TEST REPORT

Applicant:	Shenzhen Chuangruixin Technology Co.,Ltd.
Address of Applicant:	Floor 3, Building B5, Tower Xufa Science Park, Liantang Industrial City, Gongming Town, Shenzhen
Manufacturer/Factory:	Shenzhen Chuangruixin Technology Co.,Ltd.
Address of Manufacturer/Factory:	Floor 3, Building B5, Tower Xufa Science Park, Liantang Industrial City, Gongming Town, Shenzhen

Equipment Under Test (EUT)

Product Name:	NOTE BOOK
Model No.:	R9 Pro,X15,V11,R9 air,R9 max,R9 plus,R9 mini, V14 air,V14s,R10 MAX
Trade Mark:	DAYSKY，DERE
FCC ID:	2AXUH-R9
Applicable standards:	FCC CFR Title 47 Part 15 Subpart E Section 15.407
Date of sample receipt:	Oct.21 , 2020
Date of Test:	Oct. 23, 2020- Nov. 05, 2020
Date of report issued:	Nov. 05, 2020
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	Nov. 05, 2020	Original

Prepared By: ***Date:*** *Nov. 05, 2020*

Project Engineer

Check By: ***Date:*** *Nov. 05, 2020*

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.407(a)(3)	Pass
Channel Bandwidth	15.407(e)	Pass
Power Spectral Density	15.407(a)(3)	Pass
Band Edge	15.407(b)(4)	Pass
Spurious Emission	15.205/15.209/15.407(b)(4)	Pass
Frequency Stability	15.407(g)	Pass

Remarks：

1. Pass: The EUT complies with the essential requirements in the standard.

2. Test according to ANSI C63.10:2013.

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 General Description of EUT

Product Name:	NOTE BOOK
Model No.:	R9 Pro,X15,V11,R9 air,R9 max,R9 plus,R9 mini,V14 air,V14s,R10 MAX
Serial No.:	N/A
Hardware Version:	N/A
Software Version:	N/A
Test sample(s) ID:	GTS202011000005-01
Sample(s) Status:	Engineer sample
Operation Frequency:	802.11a/802.11n(HT20)/ 802.11ac(HT20): 5745MHz ~ 5825MHz 802.11n(HT40)/ 802.11ac(HT40): 5755MHz ~ 5795MHz 802.11ac(HT80): 5795MHz
Channel numbers:	802.11a/802.11n(HT20)/ 802.11ac(HT20): 5 802.11n(HT40)/ 802.11ac(HT40): 2 802.11ac(HT80): 1
Channel bandwidth:	802.11a/802.11n(HT20)/ 802.11ac(HT20): 20MHz 802.11n(HT40)/ 802.11ac(HT40) : 40MHz 802.11ac(HT80) : 80MHz
Modulation technology:	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	FPC Antenna
Antenna gain:	-0.5dBi(Declare by applicant)
Power supply:	DC 12V From AC adapter or 11.4Vdc From battery
Test model No.	R9 Pro
Remark: All models differences are only the model name and appearance color are different, others are the same.	

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	151	5755MHz	153	5765MHz	155	5775MHz
157	5785MHz	159	5795MHz	161	5805MHz	163	5815MHz
165	5825MHz	/					

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
	802.11 a /n(HT20)/ac(HT20)	802.11 n(HT40)/ac(HT40)	802.11 ac(HT80)
Lowest channel	5745	5755	5775
Middle channel	5785		
Highest channel	5825	5795	

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode

Remark: 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.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11a	6Mbps
802.11n(HT20) /ac(HT20)	6.5Mbps
802.11n(HT40)/ ac(HT40)	13Mbps
802.11ac(HT80)	24Mbps

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

● **IC —Registration No.: 9079A**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.
No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,
Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480
Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 25 2020	June. 24 2021
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 25 2020	June. 24 2021
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 25 2020	June. 24 2021
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 25 2020	June. 24 2021
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 25 2020	June. 24 2021
9	Coaxial Cable	GTS	N/A	GTS211	June. 25 2020	June. 24 2021
10	Coaxial cable	GTS	N/A	GTS210	June. 25 2020	June. 24 2021
11	Coaxial Cable	GTS	N/A	GTS212	June. 25 2020	June. 24 2021
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 25 2020	June. 24 2021
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 25 2020	June. 24 2021
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 25 2020	June. 24 2021
15	Band filter	Amindeon	82346	GTS219	June. 25 2020	June. 24 2021
16	Power Meter	Anritsu	ML2495A	GTS540	June. 25 2020	June. 24 2021
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 25 2020	June. 24 2021
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 25 2020	June. 24 2021
19	Splitter	Agilent	11636B	GTS237	June. 25 2020	June. 24 2021
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 25 2020	June. 24 2021
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 18 2020	Oct. 17 2021
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 18 2020	Oct. 17 2021
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 18 2020	Oct. 17 2021
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 25 2020	June. 24 2021

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 25 2020	June. 24 2021
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 25 2020	June. 24 2021
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 25 2020	June. 24 2021
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 25 2020	June. 24 2021
9	ISN	SCHWARZBECK	NTFM 8158	GTD565	June. 25 2020	June. 24 2021

RF Conducted Test:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 25 2020	June. 24 2021
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 25 2020	June. 24 2021
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 25 2020	June. 24 2021
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 25 2020	June. 24 2021
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 25 2020	June. 24 2021
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 25 2020	June. 24 2021
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 25 2020	June. 24 2021

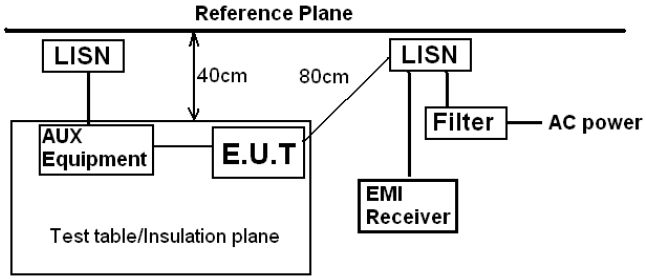
General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 25 2020	June. 24 2021
2	Barometer	ChangChun	DYM3	GTS255	June. 25 2020	June. 24 2021

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: *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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.*	
E.U.T Antenna:	
The antennas are FPC antenna, the best case gain of the antennas are -0.5dBi, reference to the appendix II for details	

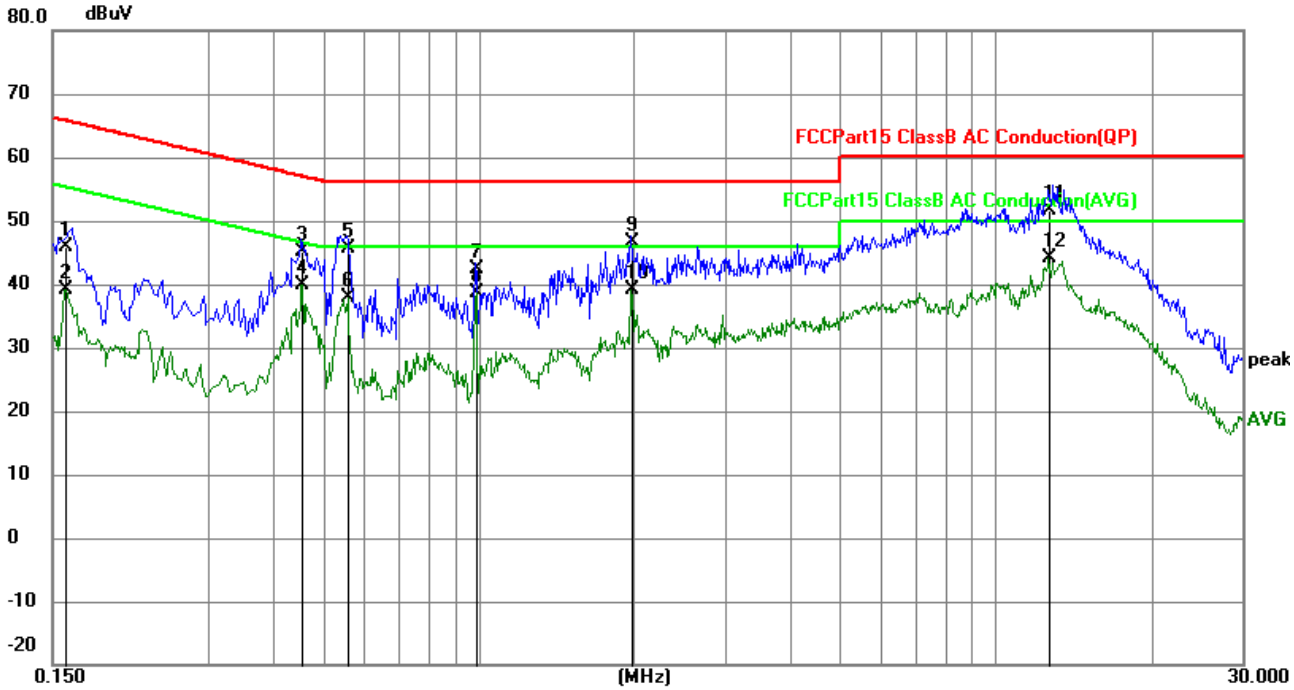
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 25 °C / Humid.: 52% / Press.: 1012mbar
Test voltage:	AC 120V, 60Hz
Test results:	Pass

Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

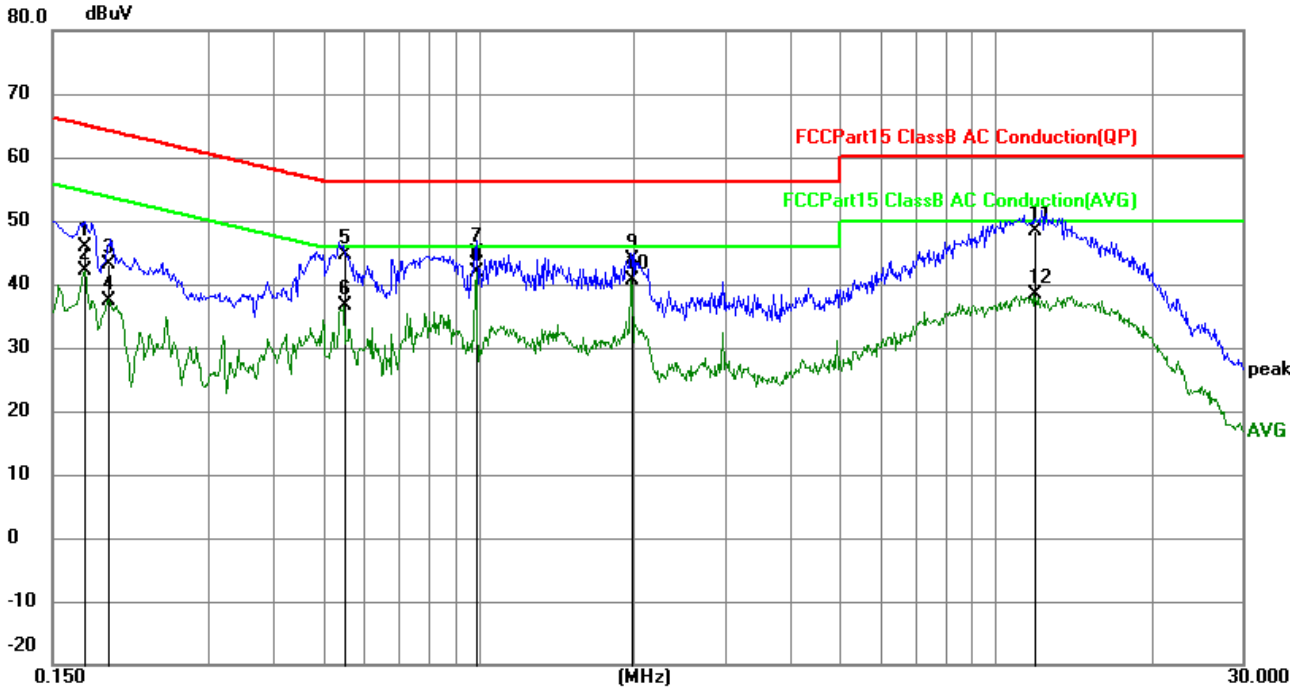
Measurement data

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1590	35.48	10.48	45.96	65.52	-19.56	QP
2	0.1590	28.76	10.48	39.24	55.52	-16.28	AVG
3	0.4561	34.64	10.37	45.01	56.76	-11.75	QP
4	0.4561	29.60	10.37	39.97	46.76	-6.79	AVG
5	0.5594	35.35	10.35	45.70	56.00	-10.30	QP
6	0.5594	27.43	10.35	37.78	46.00	-8.22	AVG
7	0.9909	32.20	10.29	42.49	56.00	-13.51	QP
8	0.9909	28.26	10.29	38.55	46.00	-7.45	AVG
9	1.9769	36.41	10.30	46.71	56.00	-9.29	QP
10	1.9769	28.85	10.30	39.15	46.00	-6.85	AVG
11	12.6645	41.10	10.41	51.51	60.00	-8.49	QP
12	12.6645	33.60	10.41	44.01	50.00	-5.99	AVG

Neutral:

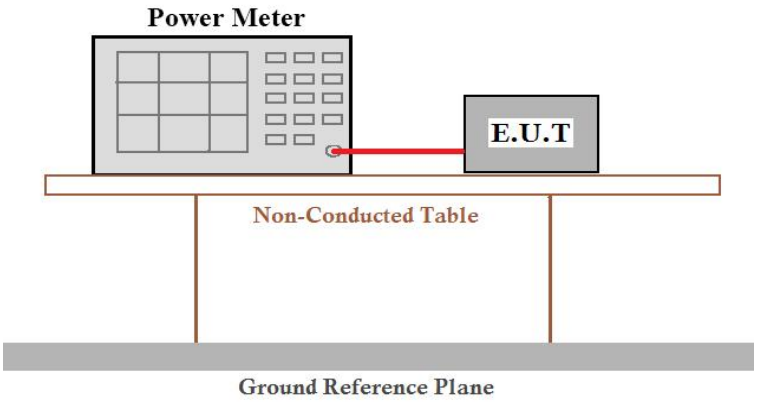


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1728	35.40	10.47	45.87	64.82	-18.95	QP
2	0.1728	31.59	10.47	42.06	54.82	-12.76	AVG
3	0.1922	32.62	10.46	43.08	63.94	-20.86	QP
4	0.1922	27.04	10.46	37.50	53.94	-16.44	AVG
5	0.5503	34.24	10.35	44.59	56.00	-11.41	QP
6	0.5503	26.18	10.35	36.53	46.00	-9.47	AVG
7	0.9909	34.47	10.29	44.76	56.00	-11.24	QP
8	0.9909	31.49	10.29	41.78	46.00	-4.22	AVG
9	1.9769	33.67	10.30	43.97	56.00	-12.03	QP
10	1.9769	30.26	10.30	40.56	46.00	-5.44	AVG
11	11.8856	38.09	10.41	48.50	60.00	-11.50	QP
12	11.8856	27.97	10.41	38.38	50.00	-11.62	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both *limits and measurement with the average detector receiver is unnecessary.*

7.3 Conducted Peak Output Power

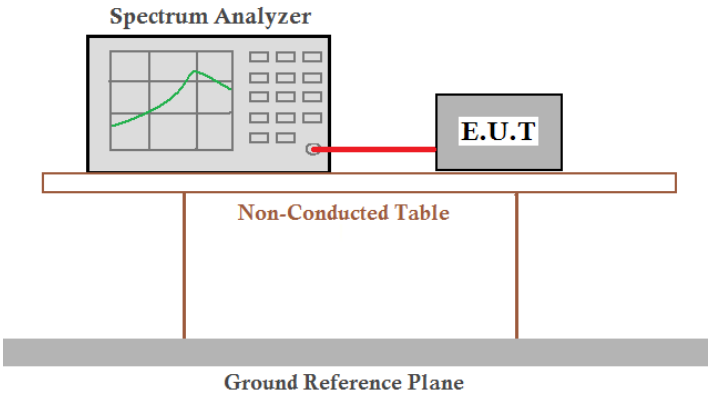
Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Test CH	Peak Output Power (dBm)						Limit (dBm)	Result
	802.11a	802.11n (HT20)	802.11n (HT40)	802.11ac (HT20)	802.11ac (HT40)	802.11ac (HT80)		
Lowest	6.13	6.05	6.27	6.49	6.43	5.44	30.00	Pass
Middle	6.71	6.65	---	6.78	---	---		
Highest	6.40	6.78	6.19	6.92	6.04	---		

Remark: “---“is not applicable

7.4 Channel Bandwidth

Test Requirement:	FCC Part15 E Section 15.407(e)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

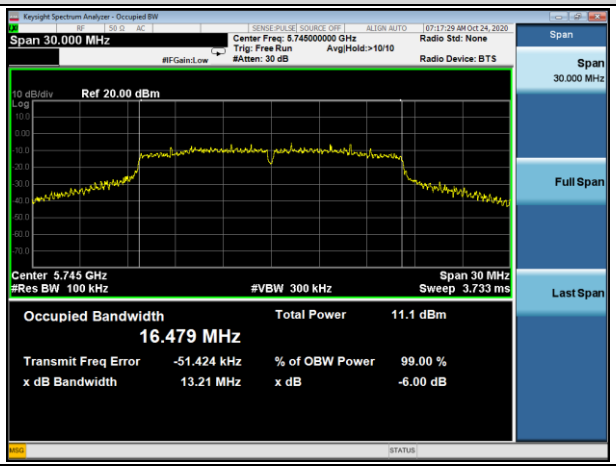
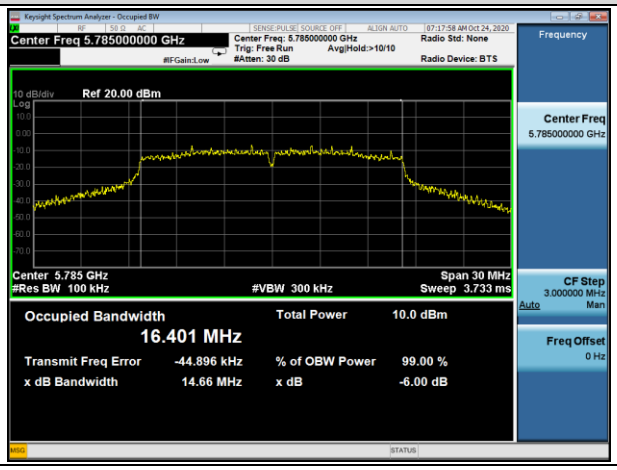
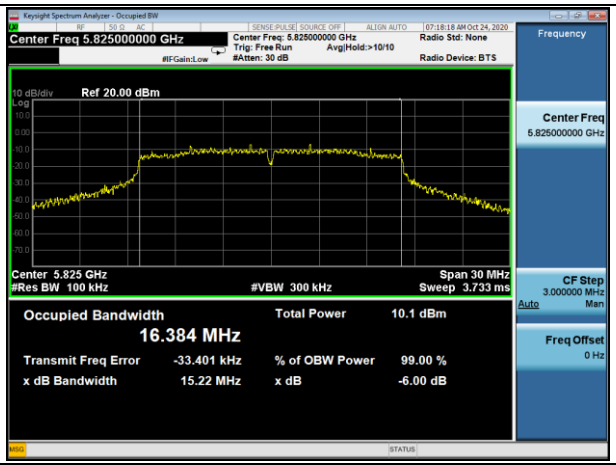
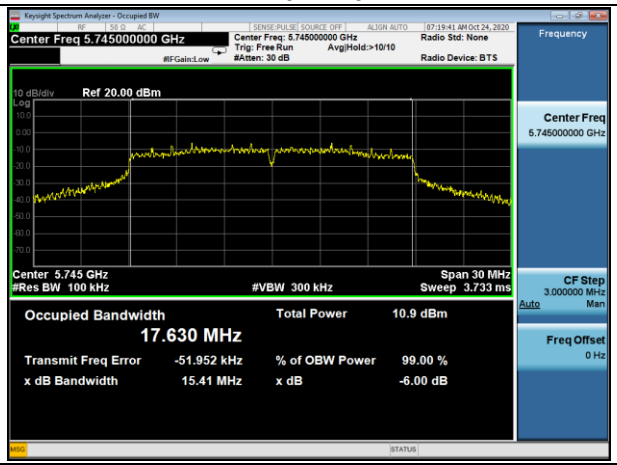
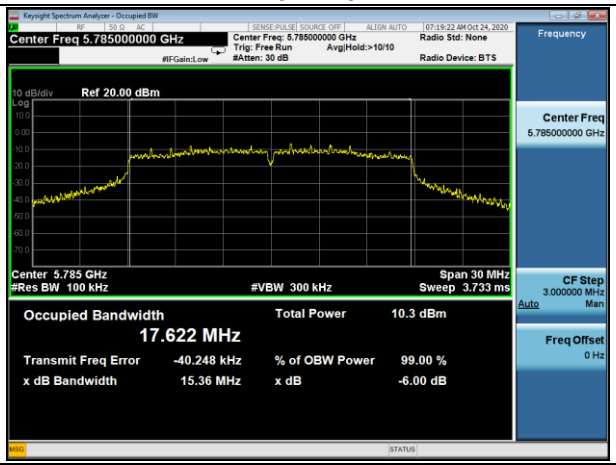
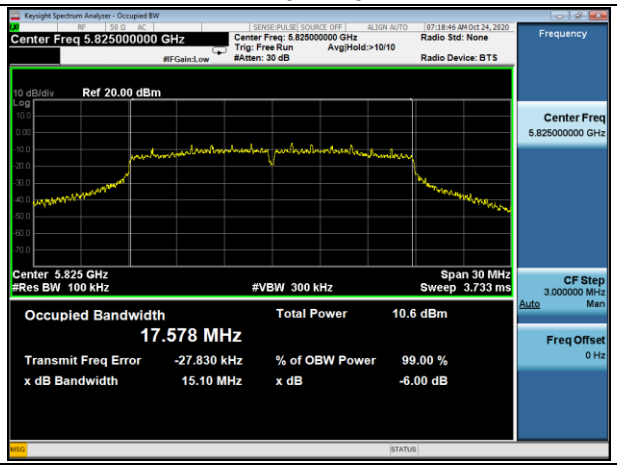
Measurement Data

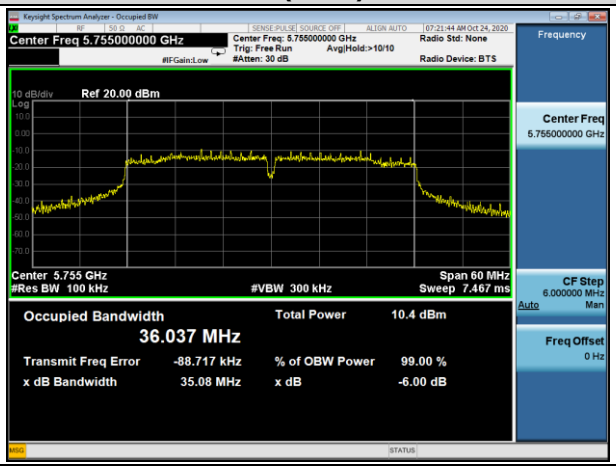
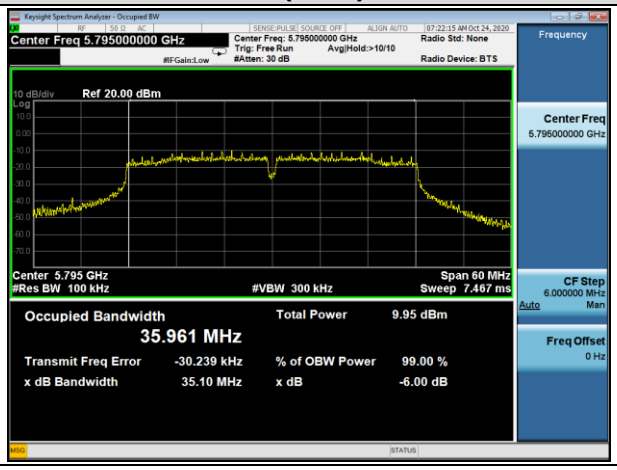
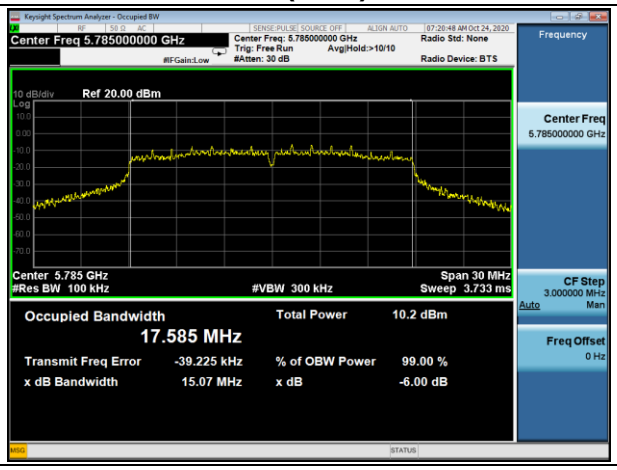
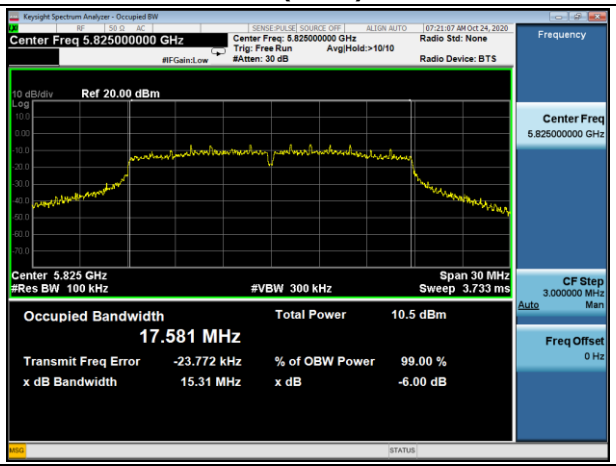
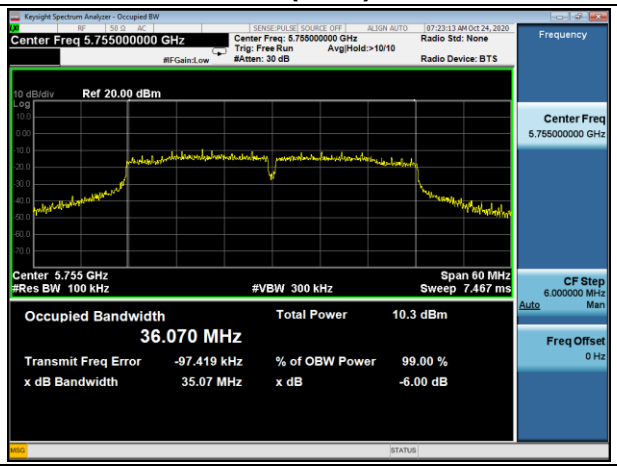
Test CH	Channel Bandwidth (MHz)			Limit (KHz)	Result
	802.11a	802.11n(HT20)	802.11n(HT40)		
Lowest	13.21	15.41	35.08	>500	Pass
Middle	14.66	15.36	---		
Highest	15.22	15.10	35.10		

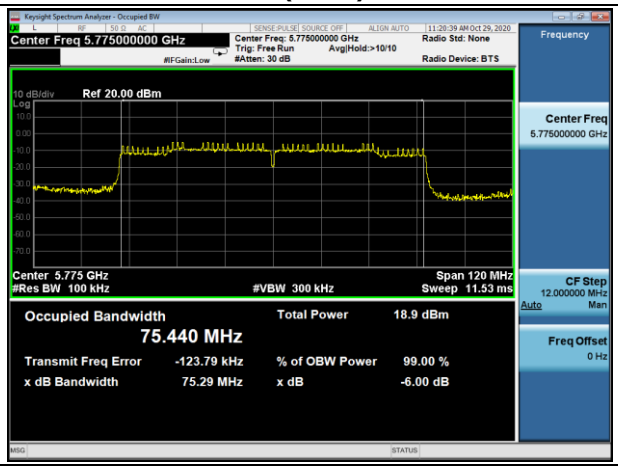
Test CH	Channel Bandwidth (MHz)			Limit (KHz)	Result
	802.11ac(HT20)	802.11ac(HT40)	802.11ac(HT80)		
Lowest	15.40	35.07	75.29	>500	Pass
Middle	15.07	---	---		
Highest	15.31	35.09	---		

Remark: “---“is not applicable

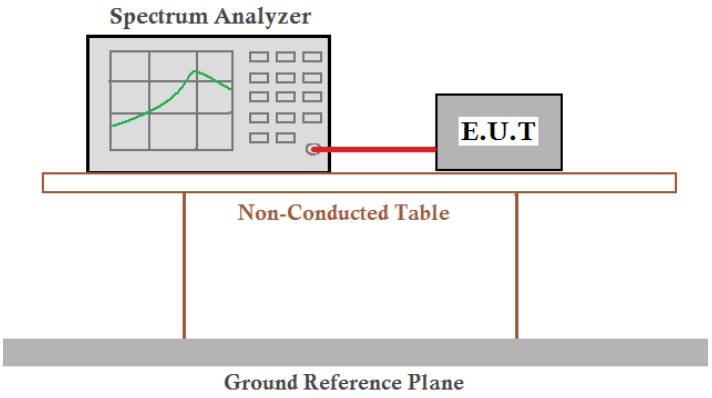
Test plot as follows:

802.11a 5745	802.11a 5785
	
802.11a 5825	**802.11n(HT20) 5745**
	
802.11n(HT20) 5785	**802.11n(HT20) 5825**
	

802.11n(HT40) 5755	802.11n(HT40) 5795
	
802.11ac(HT20) 5745	**802.11ac(HT20) 5785**
	
802.11ac(HT20) 5825	**802.11ac(HT40) 5755**
	

802.11ac(HT40) 5795	802.11ac(HT80) 5775
	

7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm/500kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

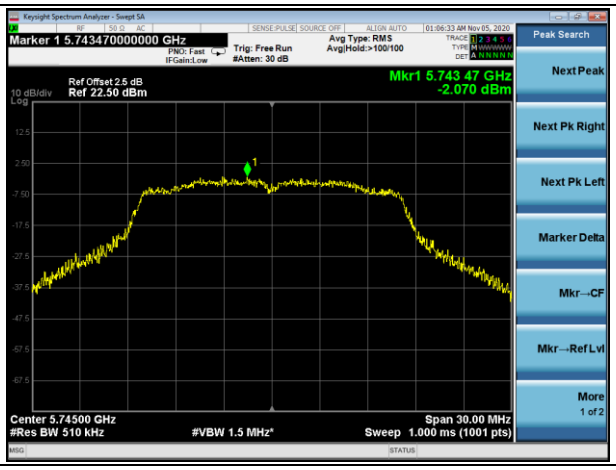
Note: If the measurement is X dBm/510kHz, thus X dBm/510kHz = $(10^{X/10})$*(500 / 510) dBm/500kHz

Test CH	Power Spectral Density (dBm/510kHz)			Power Spectral Density (dBm/500kHz)			Limit (dBm/500kHz)	Result
	802.11a	802.11n (HT20)	802.11n (HT40)	802.11a	802.11n (HT20)	802.11n (HT40)		
Lowest	-2.070	-3.407	-4.434	-2.131	-3.490	-4.539	30.00	Pass
Middle	-2.879	-3.129	---	-2.952	-3.206	---		
Highest	-3.596	-2.818	-5.681	-3.682	-2.890	-5.821		

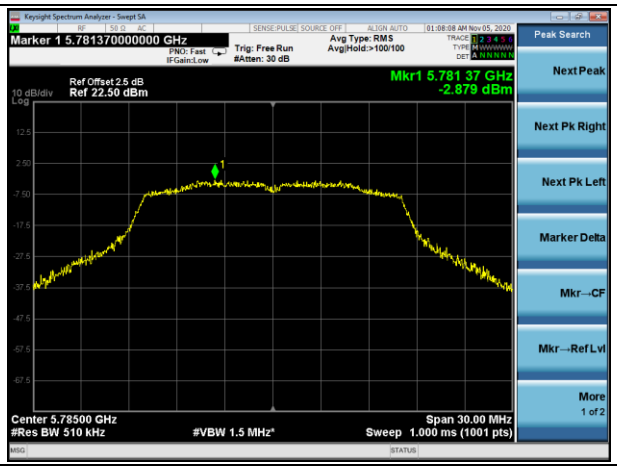
Test CH	Power Spectral Density (dBm/510kHz)			Power Spectral Density (dBm/500kHz)			Limit (dBm/500kHz)	Result
	802.11ac (HT20)	802.11ac(HT40)	802.11n (HT80)	802.11ac (HT20)	802.11ac (HT40)	802.11n (HT80)		
Lowest	-2.302	-4.254	-8.850	-2.366	-4.355	-9.146	30.00	Pass
Middle	-3.322	---	---	-3.403	---	---		
Highest	-2.694	-6.893	---	-2.764	-7.080	---		

Remark: “---“is not applicable

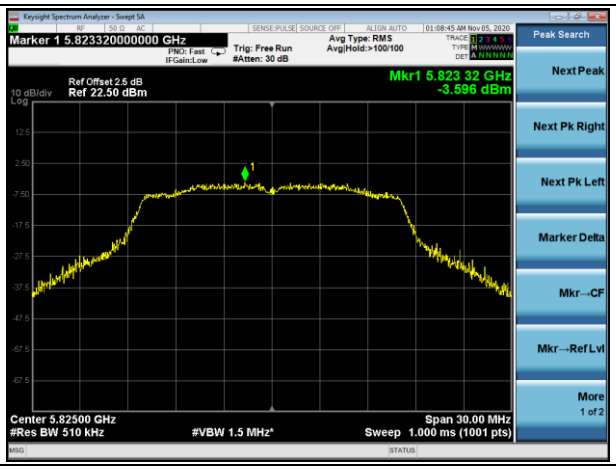
Test plot as follows:



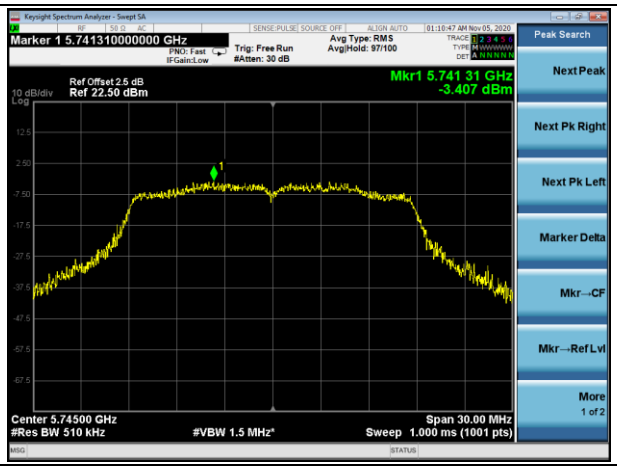
802.11a 5745



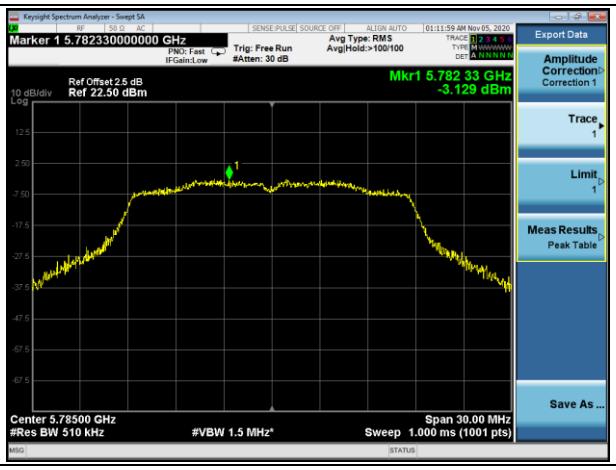
802.11a 5785



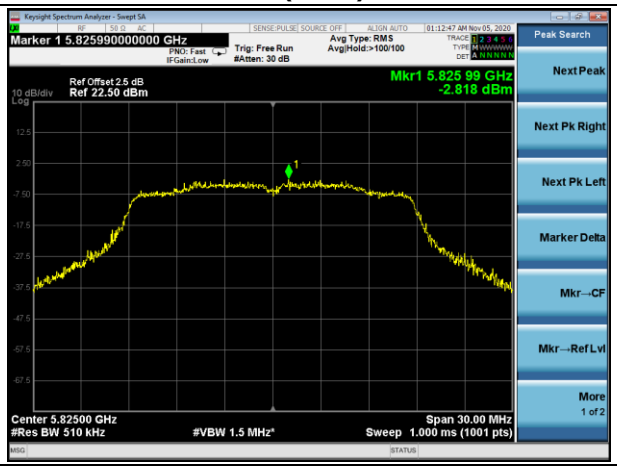
802.11a 5825



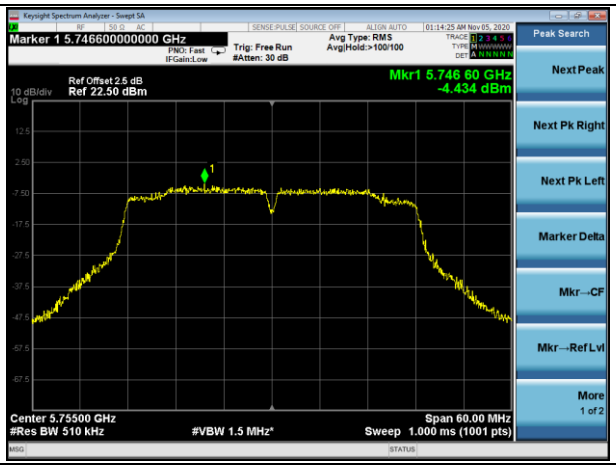
802.11n(HT20) 5745



802.11n(HT20) 5785

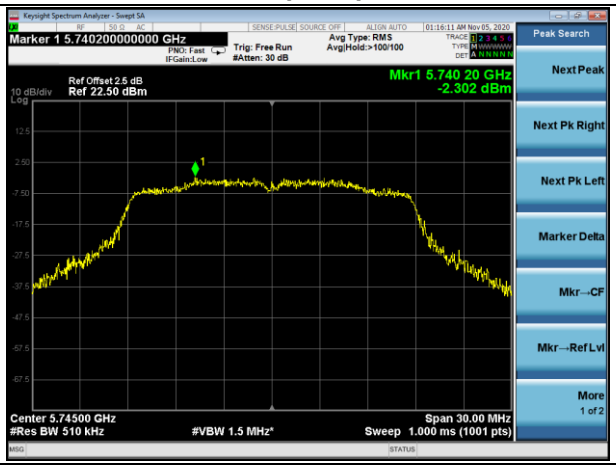


802.11n(HT20) 5825

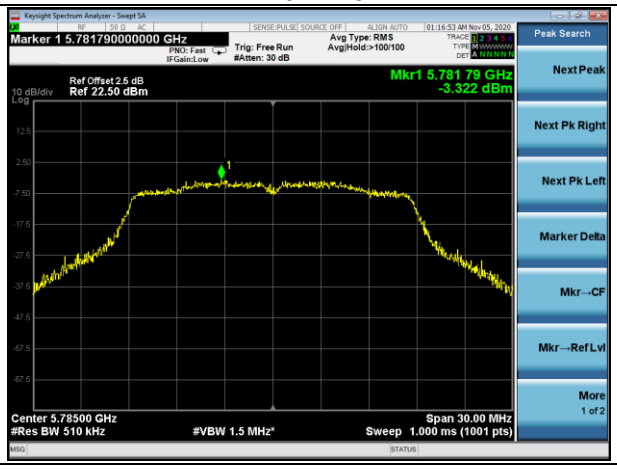


802.11n(HT40) 5755

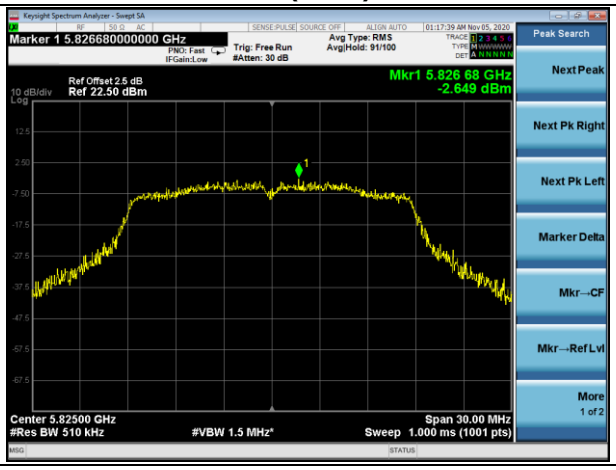
802.11n(HT40) 5795



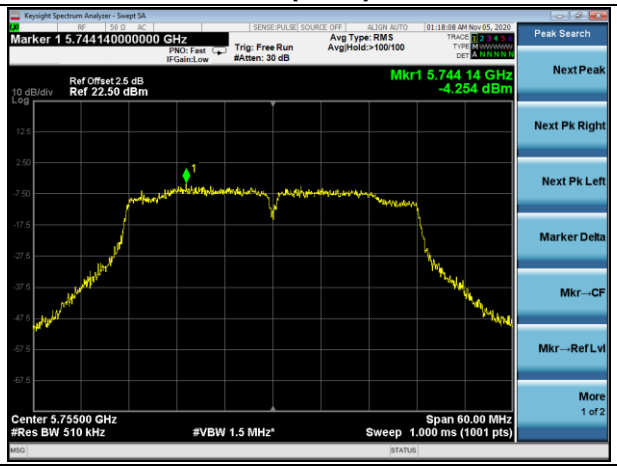
802.11ac(HT20) 5745



802.11ac(HT20) 5785



802.11ac(HT20) 5825

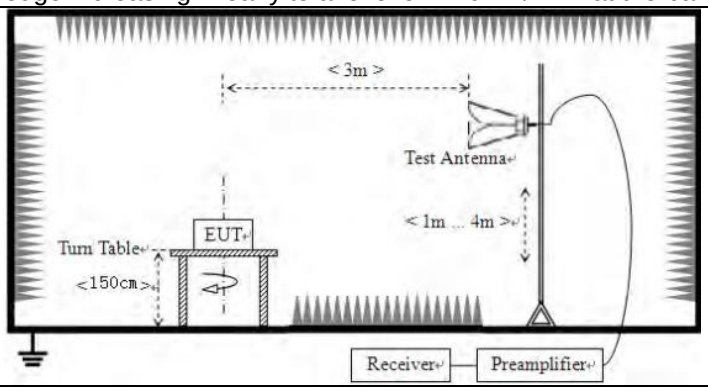


802.11ac(HT40) 5755

802.11ac(HT40) 5795	**802.11ac(HT80) 5775**

7.6 Band edge

7.6.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013
Test Frequency Range:	9kHz to 40GHz, only worse case is reported
Test site:	Measurement Distance: 3m
Receiver setup:	Frequency / Detector / RBW / VBW / Value Above 1GHz / Peak / 1MHz / 3MHz / Peak Above 1GHz / RMS / 1MHz / 3MHz / RMS
Limit:	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.
Test setup:	
Test Procedure:	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. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. 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. 4. 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. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. 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. 7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remarks:

1. *All antennas was tested, only show the worst case ant 1 (module2)test data.*
2. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
3. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
4. *The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.*
5. *According to KDB 789033 D02v02r01 section G) 1) d),for measurements above 1000 MHz @3m distance, the limit of field strength is computed as follows:*

   E[dBuV/m] = EIRP[dBm] + 95.2;

   E[dBuV/m] = -27 + 95.2 = 68.2dBuV/m.

   E[dBuV/m] = 10 + 95.2 = 105.2dBuV/m.

   E[dBuV/m] = 15.6 + 95.2 = 110.8dBuV/m.

   E[dBuV/m] = 27 + 95.2 = 122.2dBuV/m

Measurement data:

IEEE 802.11a								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	30.86	32.36	9.72	23.83	49.11	68.2	-19.09	Horizontal
5700.00	29.24	32.50	9.79	23.84	47.69	105.2	-57.51	Horizontal
5720.00	31.32	32.53	9.81	23.85	49.81	110.8	-60.99	Horizontal
5725.00	32.26	32.53	9.83	23.86	50.76	122.2	-71.44	Horizontal
5850.00	29.14	32.70	9.99	23.87	47.96	122.2	-74.24	Horizontal
5855.00	28.06	32.72	9.99	23.88	46.89	110.8	-63.91	Horizontal
5875.00	31.18	32.74	10.04	23.89	50.07	105.2	-55.13	Horizontal
5925.00	36.89	32.80	10.11	23.90	55.9	68.2	-12.3	Horizontal
5650.00	32.51	32.36	9.72	23.83	50.76	68.2	-17.44	Vertical
5700.00	35.16	32.50	9.79	23.84	53.61	105.2	-51.59	Vertical
5720.00	33.11	32.53	9.81	23.85	51.6	110.8	-59.2	Vertical
5725.00	31.54	32.53	9.83	23.86	50.04	122.2	-72.16	Vertical
5850.00	36.86	32.70	9.99	23.87	55.68	122.2	-66.52	Vertical
5855.00	34.58	32.72	9.99	23.88	53.41	110.8	-57.39	Vertical
5875.00	31.19	32.74	10.04	23.89	50.08	105.2	-55.12	Vertical
5925.00	30.68	32.80	10.11	23.90	49.69	68.2	-18.51	Vertical

IEEE 802.11n HT20								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	32.24	32.36	9.72	23.83	50.49	68.2	-17.71	Horizontal
5700.00	31.78	32.50	9.79	23.84	50.23	105.2	-54.97	Horizontal
5720.00	34.92	32.53	9.81	23.85	53.41	110.8	-57.39	Horizontal
5725.00	35.32	32.53	9.83	23.86	53.82	122.2	-68.38	Horizontal
5850.00	34.65	32.70	9.99	23.87	53.47	122.2	-68.73	Horizontal
5855.00	33.98	32.72	9.99	23.88	52.81	110.8	-57.99	Horizontal
5875.00	36.42	32.74	10.04	23.89	55.31	105.2	-49.89	Horizontal
5925.00	35.96	32.80	10.11	23.90	54.97	68.2	-13.23	Horizontal
5650.00	33.18	32.36	9.72	23.83	51.43	68.2	-16.77	Vertical
5700.00	36.29	32.50	9.79	23.84	54.74	105.2	-50.46	Vertical
5720.00	32.58	32.53	9.81	23.85	51.07	110.8	-59.73	Vertical
5725.00	32.36	32.53	9.83	23.86	50.86	122.2	-71.34	Vertical
5850.00	35.87	32.70	9.99	23.87	54.69	122.2	-67.51	Vertical
5855.00	34.54	32.72	9.99	23.88	53.37	110.8	-57.43	Vertical
5875.00	36.87	32.74	10.04	23.89	55.76	105.2	-49.44	Vertical
5925.00	32.24	32.80	10.11	23.90	51.25	68.2	-16.95	Vertical

IEEE 802.11n HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	35.78	32.36	9.72	23.83	54.03	68.2	-14.17	Horizontal
5700.00	29.31	32.50	9.79	23.84	47.76	105.2	-57.44	Horizontal
5720.00	36.54	32.53	9.81	23.85	55.03	110.8	-55.77	Horizontal
5725.00	35.43	32.53	9.83	23.86	53.93	122.2	-68.27	Horizontal
5850.00	36.76	32.70	9.99	23.87	55.58	122.2	-66.62	Horizontal
5855.00	36.36	32.72	9.99	23.88	55.19	110.8	-55.61	Horizontal
5875.00	32.13	32.74	10.04	23.89	51.02	105.2	-54.18	Horizontal
5925.00	35.78	32.80	10.11	23.90	54.79	68.2	-13.41	Horizontal
5650.00	32.36	32.36	9.72	23.83	50.61	68.2	-17.59	Vertical
5700.00	31.23	32.50	9.79	23.84	49.68	105.2	-55.52	Vertical
5720.00	32.47	32.53	9.81	23.85	50.96	110.8	-59.84	Vertical
5725.00	32.76	32.53	9.83	23.86	51.26	122.2	-70.94	Vertical
5850.00	33.25	32.70	9.99	23.87	52.07	122.2	-70.13	Vertical
5855.00	33.19	32.72	9.99	23.88	52.02	110.8	-58.78	Vertical
5875.00	32.18	32.74	10.04	23.89	51.07	105.2	-54.13	Vertical
5925.00	32.36	32.80	10.11	23.90	51.37	68.2	-16.83	Vertical

IEEE 802.11ac HT20								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	35.25	32.36	9.72	23.83	53.50	68.200	-14.70	Horizontal
5700.00	32.17	32.50	9.79	23.84	50.62	105.2	-54.58	Horizontal
5720.00	35.44	32.53	9.81	23.85	53.93	110.8	-56.87	Horizontal
5725.00	36.79	32.53	9.83	23.86	55.29	122.2	-66.91	Horizontal
5850.00	36.12	32.70	9.99	23.87	54.94	122.2	-67.26	Horizontal
5855.00	34.56	32.72	9.99	23.88	53.39	110.8	-57.41	Horizontal
5875.00	35.17	32.74	10.04	23.89	54.06	105.2	-51.14	Horizontal
5925.00	36.87	32.80	10.11	23.90	55.88	68.2	-12.32	Horizontal
5650.00	32.69	32.36	9.72	23.83	50.94	68.2	-17.26	Vertical
5700.00	36.88	32.50	9.79	23.84	55.33	105.2	-49.87	Vertical
5720.00	35.58	32.53	9.81	23.85	54.07	110.8	-56.73	Vertical
5725.00	30.47	32.53	9.83	23.86	48.97	122.2	-73.23	Vertical
5850.00	35.19	32.70	9.99	23.87	54.01	122.2	-68.19	Vertical
5855.00	32.43	32.72	9.99	23.88	51.26	110.8	-59.54	Vertical
5875.00	32.79	32.74	10.04	23.89	51.68	105.2	-53.52	Vertical
5925.00	35.37	32.80	10.11	23.90	54.38	68.2	-13.82	Vertical

IEEE 802.11ac HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	35.98	32.36	9.72	23.83	54.23	68.2	-13.97	Horizontal
5700.00	33.16	32.50	9.79	23.84	51.61	105.2	-53.59	Horizontal
5720.00	36.87	32.53	9.81	23.85	55.36	110.8	-55.44	Horizontal
5725.00	36.62	32.53	9.83	23.86	55.12	122.2	-67.08	Horizontal
5850.00	37.36	32.70	9.99	23.87	56.18	122.2	-66.02	Horizontal
5855.00	38.72	32.72	9.99	23.88	57.55	110.8	-53.25	Horizontal
5875.00	36.16	32.74	10.04	23.89	55.05	105.2	-50.15	Horizontal
5925.00	32.17	32.80	10.11	23.90	51.18	68.20	-17.02	Horizontal
5650.00	31.49	32.36	9.72	23.83	49.74	68.2	-18.46	Vertical
5700.00	36.45	32.50	9.79	23.84	54.90	105.2	-50.30	Vertical
5720.00	35.61	32.53	9.81	23.85	54.10	110.8	-56.70	Vertical
5725.00	33.26	32.53	9.83	23.86	51.76	122.2	-70.44	Vertical
5850.00	33.48	32.70	9.99	23.87	52.3	122.2	-69.90	Vertical
5855.00	31.76	32.72	9.99	23.88	50.59	110.8	-60.21	Vertical
5875.00	32.38	32.74	10.04	23.89	51.27	105.2	-53.93	Vertical
5925.00	33.57	32.80	10.11	23.90	52.58	68.2	-15.62	Vertical

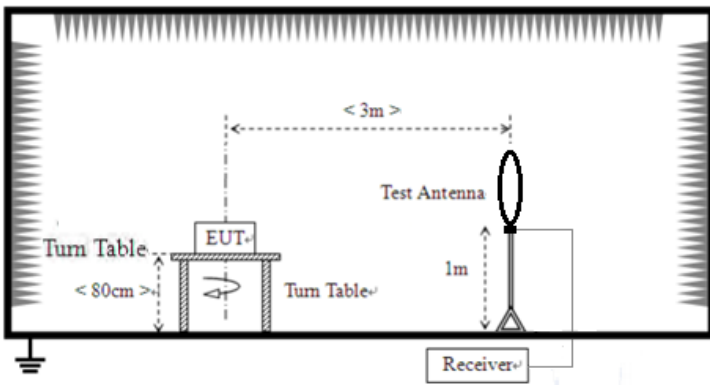
IEEE 802.11ac HT80								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650.00	30.15	32.36	9.72	23.83	48.40	68.2	-19.80	Horizontal
5700.00	29.38	32.50	9.79	23.84	47.83	105.2	-57.37	Horizontal
5720.00	32.15	32.53	9.81	23.85	50.64	110.8	-60.16	Horizontal
5725.00	33.44	32.53	9.83	23.86	51.94	122.2	-70.26	Horizontal
5850.00	31.26	32.70	9.99	23.87	50.08	122.2	-72.12	Horizontal
5855.00	31.47	32.72	9.99	23.88	50.30	110.8	-60.50	Horizontal
5875.00	34.38	32.74	10.04	23.89	53.27	105.2	-51.93	Horizontal
5925.00	33.18	32.80	10.11	23.90	52.19	68.2	-16.01	Horizontal
5650.00	31.39	32.36	9.72	23.83	49.64	68.2	-18.56	Vertical
5700.00	33.08	32.50	9.79	23.84	51.53	105.2	-53.67	Vertical
5720.00	30.14	32.53	9.81	23.85	48.63	110.8	-62.17	Vertical
5725.00	30.23	32.53	9.83	23.86	48.73	122.2	-73.47	Vertical
5850.00	33.82	32.70	9.99	23.87	52.64	122.2	-69.56	Vertical
5855.00	32.47	32.72	9.99	23.88	51.30	110.8	-59.50	Vertical
5875.00	33.92	32.74	10.04	23.89	52.81	105.2	-52.39	Vertical
5925.00	30.73	32.80	10.11	23.90	49.74	68.2	-18.46	Vertical

Remark:

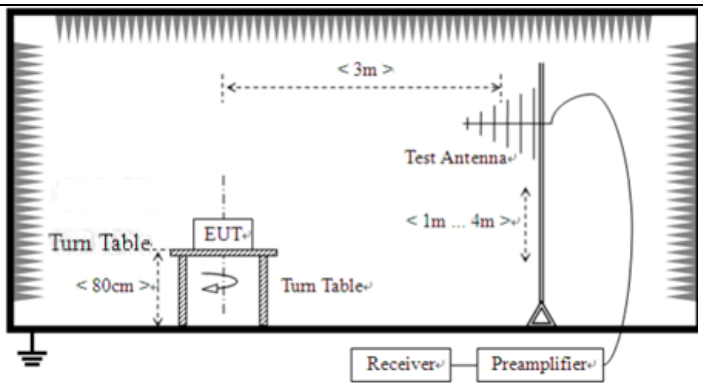
1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

7.7 Spurious Emission

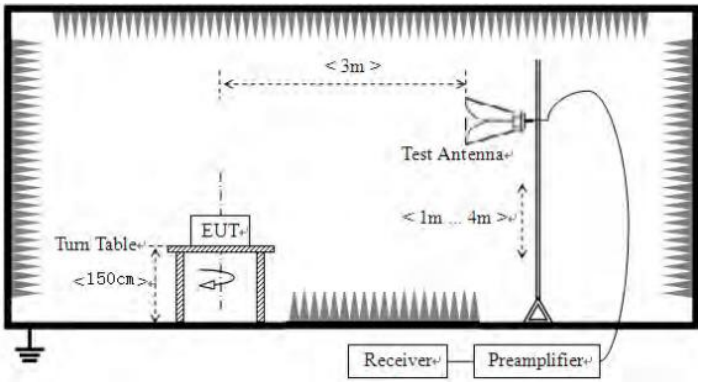
7.7.1 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>9kHz to 40GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr>
<tr><td>9kHz-150KHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (uV/m)</th><th>Value</th><th>Measurement Distance</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>QP</td><td>30m</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>QP</td><td rowspan="4">3m</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>QP</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>QP</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>QP</td></tr>
</table>
<table>
<tr><th>Frequency</th><th>Limit (dBm/MHz)</th><th>Remark</th></tr>
<tr><td>Above 1GHz</td><td>-27.0</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions from 9kHz to 30MHz
 

For radiated emissions from 30MHz to1GHz</td></tr>
</table>



For radiated emissions above 1GHz



Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. 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. 4. 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. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. 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. 7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test

	worst case mode is recorded in the report.					
Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test voltage:	AC 120V, 60Hz					
Test results:	Pass					

Remarks:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

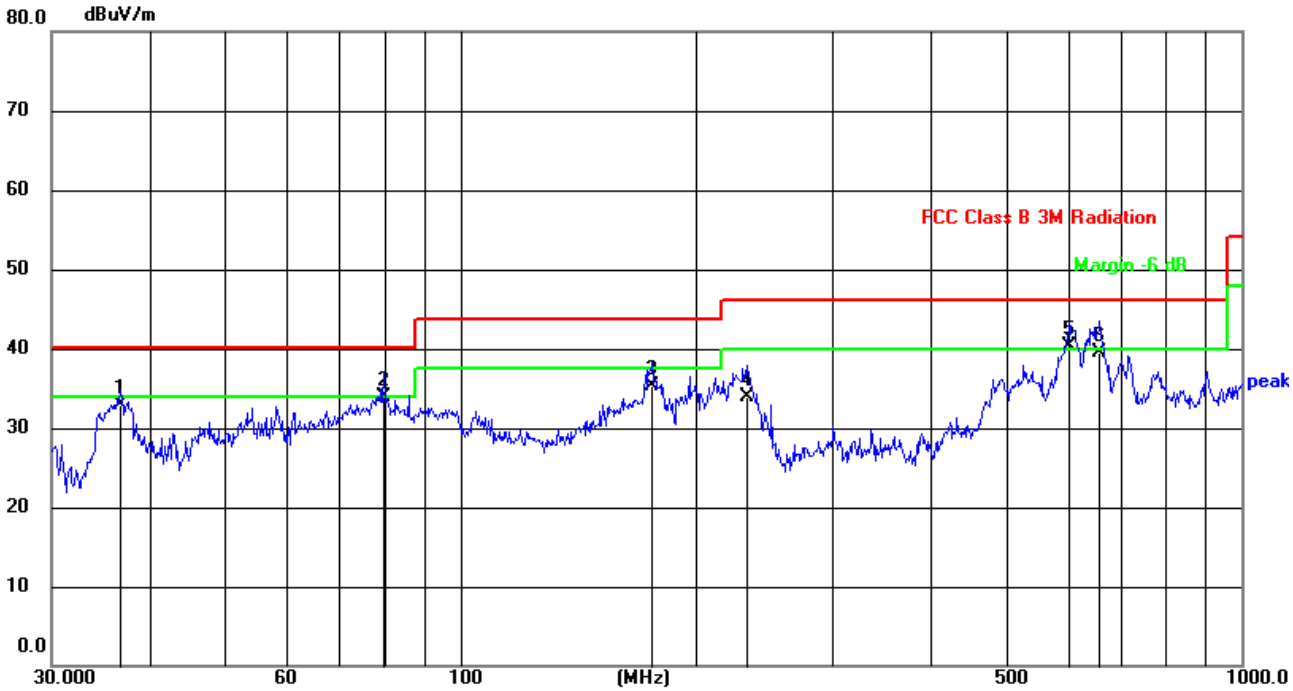
Measurement Data:

9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

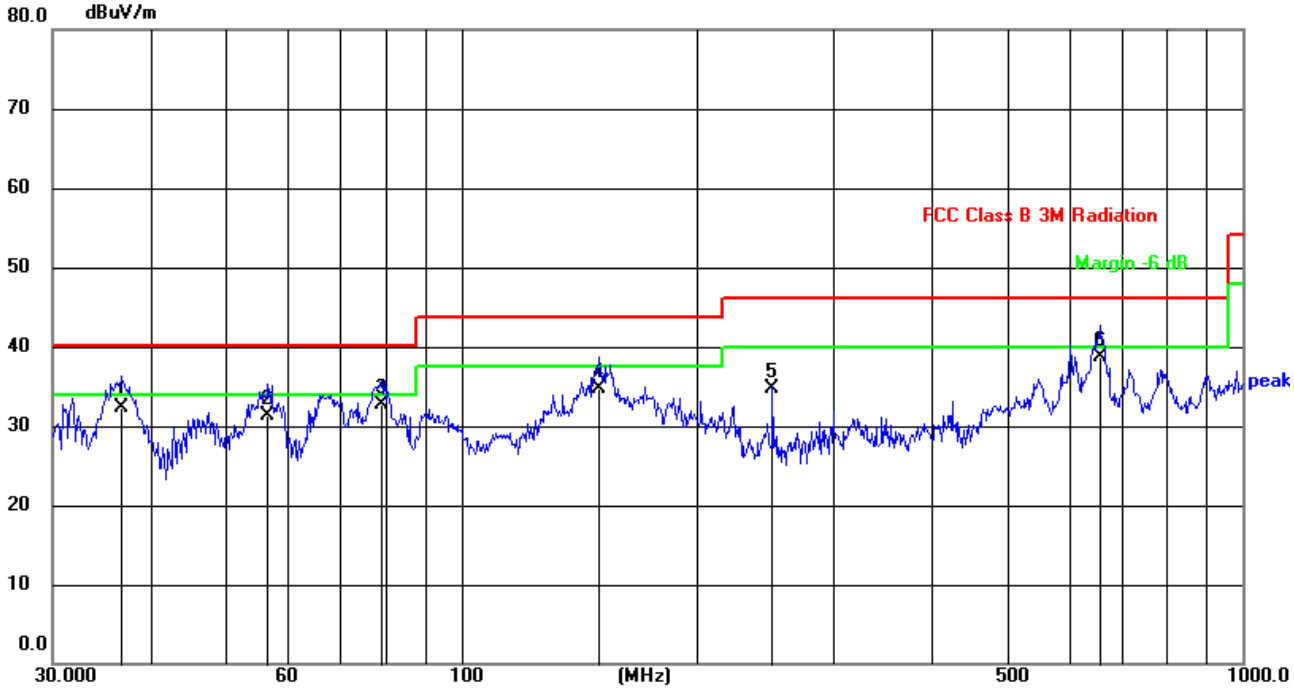
Below 1GHz

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.7661	53.98	-21.05	32.93	40.00	-7.07	QP
2	79.8002	54.28	-20.29	33.99	40.00	-6.01	QP
3	176.2684	53.68	-18.44	35.24	43.50	-8.26	QP
4	232.5318	52.11	-18.29	33.82	46.00	-12.18	QP
5	601.4265	51.45	-11.15	40.30	46.00	-5.70	QP
6	658.8360	49.19	-9.76	39.43	46.00	-6.57	QP

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.7661	53.40	-21.05	32.35	40.00	-7.65	QP
2	56.5929	52.08	-20.81	31.27	40.00	-8.73	QP
3	79.2425	53.04	-20.30	32.74	40.00	-7.26	QP
4	150.0107	53.67	-18.95	34.72	43.50	-8.78	QP
5	250.3009	52.81	-18.20	34.61	46.00	-11.39	QP
6	656.5300	48.53	-9.80	38.73	46.00	-7.27	QP

Above 1GHz:

Test mode:		802.11a		Test channel:		lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11490.00	25.25	21.64	46.89	54(Note3)	-7.11	PK
V	17235.00	23.47	21.80	45.27	54(Note3)	-8.73	PK
H	11490.00	23.15	21.83	44.98	54(Note3)	-9.02	PK
H	17235.00	19.37	21.67	41.04	54(Note3)	-12.96	PK

Test mode:		802.11a		Test channel:		Middle	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11570.00	25.32	21.64	46.96	54(Note3)	-7.04	PK
V	17355.00	23.54	21.80	45.34	54(Note3)	-8.66	PK
H	11570.00	26.32	21.83	48.15	54(Note3)	-5.85	PK
H	17355.00	25.49	21.67	47.16	54(Note3)	-6.84	PK

Test mode:		802.11a		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11650.00	24.15	21.64	45.79	54(Note3)	-8.21	PK
V	17475.00	22.68	21.80	44.48	54(Note3)	-9.52	PK
H	11650.00	20.89	21.83	42.72	54(Note3)	-11.28	PK
H	17475.00	20.47	21.67	42.14	54(Note3)	-11.86	PK

Test mode:		802.11n(HT20)		Test channel:		lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11490.00	24.58	21.64	46.22	54(Note3)	-7.78	PK
V	17235.00	22.32	21.80	44.12	54(Note3)	-9.88	PK
H	11490.00	20.83	21.83	42.66	54(Note3)	-11.34	PK
H	17235.00	19.26	21.67	40.93	54(Note3)	-13.07	PK

Test mode:		802.11n(HT20)		Test channel:		Middle	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11570.00	25.49	21.64	47.13	54(Note3)	-6.87	PK
V	17355.00	24.76	21.80	46.56	54(Note3)	-7.44	PK
H	11570.00	22.39	21.83	44.22	54(Note3)	-9.78	PK
H	17355.00	21.54	21.67	43.21	54(Note3)	-10.79	PK

Test mode:		802.11n(HT20)		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11650.00	26.39	21.64	48.03	54(Note3)	-5.97	PK
V	17475.00	22.47	21.80	44.27	54(Note3)	-9.73	PK
H	11650.00	21.42	21.83	43.25	54(Note3)	-10.75	PK
H	17475.00	19.38	21.67	41.05	54(Note3)	-12.95	PK

Test mode:		802.11n(HT40)		Test channel:		Lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11510.00	22.49	21.67	44.16	54(Note3)	-9.84	PK
V	17265.00	22.38	21.83	44.21	54(Note3)	-9.79	PK
H	11510.00	21.09	21.67	42.76	54(Note3)	-11.24	PK
H	17265.00	22.16	21.83	43.99	54(Note3)	-10.01	PK

Test mode:		802.11n(HT40)		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11590.00	25.38	21.67	47.05	54(Note3)	-6.95	PK
V	17385.00	24.43	21.83	46.26	54(Note3)	-7.74	PK
H	11590.00	26.11	21.67	47.78	54(Note3)	-6.22	PK
H	17385.00	22.65	21.83	44.48	54(Note3)	-9.52	PK

Test mode:		802.11ac(HT20)		Test channel:		lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11490.00	24.78	21.64	46.42	54(Note3)	-7.58	PK
V	17235.00	24.09	21.80	45.89	54(Note3)	-8.11	PK
H	11490.00	22.38	21.83	44.21	54(Note3)	-9.79	PK
H	17235.00	21.11	21.67	42.78	54(Note3)	-11.22	PK

Test mode:		802.11ac(HT20)		Test channel:		Middle	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11570.00	22.45	21.64	44.09	54(Note3)	-9.91	PK
V	17355.00	21.37	21.80	43.17	54(Note3)	-10.83	PK
H	11570.00	25.14	21.83	46.97	54(Note3)	-7.03	PK
H	17355.00	23.91	21.67	45.58	54(Note3)	-8.42	PK

Test mode:		802.11ac(HT20)		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11650.00	24.39	21.64	46.03	54(Note3)	-7.97	PK
V	17475.00	22.83	21.80	44.63	54(Note3)	-9.37	PK
H	11650.00	22.14	21.83	43.97	54(Note3)	-10.03	PK
H	17475.00	20.32	21.67	41.99	54(Note3)	-12.01	PK

Test mode:		802.11ac(HT40)		Test channel:		Lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11510.00	23.87	21.67	45.54	54(Note3)	-8.46	PK
V	17265.00	21.09	21.83	42.92	54(Note3)	-11.08	PK
H	11510.00	24.37	21.67	46.04	54(Note3)	-7.96	PK
H	17265.00	20.54	21.83	42.37	54(Note3)	-11.63	PK

Test mode:		802.11ac(HT40)		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11590.00	23.14	21.67	44.81	54(Note3)	-9.19	PK
V	17385.00	22.42	21.83	44.25	54(Note3)	-9.75	PK
H	11590.00	23.59	21.67	45.26	54(Note3)	-8.74	PK
H	17385.00	20.16	21.83	41.99	54(Note3)	-12.01	PK

Test mode:		802.11ac(HT80)		Test channel:		42	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11550.00	21.09	21.64	42.73	54(Note3)	-11.27	PK
V	17325.00	19.32	21.80	41.12	54(Note3)	-12.88	PK
H	11550.00	21.47	21.64	43.11	54(Note3)	-10.89	PK
H	17325.00	19.36	21.80	41.16	54(Note3)	-12.84	PK

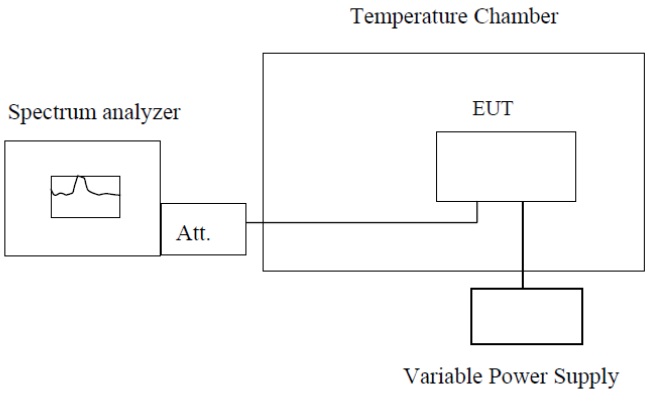
Notes:

1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then peak measurement needn't be performed.

7.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures 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
Test Procedure:	The EUT was setup to ANSI C63.4, 2003; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement data:

HT 20MHz					
Frequency stability versus Temp.					
Power Supply: AC 120V					
Temp. (°C)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
-30	5745	5746.1289	5744.8763	5744.6729	5746.0187
	5785	5786.026	5784.0198	5784.9825	5786.1482
	5825	5825.3691	5824.7832	5824.6912	5826.8721
-20	5745	5745.2621	5744.4318	5744.8726	5746.1981
	5785	5785.1847	5784.1916	5784.1903	5785.8179
	5825	5825.3278	5824.2169	5824.408	5825.2670
-10	5745	5745.1483	5744.0537	5744.2791	5745.1093
	5785	5785.9016	5784.4438	5784.6792	5785.3906
	5825	5825.2691	5824.3739	5824.2608	5825.3701
0	5745	5745.8921	5744.3602	5744.7892	5745.3195
	5785	5785.4702	5784.4378	5784.2681	5785.2792
	5825	5825.1582	5824.2561	5824.4582	5825.2581
10	5745	5745.3782	5744.1253	5744.3214	5745.2541
	5785	5785.3609	5784.3126	5784.1762	5785.3402
	5825	5825.3309	5824.1357	5824.5782	5825.4824
20	5745	5745.1266	5744.4328	5744.8749	5745.8739
	5785	5785.4163	5784.0945	5784.0037	5785.6728
	5825	5825.1289	5824.9422	5824.5826	5825.8725
30	5745	5745.4367	5744.0925	5744.4461	5745.3569
	5785	5785.3269	5784.3562	5784.4702	5785.4437
	5825	5825.3078	5824.3452	5824.3250	5825.4266
40	5745	5745.2545	5744.5244	5744.1235	5745.7532
	5785	5785.2358	5784.5356	5784.1256	5785.7363
	5825	5825.1355	5824.9645	5824.2324	5825.4634
50	5745	5745.3557	5744.5433	5744.8565	5745.3245
	5785	5785.2346	5784.3434	5784.6355	5785.8563
	5825	5825.1343	5824.6453	5824.2445	5825.6549

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VAC)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
108	5745	5745.3352	5746.3435	5743.4232	5743.3434
	5785	5785.5672	5785.2446	5784.4467	5783.1577
	5825	5825.2324	5825.6763	5824.2455	5824.4547
120	5745	5745.3435	5745.7535	5744.4454	5744.7564
	5785	5785.2244	5785.9765	5784.3445	5784.8667
	5825	5825.3456	5825.2244	5824.0094	5824.3345
132	5745	5745.24447	5745.5552	5744.7892	5744.1357
	5785	5785.6402	5785.3468	5784.3245	5784.5657
	5825	5825.2467	5825.6323	5824.9563	5824.3464

HT40 MHz					
Frequency stability versus Temp.					
Power Supply: AC 120V					
Temp. (°C)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
-30	5755	5755.4643	5753.4433	5754.8543	5755.4553
	5795	5795.2445	5793.0563	5794.4454	5795.8936
-20	5755	5755.7564	5753.1267	5754.5453	5755.7634
	5795	5795.0864	5793.9675	5794.3535	5795.7453
-10	5755	5755.3445	5753.5565	5754.0667	5755.2456
	5795	5795.5533	5793.7534	5794.4578	5795.5845
0	5755	5755.8573	5754.4683	5754.4653	5755.7573
	5795	5795.6643	5794.3578	5794.4464	5795.0564
10	5755	5755.3246	5754.4674	5754.6743	5755.6344
	5795	5795.8563	5794.8454	5794.5454	5795.8644
20	5755	5755.5634	5754.8563	5754.4674	5755.7668
	5795	5795.2445	5794.5463	5794.2454	5795.3462
30	5755	5755.2453	5754.3524	5754.5834	5755.3637
	5795	5795.6756	5794.1330	5794.9623	5795.3446
40	5755	5755.4457	5754.9644	5754.2357	5755.8453
	5795	5795.7656	5794.1417	5794.6332	5795.4213
50	5755	5755.0274	5754.7009	5754.8168	5755.6747
	5795	5795.3246	5794.9656	5794.2465	5795.4653

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VAC)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
108	5755	5755.6573	5754.3445	5755.2424	5754.9673
	5795	5795.4433	5794.9674	5795.7533	5794.3524
120	5755	5755.1468	5754.8424	5755.0856	5754.1214
	5795	5795.0845	5794.6655	5795.3552	5794.0564
132	5755	5755.2356	5754.8563	5755.7734	5754.7675
	5795	5795.6355	5794.53433	5795.9553	5794.9674

HT80 MHz					
Frequency stability versus Temp.					
Power Supply: AC 120V					
Temp. (°C)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
-30	5775	5775.7244	5773.3643	5774.9674	5775.2325
-20	5775	5775.2466	5773.5474	5774.1355	5775.8563
-10	5775	5775.3565	5773.6743	5774.0768	5775.2354
0	5775	5775.4674	5774.7864	5774.2435	5775.9674
10	5775	5775.3456	5774.5634	5774.7853	5775.5643
20	5775	5775.4657	5774.5756	5774.7887	5775.4353
30	5775	5775.5644	5774.9766	5774.2324	5775.8867
40	5775	5775.5634	5774.9565	5774.2245	5775.7856
50	5775	5775.1344	5774.8756	5774.3245	5775.5756

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VAC)	Operating Frequency (MHz)	0 minute	2 minute	5 minute	10 minute
		Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)	Measured Frequency (MHz)
108	5775	5775.8545	5774.3435	5775.3456	5774.3434
120	5775	5775.7624	5774.3464	5775.0878	5774.2343
132	5775	5775.8564	5774.8665	5775.3445	5774.6475

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

------END------