.68	49.05	15.3	37.39	45.32	54	-8.68	AV
V	17235	54.97	49.16	15.27	40.45	61.53	68.2	-6.67	PK
V	17235	40.33	49.16	15.27	40.45	46.89	54	-7.11	AV
H	11490	52.4	49.05	15.3	37.39	56.04	74	-17.96	PK
H	11490	41.88	49.05	15.3	37.39	45.52	54	-8.48	AV
H	17235	51.24	49.16	15.27	40.45	57.8	68.2	-10.40	PK
H	17235	39.86	49.16	15.27	40.45	46.42	54	-7.58	AV
operation frequency:5785									
V	11570	51.08	49.09	15.34	37.42	54.75	74	-19.25	PK
V	11570	41	49.09	15.34	37.42	44.67	54	-9.33	AV
V	17355	50.13	49.18	15.29	40.47	56.71	68.2	-11.49	PK
V	17355	40.15	49.18	15.29	40.47	46.73	54	-7.27	AV
H	11570	49.97	49.09	15.34	37.42	53.64	74	-20.36	PK
H	11570	41.93	49.09	15.34	37.42	45.6	54	-8.40	AV
H	17355	47.99	49.18	15.29	40.47	54.57	68.2	-13.63	PK
H	17355	40.28	49.18	15.29	40.47	46.86	54	-7.14	AV
operation frequency:5825									
V	11650	51.93	49.11	15.37	37.46	55.65	74	-18.35	PK
V	11650	41.01	49.11	15.37	37.46	44.73	54	-9.27	AV
V	17475	49.24	49.21	15.34	40.51	55.88	68.2	-12.32	PK
V	17475	40.56	49.21	15.34	40.51	47.2	54	-6.80	AV
H	11650	57.08	49.11	15.37	31.31	54.65	74	-19.35	PK
H	11650	48.24	49.11	15.37	31.31	45.81	54	-8.19	AV
H	17475	49.3	49.21	15.34	40.51	55.94	68.2	-12.26	PK
H	17475	40.15	49.21	15.34	40.51	46.79	54	-7.21	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:5745									
V	11490	49.57	49.05	15.3	37.39	53.21	74	-20.79	PK
V	11490	42.25	49.05	15.3	37.39	45.89	54	-8.11	AV
V	17235	48.46	49.16	15.27	40.45	55.02	68.2	-13.18	PK
V	17235	40.68	49.16	15.27	40.45	47.24	54	-6.76	AV
H	11490	49.24	49.05	15.3	37.39	52.88	74	-21.12	PK
H	11490	41	49.05	15.3	37.39	44.64	54	-9.36	AV
H	17235	48.08	49.16	15.27	40.45	54.64	68.2	-13.56	PK
H	17235	40.26	49.16	15.27	40.45	46.82	54	-7.18	AV
operation frequency:5785									
V	11570	51.93	49.09	15.34	37.42	55.6	74	-18.40	PK
V	11570	42.41	49.09	15.34	37.42	46.08	54	-7.92	AV
V	17355	49.24	49.18	15.29	40.47	55.82	68.2	-12.38	PK
V	17355	39.95	49.18	15.29	40.47	46.53	54	-7.47	AV
H	11570	49.3	49.09	15.34	37.42	52.97	74	-21.03	PK
H	11570	42.93	49.09	15.34	37.42	46.6	54	-7.40	AV
H	17355	49.68	49.18	15.29	40.47	56.26	68.2	-11.94	PK
H	17355	39.93	49.18	15.29	40.47	46.51	54	-7.49	AV
operation frequency:5825									
V	11650	51.57	49.11	15.37	37.46	55.29	74	-18.71	PK
V	11650	41.35	49.11	15.37	37.46	45.07	54	-8.93	AV
V	17475	47.93	49.21	15.34	40.51	54.57	68.2	-13.63	PK
V	17475	40.35	49.21	15.34	40.51	46.99	54	-7.01	AV
H	11650	57.26	49.11	15.37	31.31	54.83	74	-19.17	PK
H	11650	44.57	49.11	15.37	31.31	42.14	54	-11.86	AV
H	17475	49.35	49.21	15.34	40.51	55.99	68.2	-12.21	PK
H	17475	40.06	49.21	15.34	40.51	46.7	54	-7.30	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:5755									
V	11510	49.24	49.07	15.33	37.41	52.91	74	-21.09	PK
V	11510	41.35	49.07	15.33	37.41	45.02	54	-8.98	AV
V	17265	49.57	49.17	15.28	40.46	56.14	68.2	-12.06	PK
V	17265	39.87	49.17	15.28	40.46	46.44	54	-7.56	AV
H	11510	48.55	49.07	15.33	37.41	52.22	74	-21.78	PK
H	11510	41.57	49.07	15.33	37.41	45.24	54	-8.76	AV
H	17265	48.93	49.17	15.28	40.46	55.5	68.2	-12.70	PK
H	17265	40.41	49.17	15.28	40.46	46.98	54	-7.02	AV
operation frequency:5795									
V	11590	49.13	49.11	15.37	37.46	52.85	74	-21.15	PK
V	11590	41.35	49.11	15.37	37.46	45.07	54	-8.93	AV
V	17385	47.84	49.21	15.34	40.51	54.48	68.2	-13.72	PK
V	17385	40.19	49.21	15.34	40.51	46.83	54	-7.17	AV
H	11590	57.28	49.11	15.37	31.31	54.85	74	-19.15	PK
H	11590	44.3	49.11	15.37	31.31	41.87	54	-12.13	AV
H	17385	47.87	49.21	15.34	40.51	54.51	68.2	-13.69	PK
H	17385	40.08	49.21	15.34	40.51	46.72	54	-7.28	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	49.41	49.05	15.3	37.39	53.05	74	-20.95	PK
V	11490	41.97	49.05	15.3	37.39	45.61	54	-8.39	AV
V	17235	48.23	49.16	15.27	40.45	54.79	68.2	-13.41	PK
V	17235	40.06	49.16	15.27	40.45	46.62	54	-7.38	AV
H	11490	48.6	49.05	15.3	37.39	52.24	74	-21.76	PK
H	11490	41.35	49.05	15.3	37.39	44.99	54	-9.01	AV
H	17235	47.93	49.16	15.27	40.45	54.49	68.2	-13.71	PK
H	17235	40.68	49.16	15.27	40.45	47.24	54	-6.76	AV
operation frequency:5785									
V	11570	49.24	49.09	15.34	37.42	52.91	74	-21.09	PK
V	11570	42.06	49.09	15.34	37.42	45.73	54	-8.27	AV
V	17355	48.29	49.18	15.29	40.47	54.87	68.2	-13.33	PK
V	17355	40.08	49.18	15.29	40.47	46.66	54	-7.34	AV
H	11570	48.24	49.09	15.34	37.42	51.91	74	-22.09	PK
H	11570	40.86	49.09	15.34	37.42	44.53	54	-9.47	AV
H	17355	47.95	49.18	15.29	40.47	54.53	68.2	-13.67	PK
H	17355	40.57	49.18	15.29	40.47	47.15	54	-6.85	AV
operation frequency:5825									
V	11650	48.35	49.11	15.37	37.46	52.07	74	-21.93	PK
V	11650	40.86	49.11	15.37	37.46	44.58	54	-9.42	AV
V	17475	49.5	49.21	15.34	40.51	56.14	68.2	-12.06	PK
V	17475	40.08	49.21	15.34	40.51	46.72	54	-7.28	AV
H	11650	48.93	49.11	15.37	31.31	46.5	74	-27.50	PK
H	11650	43.15	49.11	15.37	31.31	40.72	54	-13.28	AV
H	17475	49.57	49.21	15.34	40.51	56.21	68.2	-11.99	PK
H	17475	40.68	49.21	15.34	40.51	47.32	54	-6.68	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.

802.11ax HE20

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	49.41	49.07	15.33	37.41	53.08	74	-20.92	PK
V	11490	41.97	49.07	15.33	37.41	45.64	54	-8.36	AV
V	17235	48.23	49.17	15.28	40.46	54.8	68.2	-13.40	PK
V	17235	40.06	49.17	15.28	40.46	46.63	54	-7.37	AV
H	11490	48.6	49.07	15.33	37.41	52.27	74	-21.73	PK
H	11490	41.35	49.07	15.33	37.41	45.02	54	-8.98	AV
H	17235	47.93	49.17	15.28	40.46	54.5	68.2	-13.70	PK
H	17235	40.68	49.17	15.28	40.46	47.25	54	-6.75	AV
operation frequency:5785									
V	11570	49.24	49.11	15.37	37.46	52.96	74	-21.04	PK
V	11570	42.06	49.11	15.37	37.46	45.78	54	-8.22	AV
V	17355	48.29	49.21	15.34	40.51	54.93	68.2	-13.27	PK
V	17355	40.08	49.21	15.34	40.51	46.72	54	-7.28	AV
H	11570	48.24	49.11	15.37	31.31	45.81	74	-28.19	PK
H	11570	40.86	49.11	15.37	31.31	38.43	54	-15.57	AV
H	17355	47.95	49.21	15.34	40.51	54.59	68.2	-13.61	PK
H	17355	40.57	49.21	15.34	40.51	47.21	54	-6.79	AV
operation frequency:5825									
V	11650	48.35	49.07	15.33	37.41	52.02	74	-21.98	PK
V	11650	40.86	49.07	15.33	37.41	44.53	54	-9.47	AV
V	17475	49.5	49.17	15.28	40.46	56.07	68.2	-12.13	PK
V	17475	40.08	49.17	15.28	40.46	46.65	54	-7.35	AV
H	11650	48.93	49.07	15.33	37.41	52.6	74	-21.40	PK
H	11650	43.15	49.07	15.33	37.41	46.82	54	-7.18	AV
H	17475	49.57	49.17	15.28	40.46	56.14	68.2	-12.06	PK
H	17475	40.68	49.17	15.28	40.46	47.25	54	-6.75	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	48.93	49.07	15.33	37.41	52.6	74	-21.40	PK
V	11510	42.55	49.07	15.33	37.41	46.22	54	-7.78	AV
V	17265	48.57	49.17	15.28	40.46	55.14	68.2	-13.06	PK
V	17265	41.38	49.17	15.28	40.46	47.95	54	-6.05	AV
H	11510	48.24	49.07	15.33	37.41	51.91	74	-22.09	PK
H	11510	42.66	49.07	15.33	37.41	46.33	54	-7.67	AV
H	17265	47.93	49.17	15.28	40.46	54.5	68.2	-13.70	PK
H	17265	40.51	49.17	15.28	40.46	47.08	54	-6.92	AV
operation frequency:5795									
V	11590	49.35	49.11	15.37	37.46	53.07	74	-20.93	PK
V	11590	40.93	49.11	15.37	37.46	44.65	54	-9.35	AV
V	17385	48.28	49.21	15.34	40.51	54.92	68.2	-13.28	PK
V	17385	39.93	49.21	15.34	40.51	46.57	54	-7.43	AV
H	11590	57.26	49.11	15.37	31.31	54.83	74	-19.17	PK
H	11590	44.09	49.11	15.37	31.31	41.66	54	-12.34	AV
H	17385	48.15	49.21	15.34	40.51	54.79	68.2	-13.41	PK
H	17385	40.24	49.21	15.34	40.51	46.88	54	-7.12	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.

802.11ax HE40

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	48.93	49.09	15.34	37.42	52.6	74	-21.40	PK
V	11510	42.55	49.09	15.34	37.42	46.22	54	-7.78	AV
V	17265	48.57	49.18	15.29	40.47	55.15	68.2	-13.05	PK
V	17265	41.38	49.18	15.29	40.47	47.96	54	-6.04	AV
H	11510	48.24	49.09	15.34	37.42	51.91	74	-22.09	PK
H	11510	42.66	49.09	15.34	37.42	46.33	54	-7.67	AV
H	17265	47.93	49.18	15.29	40.47	54.51	68.2	-13.69	PK
H	17265	40.51	49.18	15.29	40.47	47.09	54	-6.91	AV
operation frequency:5795									
V	11590	49.35	49.11	15.37	37.46	53.07	74	-20.93	PK
V	11590	40.93	49.11	15.37	37.46	44.65	54	-9.35	AV
V	17385	48.28	49.21	15.34	40.51	54.92	68.2	-13.28	PK
V	17385	39.93	49.21	15.34	40.51	46.57	54	-7.43	AV
H	11590	57.26	49.11	15.37	31.31	54.83	74	-19.17	PK
H	11590	44.09	49.11	15.37	31.31	41.66	54	-12.34	AV
H	17385	48.15	49.21	15.34	40.51	54.79	68.2	-13.41	PK
H	17385	40.24	49.21	15.34	40.51	46.88	54	-7.12	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.

3.3 RADIATED BAND EMISSION MEASUREMENT

3.3.1 TEST REQUIREMENT:

15.407 (b)

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)
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.
For transmitters operating solely in the 5.725-5.850 GHz band:
(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.
(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
The provisions of §15.205 apply to intentional radiators operating under this section,15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

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	Band 1:5000MHz-5150MHz, Band 4:5600MHz-5785MHz
Stop Frequency	Band 1:5350MHz-5460MHz, Band 4:5780MHz-6000MHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

3.3.2 TEST PROCEDURE

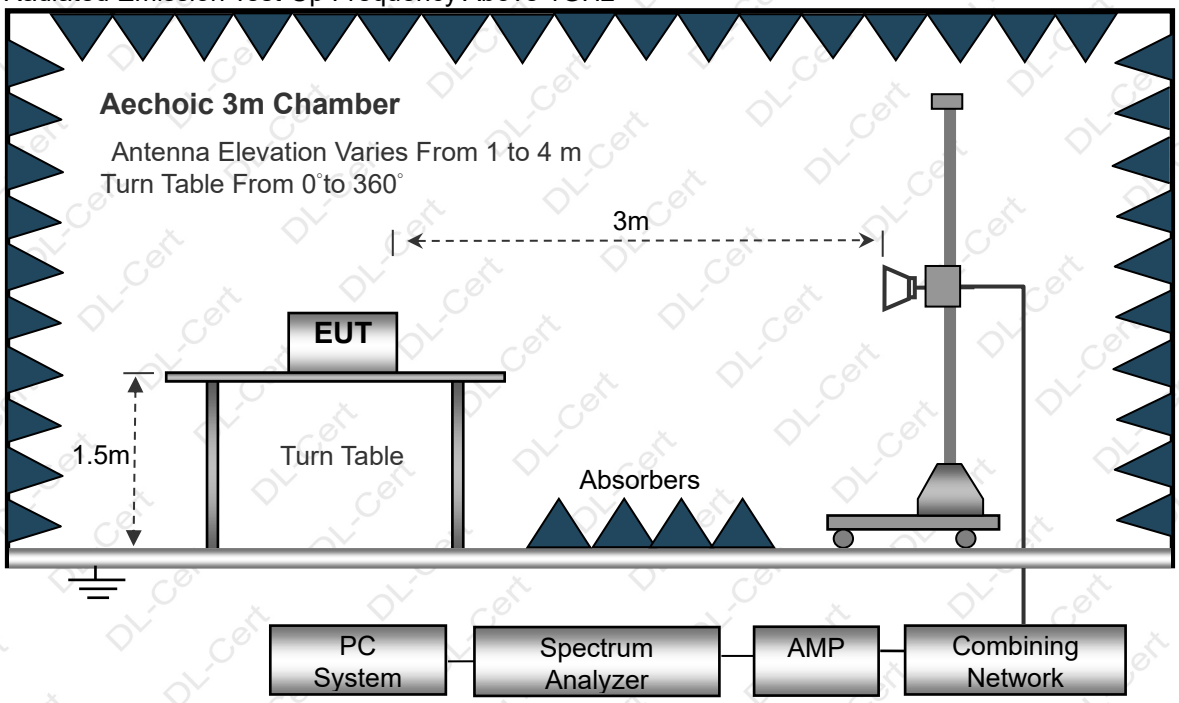
Above 1GHz test procedure as below:
a. 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, 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(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	5150	53.31	49.12	15.6	37.34	57.13	74	-16.87	PK
V	5150	39.54	49.12	15.6	37.34	43.36	54	-10.64	AV
V	5145	54.59	49.19	15.24	40.43	61.07	74	-12.93	PK
V	5145	35.77	49.19	15.24	40.43	42.25	54	-11.75	AV
H	5150	52.15	49.12	15.6	37.34	55.97	74	-18.03	PK
H	5150	37.42	49.12	15.6	37.34	41.24	54	-12.76	AV
H	5145	54.17	49.19	15.24	40.43	60.65	74	-13.35	PK
H	5145	33.14	49.19	15.24	40.43	39.62	54	-14.38	AV

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:5240									
V	5350	52.73	49.13	15.32	37.46	56.38	74	-17.62	PK
V	5350	34.82	49.13	15.32	37.46	38.47	54	-15.53	AV
V	5370	52.89	49.24	15.36	40.51	59.52	74	-14.48	PK
V	5370	32	49.24	15.36	40.51	38.63	54	-15.37	AV
H	5350	51.51	49.13	15.32	31.31	49.01	74	-24.99	PK
H	5350	39.53	49.13	15.32	31.31	37.03	54	-16.97	AV
H	5370	51.65	49.24	15.36	40.51	58.28	74	-15.72	PK
H	5370	31.73	49.24	15.36	40.51	38.36	54	-15.64	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	51.19	49.12	15.6	37.34	55.01	74	-18.99	PK
V	5150	32.77	49.12	15.6	37.34	36.59	54	-17.41	AV
V	5145	51.21	49.19	15.24	40.43	57.69	74	-16.31	PK
V	5145	33.26	49.19	15.24	40.43	39.74	54	-14.26	AV
H	5150	50.84	49.12	15.6	37.34	54.66	74	-19.34	PK
H	5150	33.09	49.12	15.6	37.34	36.91	54	-17.09	AV
H	5145	50.15	49.19	15.24	40.43	56.63	74	-17.37	PK
H	5145	32.46	49.19	15.24	40.43	38.94	54	-15.06	AV

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:5240									
V	5350	52.89	49.13	15.32	37.46	56.54	74	-17.46	PK
V	5350	35.07	49.13	15.32	37.46	38.72	54	-15.28	AV
V	5370	53.48	49.24	15.36	40.51	60.11	74	-13.89	PK
V	5370	32.26	49.24	15.36	40.51	38.89	54	-15.11	AV
H	5350	52.15	49.13	15.32	31.31	49.65	74	-24.35	PK
H	5350	40.05	49.13	15.32	31.31	37.55	54	-16.45	AV
H	5370	51.95	49.24	15.36	40.51	58.58	74	-15.42	PK
H	5370	32.16	49.24	15.36	40.51	38.79	54	-15.21	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	52.15	49.12	15.33	37.41	55.77	74	-18.23	PK
V	5150	34.26	49.12	15.33	37.41	37.88	54	-16.12	AV
V	5145	51.52	49.19	15.28	40.46	58.07	74	-15.93	PK
V	5145	32.88	49.19	15.28	40.46	39.43	54	-14.57	AV
H	5150	52.49	49.12	15.33	37.41	56.11	74	-17.89	PK
H	5150	33.84	49.12	15.33	37.41	37.46	54	-16.54	AV
H	5145	50.47	49.19	15.28	40.46	57.02	74	-16.98	PK
H	5145	33.06	49.19	15.28	40.46	39.61	54	-14.39	AV

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:5240									
V	5350	53.48	49.13	15.32	37.46	57.13	74	-16.87	PK
V	5350	35.88	49.13	15.32	37.46	39.53	54	-14.47	AV
V	5370	49.96	49.24	15.36	40.51	56.59	74	-17.41	PK
V	5370	33.27	49.24	15.36	40.51	39.9	54	-14.1	AV
H	5350	53.48	49.13	15.32	31.31	50.98	74	-23.02	PK
H	5350	40.46	49.13	15.32	31.31	37.96	54	-16.04	AV
H	5370	50.98	49.24	15.36	40.51	57.61	74	-16.39	PK
H	5370	35.19	49.24	15.36	40.51	41.82	54	-12.18	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.

802.11aX HE20

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	52.15	49.12	15.6	37.39	56.02	74	-17.98	PK
V	5150	34.26	49.12	15.6	37.39	38.13	54	-15.87	AV
V	5145	51.52	49.19	15.24	40.45	58.02	74	-15.98	PK
V	5145	32.88	49.19	15.24	40.45	39.38	54	-14.62	AV
H	5150	52.49	49.12	15.6	37.39	56.36	74	-17.64	PK
H	5150	33.84	49.12	15.6	37.39	37.71	54	-16.29	AV
H	5145	50.47	49.19	15.24	40.45	56.97	74	-17.03	PK
H	5145	33.06	49.19	15.24	40.45	39.56	54	-14.44	AV

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:5240									
V	5350	53.48	49.13	15.34	37.46	57.15	74	-16.85	PK
V	5350	35.88	49.13	15.34	37.46	39.55	54	-14.45	AV
V	5370	49.96	49.24	15.35	40.51	56.58	74	-17.42	PK
V	5370	33.27	49.24	15.35	40.51	39.89	54	-14.11	AV
H	5350	53.48	49.13	15.34	31.31	51	74	-23	PK
H	5350	40.46	49.13	15.34	31.31	37.98	54	-16.02	AV
H	5370	50.98	49.24	15.35	40.51	57.6	74	-16.4	PK
H	5370	35.19	49.24	15.35	40.51	41.81	54	-12.19	AV

Remark:

2. 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	51.84	49.12	15.32	37.41	55.45	74	-18.55	PK
V	5150	35.26	49.12	15.32	37.41	38.87	54	-15.13	AV
V	5145	51.08	49.19	15.36	40.46	57.71	74	-16.29	PK
V	5145	34.52	49.19	15.36	40.46	41.15	54	-12.85	AV
H	5150	51.88	49.12	15.32	37.41	55.49	74	-18.51	PK
H	5150	34.27	49.12	15.32	37.41	37.88	54	-16.12	AV
H	5145	50.19	49.19	15.36	40.46	56.82	74	-17.18	PK
H	5145	35.48	49.19	15.36	40.46	42.11	54	-11.89	AV

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:5230									
V	5350	52.84	49.13	15.34	37.34	56.39	74	-17.61	PK
V	5350	36.99	49.13	15.34	37.34	40.54	54	-13.46	AV
V	5370	50.48	49.24	15.35	40.43	57.02	74	-16.98	PK
V	5370	36.29	49.24	15.35	40.43	42.83	54	-11.17	AV
H	5350	53.77	49.13	15.34	37.34	57.32	74	-16.68	PK
H	5350	41.52	49.13	15.34	37.34	45.07	54	-8.93	AV
H	5370	51.88	49.24	15.35	40.43	58.42	74	-15.58	PK
H	5370	35.89	49.24	15.35	40.43	42.43	54	-11.57	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 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	51.84	49.13	15.32	37.48	55.51	74	-18.49	PK
V	5150	37.06	49.13	15.32	37.48	40.73	54	-13.27	AV
V	5145	52.31	49.24	15.36	40.42	58.85	74	-15.15	PK
V	5145	36.26	49.24	15.36	40.42	42.8	54	-11.2	AV
H	5150	52.48	49.13	15.32	37.48	56.15	74	-17.85	PK
H	5150	37.47	49.13	15.32	37.48	41.14	54	-12.86	AV
H	5145	51.26	49.24	15.36	40.42	57.8	74	-16.2	PK
H	5145	35.78	49.24	15.36	40.42	42.32	54	-11.68	AV

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:5230									
V	5350	52.89	49.12	15.6	37.39	56.76	74	-17.24	PK
V	5350	37	49.12	15.6	37.39	40.87	54	-13.13	AV
V	5370	50.47	49.19	15.24	40.45	56.97	74	-17.03	PK
V	5370	36.26	49.19	15.24	40.45	42.76	54	-11.24	AV
H	5350	53.78	49.12	15.6	37.39	57.65	74	-16.35	PK
H	5350	41.45	49.12	15.6	37.39	45.32	54	-8.68	AV
H	5370	51.92	49.19	15.24	40.45	58.42	74	-15.58	PK
H	5370	35.87	49.19	15.24	40.45	42.37	54	-11.63	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.

802.11ax HE40

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	51.84	49.13	15.34	37.46	55.51	74	-18.49	PK
V	5150	37.06	49.13	15.34	37.46	40.73	54	-13.27	AV
V	5145	52.31	49.24	15.35	40.51	58.93	74	-15.07	PK
V	5145	36.26	49.24	15.35	40.51	42.88	54	-11.12	AV
H	5150	52.48	49.13	15.34	31.31	50	74	-24	PK
H	5150	37.47	49.13	15.34	31.31	34.99	54	-19.01	AV
H	5145	51.26	49.24	15.35	40.51	57.88	74	-16.12	PK
H	5145	35.78	49.24	15.35	40.51	42.4	54	-11.6	AV

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:5230									
V	5350	52.89	49.12	15.32	37.41	56.5	74	-17.5	PK
V	5350	37	49.12	15.32	37.41	40.61	54	-13.39	AV
V	5370	50.47	49.19	15.36	40.46	57.1	74	-16.9	PK
V	5370	36.26	49.19	15.36	40.46	42.89	54	-11.11	AV
H	5350	53.78	49.12	15.32	37.41	57.39	74	-16.61	PK
H	5350	41.45	49.12	15.32	37.41	45.06	54	-8.94	AV
H	5370	51.92	49.19	15.36	40.46	58.55	74	-15.45	PK
H	5370	35.87	49.19	15.36	40.46	42.5	54	-11.5	AV

Remark:

2. 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	5725	51	46.38	12.43	35.65	52.7	68.2	-15.5	PK
V	5725	40.59	46.38	12.43	35.65	42.29	54	-11.71	AV
V	5720	51.78	46.56	12.47	35.76	53.45	68.2	-14.75	PK
V	5720	41.33	46.56	12.47	35.76	43	54	-11	AV
H	5725	51.31	46.38	12.43	35.65	53.01	68.2	-15.19	PK
H	5725	40.42	46.38	12.43	35.65	42.12	54	-11.88	AV
H	5720	49.94	46.56	12.47	35.76	51.61	68.2	-16.59	PK
H	5720	40.42	46.56	12.47	35.76	42.09	54	-11.91	AV

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:5825									
V	5850	50.79	46.55	12.65	35.87	52.76	68.2	-15.44	PK
V	5850	40.51	46.55	12.65	35.87	42.48	54	-11.52	AV
V	5870	50.77	46.58	12.67	35.93	52.79	68.2	-15.41	PK
V	5870	40.26	46.58	12.67	35.93	42.28	54	-11.72	AV
H	5850	50.21	46.55	12.65	35.87	52.18	68.2	-16.02	PK
H	5850	40.26	46.55	12.65	35.87	42.23	54	-11.77	AV
H	5870	50.77	46.58	12.67	35.93	52.79	68.2	-15.41	PK
H	5870	39.99	46.58	12.67	35.93	42.01	54	-11.99	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	5725	55.44	47.36	13.18	36.26	57.52	68.2	-10.68	PK
V	5725	43.11	47.36	13.18	36.26	45.19	54	-8.81	AV
V	5720	56.04	47.38	13.2	36.29	58.15	68.2	-10.05	PK
V	5720	42.5	47.38	13.2	36.29	44.61	54	-9.39	AV
H	5725	55.82	47.36	13.18	36.26	57.9	68.2	-10.3	PK
H	5725	42.56	47.36	13.18	36.26	44.64	54	-9.36	AV
H	5720	55.37	47.38	13.2	36.29	57.48	68.2	-10.72	PK
H	5720	42.51	47.38	13.2	36.29	44.62	54	-9.38	AV

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:5825									
V	5850	50.31	48.32	15.24	37.37	54.6	68.2	-13.6	PK
V	5850	40.52	48.32	15.24	37.37	44.81	54	-9.19	AV
V	5870	51.6	48.36	15.27	37.39	55.9	68.2	-12.3	PK
V	5870	41.28	48.36	15.27	37.39	45.58	54	-8.42	AV
H	5850	51.36	48.32	15.24	37.37	55.65	68.2	-12.55	PK
H	5850	41.79	48.32	15.24	37.37	46.08	54	-7.92	AV
H	5870	51.53	48.36	15.27	37.39	55.83	68.2	-12.37	PK
H	5870	40.71	48.36	15.27	37.39	45.01	54	-8.99	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	5725	50.42	46.38	12.43	35.65	52.12	68.2	-16.08	PK
V	5725	41.66	46.38	12.43	35.65	43.36	54	-10.64	AV
V	5720	51.31	46.56	12.47	35.76	52.98	68.2	-15.22	PK
V	5720	41.33	46.56	12.47	35.76	43	54	-11	AV
H	5725	50.69	46.38	12.43	35.65	52.39	68.2	-15.81	PK
H	5725	40.35	46.38	12.43	35.65	42.05	54	-11.95	AV
H	5720	51.81	46.56	12.47	35.76	53.48	68.2	-14.72	PK
H	5720	40.99	46.56	12.47	35.76	42.66	54	-11.34	AV

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:5825									
V	5850	51.38	46.55	12.65	35.87	53.35	68.2	-14.85	PK
V	5850	40.87	46.55	12.65	35.87	42.84	54	-11.16	AV
V	5870	52.03	46.58	12.67	35.93	54.05	68.2	-14.15	PK
V	5870	41.08	46.58	12.67	35.93	43.1	54	-10.9	AV
H	5850	51.38	46.55	12.65	35.87	53.35	68.2	-14.85	PK
H	5850	41.07	46.55	12.65	35.87	43.04	54	-10.96	AV
H	5870	52.03	46.58	12.67	35.93	54.05	68.2	-14.15	PK
H	5870	40.97	46.58	12.67	35.93	42.99	54	-11.01	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.

802.11ax HE20

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	5725	50.42	47.36	13.18	36.26	52.5	68.2	-15.7	PK
V	5725	41.66	47.36	13.18	36.26	43.74	54	-10.26	AV
V	5720	51.31	47.38	13.2	36.29	53.42	68.2	-14.78	PK
V	5720	41.33	47.38	13.2	36.29	43.44	54	-10.56	AV
H	5725	50.69	47.36	13.18	36.26	52.77	68.2	-15.43	PK
H	5725	40.35	47.36	13.18	36.26	42.43	54	-11.57	AV
H	5720	51.81	47.38	13.2	36.29	53.92	68.2	-14.28	PK
H	5720	40.99	47.38	13.2	36.29	43.1	54	-10.9	AV

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:5825									
V	5850	51.49	46.55	12.65	35.87	53.46	68.2	-14.74	PK
V	5850	40.98	46.55	12.65	35.87	42.95	54	-11.05	AV
V	5870	52.14	46.58	12.67	35.93	54.16	68.2	-14.04	PK
V	5870	41.19	46.58	12.67	35.93	43.21	54	-10.79	AV
H	5850	51.49	46.55	12.65	35.87	53.46	68.2	-14.74	PK
H	5850	41.18	46.55	12.65	35.87	43.15	54	-10.85	AV
H	5870	52.14	46.58	12.67	35.93	54.16	68.2	-14.04	PK
H	5870	41.08	46.58	12.67	35.93	43.1	54	-10.9	AV

Remark:

2. 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	5725	56.77	46.38	12.43	35.65	58.47	68.2	-9.73	PK
V	5725	43.84	46.38	12.43	35.65	45.54	54	-8.46	AV
V	5720	56.93	46.56	12.47	35.76	58.6	68.2	-9.6	PK
V	5720	43.36	46.56	12.47	35.76	45.03	54	-8.97	AV
H	5725	55.82	46.38	12.43	35.65	57.52	68.2	-10.68	PK
H	5725	42.49	46.38	12.43	35.65	44.19	54	-9.81	AV
H	5720	55.55	46.56	12.47	35.76	57.22	68.2	-10.98	PK
H	5720	42.82	46.56	12.47	35.76	44.49	54	-9.51	AV

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:5795									
V	5850	51.38	46.55	12.65	35.87	53.35	68.2	-14.85	PK
V	5850	41.78	46.55	12.65	35.87	43.75	54	-10.25	AV
V	5870	51.38	46.58	12.67	35.93	53.4	68.2	-14.8	PK
V	5870	42	46.58	12.67	35.93	44.02	54	-9.98	AV
H	5850	51.38	46.55	12.65	35.87	53.35	68.2	-14.85	PK
H	5850	41.66	46.55	12.65	35.87	43.63	54	-10.37	AV
H	5870	51.44	46.58	12.67	35.93	53.46	68.2	-14.74	PK
H	5870	40.29	46.58	12.67	35.93	42.31	54	-11.69	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	5725	51.31	47.36	13.18	36.26	53.39	68.2	-14.81	PK
V	5725	41.47	47.36	13.18	36.26	43.55	54	-10.45	AV
V	5720	51.55	47.38	13.2	36.29	53.66	68.2	-14.54	PK
V	5720	41.8	47.38	13.2	36.29	43.91	54	-10.09	AV
H	5725	51.7	47.36	13.18	36.26	53.78	68.2	-14.42	PK
H	5725	40.28	47.36	13.18	36.26	42.36	54	-11.64	AV
H	5720	51.35	47.38	13.2	36.29	53.46	68.2	-14.74	PK
H	5720	40.5	47.38	13.2	36.29	42.61	54	-11.39	AV

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:5795									
V	5850	51.38	48.32	15.24	37.37	55.67	68.2	-12.53	PK
V	5850	40.32	48.32	15.24	37.37	44.61	54	-9.39	AV
V	5870	51.76	48.36	15.27	37.39	56.06	68.2	-12.14	PK
V	5870	40.77	48.36	15.27	37.39	45.07	54	-8.93	AV
H	5850	51.58	48.32	15.24	37.37	55.87	68.2	-12.33	PK
H	5850	40.97	48.32	15.24	37.37	45.26	54	-8.74	AV
H	5870	51.35	48.36	15.27	37.39	55.65	68.2	-12.55	PK
H	5870	40.45	48.36	15.27	37.39	44.75	54	-9.25	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.

802.11ax HE40

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	5725	51.31	46.38	12.43	35.65	53.01	68.2	-15.19	PK
V	5725	41.47	46.38	12.43	35.65	43.17	54	-10.83	AV
V	5720	51.55	46.56	12.47	35.76	53.22	68.2	-14.98	PK
V	5720	41.8	46.56	12.47	35.76	43.47	54	-10.53	AV
H	5725	51.7	46.38	12.43	35.65	53.4	68.2	-14.8	PK
H	5725	40.28	46.38	12.43	35.65	41.98	54	-12.02	AV
H	5720	51.35	46.56	12.47	35.76	53.02	68.2	-15.18	PK
H	5720	40.5	46.56	12.47	35.76	42.17	54	-11.83	AV

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:5795									
V	5850	51.38	46.55	12.65	35.87	53.35	68.2	-14.85	PK
V	5850	40.32	46.55	12.65	35.87	42.29	54	-11.71	AV
V	5870	51.76	46.58	12.67	35.93	53.78	68.2	-14.42	PK
V	5870	40.77	46.58	12.67	35.93	42.79	54	-11.21	AV
H	5850	51.58	46.55	12.65	35.87	53.55	68.2	-14.65	PK
H	5850	40.97	46.55	12.65	35.87	42.94	54	-11.06	AV
H	5870	51.35	46.58	12.67	35.93	53.37	68.2	-14.83	PK
H	5870	40.45	46.58	12.67	35.93	42.47	54	-11.53	AV

Remark:

2. 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.

3.4 CONDUCTED BAND EMISSION MEASUREMENT

3.4.1 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	

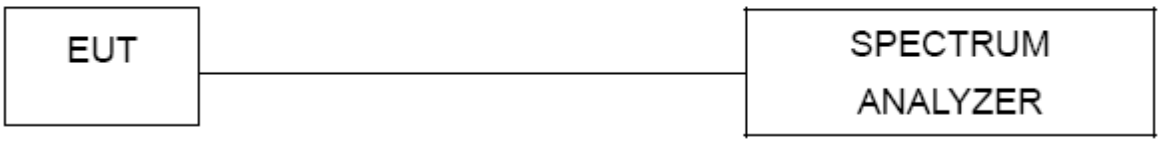
3.4.2 TEST PROCEDURE

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

3.4.3 DEVIATION FROM TEST STANDARD

No deviation

3.4.4 TEST SETUP



3.4.5 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.

3.4.6 TEST RESULT

The antenna gain is compensated in the test data.

For the measurement records, refer to the annex.

4. CONDUCTED OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	For FCC client devices: 250mW (24dBm)	5150-5250
	For RSS: e.i.r.p. power: not exceed 200 mW(23dBm) or 10 + 10 log10 B	
	250mW (24dBm) or 11 + 10 log10 B	5250-5350
	250mW (24dBm) or 11 + 10 log10 B	For FCC:5470-5725 For IC:5470-5600 5650-5725
	1 Watt (30dBm)	5725-5850
Note: For ISED: B=99% bandwidth.		

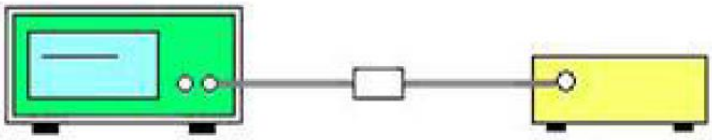
4.1.1 TEST PROCEDURE

a. Connect each EUT's antenna output to power meter by RF cable and attenuator
b. Get each antenna port's output power of EUT.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

1) The EUT is configured to transmit continuously.
2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

4.1.5 TEST RESULTS

For the measurement records, refer to the annex.

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

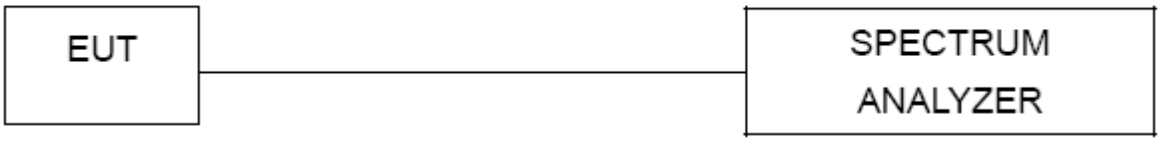
5.1.1 TEST PROCEDURE

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

For the measurement records, refer to the annex.

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

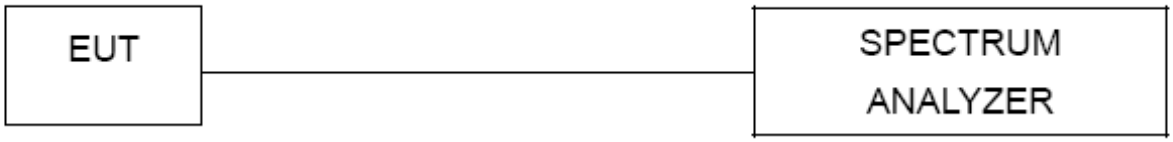
26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	30MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

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

For the measurement records, refer to the annex.

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.

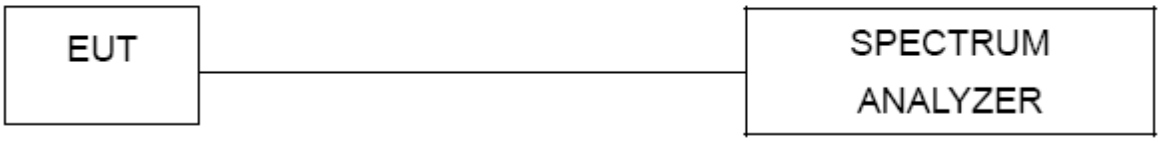
7.1.1 TEST PROCEDURE

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

For the measurement records, refer to the annex.

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.

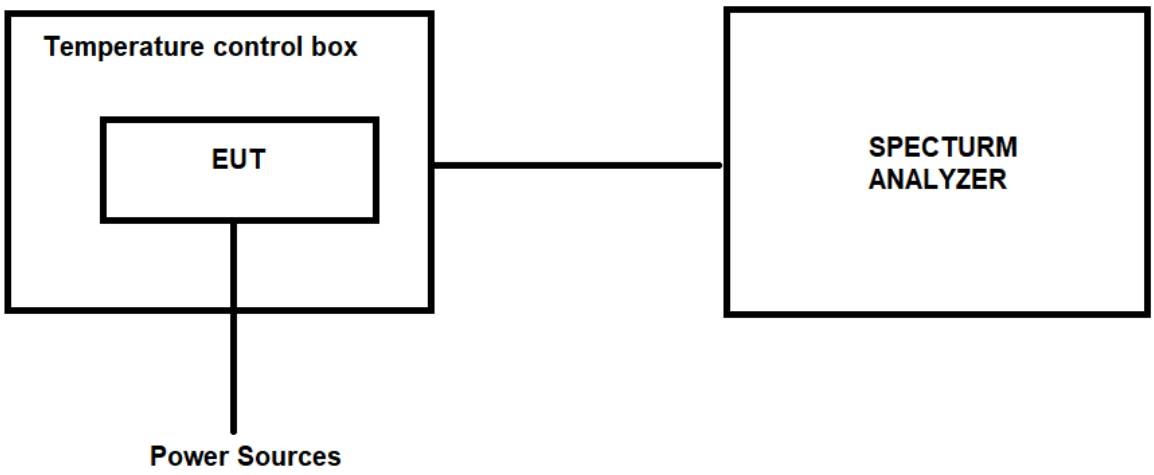
8.1.1 TEST PROCEDURE

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)				∆ Frequency (PPM)			
			802.11a	802.11n HT20	802.11ac HT20	802.11ax HE20	802.11a	802.11n HT20	802.11ac HT20	802.11ax HE20
132V	-20℃	5180	5180.0037	5180.0060	5180.0027	5180.0022	0.0037	0.006	0.0027	0.0022
		5220	5220.0036	5220.0015	5220.0028	5220.0023	0.0036	0.0015	0.0028	0.0023
		5240	5240.0025	5240.0030	5240.0017	5240.0012	0.0025	0.003	0.0017	0.0012
		5745	5745.0020	5745.0016	5745.0023	5745.0018	0.002	0.0016	0.0023	0.0018
		5785	5785.0025	5785.0028	5785.0030	5785.0025	0.0025	0.0028	0.003	0.0025
		5825	5825.0056	5825.0019	5825.0018	5825.0013	0.0056	0.0019	0.0018	0.0013
108V		5180	5180.0055	5180.0018	5180.0026	5180.0021	0.0055	0.0018	0.0026	0.0021
		5220	5220.0019	5220.0054	5220.0034	5220.0029	0.0019	0.0054	0.0034	0.0029
		5240	5240.0015	5240.0023	5240.0025	5240.0020	0.0015	0.0023	0.0025	0.002
		5745	5745.0013	5745.0021	5745.0016	5745.0011	0.0013	0.0021	0.0016	0.0011
		5785	5785.0045	5785.0020	5785.0027	5785.0022	0.0045	0.002	0.0027	0.0022
		5825	5825.0018	5825.0054	5825.0015	5825.0010	0.0018	0.0054	0.0015	0.001
120V	25℃	5180	5180.0025	5180.0015	5180.0030	5180.0025	0.0025	0.0015	0.003	0.0025
		5220	5220.0018	5220.0039	5220.0017	5220.0012	0.0018	0.0039	0.0017	0.0012
		5240	5240.0059	5240.0018	5240.0025	5240.0020	0.0059	0.0018	0.0025	0.002
		5745	5745.0057	5745.0027	5745.0049	5745.0044	0.0057	0.0027	0.0049	0.0044
		5785	5785.0065	5785.0018	5785.0054	5785.0049	0.0065	0.0018	0.0054	0.0049
		5825	5825.0014	5825.0019	5825.0048	5825.0043	0.0014	0.0019	0.0048	0.0043
132V	50℃	5180	5180.0016	5180.0034	5180.0024	5180.0019	0.0016	0.0034	0.0024	0.0019
		5220	5220.0039	5220.0043	5220.0026	5220.0021	0.0039	0.0043	0.0026	0.0021
		5240	5240.0058	5240.0025	5240.0023	5240.0018	0.0058	0.0025	0.0023	0.0018
		5745	5745.0027	5745.0049	5745.0025	5745.0020	0.0027	0.0049	0.0025	0.002
		5785	5785.0018	5785.0025	5785.0029	5785.0024	0.0018	0.0025	0.0029	0.0024
		5825	5825.0054	5825.0043	5825.0027	5825.0022	0.0054	0.0043	0.0027	0.0022
108V		5180	5180.0087	5180.0024	5180.0023	5180.0018	0.0087	0.0024	0.0023	0.0018
		5220	5220.0058	5220.0015	5220.0025	5220.0020	0.0058	0.0015	0.0025	0.002
		5240	5240.0087	5240.0030	5240.0047	5240.0042	0.0087	0.003	0.0047	0.0042
		5745	5745.0014	5745.0031	5745.0028	5745.0023	0.0014	0.0031	0.0028	0.0023
		5785	5785.0061	5785.0026	5785.0026	5785.0021	0.0061	0.0026	0.0026	0.0021
		5825	5825.0023	5825.0039	5825.0044	5825.0039	0.0023	0.0039	0.0044	0.0039

Note:The test result is PASS.

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (PPM)		
			802.11n HT40	802.11ac HT40	802.11ax HT40	802.11n HT40	802.11ac HT40	802.11ax HT40
132V	-20℃	5190	5190.0028	5190.0014	5190.0023	0.0028	0.0014	0.0023
		5230	5230.0037	5230.0023	5230.0032	0.0037	0.0023	0.0032
		5755	5755.0030	5755.0006	5755.0015	0.003	0.0006	0.0015
		5795	5795.0053	5795.0014	5795.0023	0.0053	0.0014	0.0023
108V		5190	5190.0018	5190.0013	5190.0022	0.0018	0.0013	0.0022
		5230	5230.0043	5230.0035	5230.0044	0.0043	0.0035	0.0044
		5755	5755.0041	5755.0014	5755.0023	0.0041	0.0014	0.0023
		5795	5795.0047	5795.0031	5795.0040	0.0047	0.0031	0.004
120V	25℃	5190	5190.0024	5190.0040	5190.0049	0.0024	0.004	0.0049
		5230	5230.0048	5230.0024	5230.0033	0.0048	0.0024	0.0033
		5755	5755.0025	5755.0003	5755.0012	0.0025	0.0003	0.0012
		5795	5795.0015	5795.0019	5795.0028	0.0015	0.0019	0.0028
132V	50℃	5190	5190.0016	5190.0016	5190.0025	0.0016	0.0016	0.0025
		5230	5230.0020	5230.0004	5230.0013	0.002	0.0004	0.0013
		5755	5755.0038	5755.0013	5755.0022	0.0038	0.0013	0.0022
		5795	5795.0023	5795.0021	5795.0030	0.0023	0.0021	0.003
108V		5190	5190.0029	5190.0006	5190.0015	0.0029	0.0006	0.0015
		5230	5230.0014	5230.0002	5230.0011	0.0014	0.0002	0.0011
		5755	5755.0025	5755.0004	5755.0013	0.0025	0.0004	0.0013
		5795	5795.0016	5795.0001	5795.0010	0.0016	0.0001	0.0010

Note:The test result is PASS.

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 SEUUP PHOTO

Reference to the appendix I for details.

12. EUT PHOTO

Reference to the appendix II for details.

※※※※※ **END OF REPORT** ※※※※※