

# TEST REPORT

**Reference No.** ..... : WTS17S0888240-5E V1  
**FCC ID**..... : 2AC88-G1701  
**Applicant**..... : HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED  
**Address** ..... : Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, HongKong  
**Manufacturer** ..... : Shenzhen uCloudlink Network Technology, Co., Ltd  
**Address** ..... : 3rd Floor, A Part of Building 1, Shenzhen Software Industry Base, nanshan district xuefu Road Post Code 518057, Shenzhen City, Guangdong Province, P.R.China  
**Product**..... : Smart Phone  
**Model(s)**..... : G1701  
**Brand Name** ..... : GlocalMe  
**Standards**..... : FCC CFR47 Part 15 C Section 15.407: 2016  
**Date of Receipt sample**..... : 2017-08-23  
**Date of Test**..... : 2017-08-24 to 2017-11-30  
**Date of Issue** ..... : 2018-01-12  
**Test Result** ..... : **Pass**

## Remarks:

The 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.

## Prepared By:

**Waltek Services (Shenzhen) Co., Ltd.**

**Address: 1/F., Fukangtai Building, West Baima Road, Songgang Street, Baoan District, Shenzhen, Guangdong, China**

**Tel :+86-755-83551033**

**Fax:+86-755-83552400**

Compiled by:

*Ford Wang*

Ford Wang / Project Engineer

Approved by:



*Philo Zhong*

Philo Zhong / Manager

## 2 Laboratories Introduction

**Waltek Services Test Group Ltd.** is one of the largest and the most comprehensive third party testing organizations in China, our headquarter located in Shenzhen (CNAS Registration No. L3110, A2LA Certificate Number: 4243.01) and have branches in Foshan (CNAS Registration No. L6478), Dongguan (CNAS Registration No. L9950), Zhongshan, Suzhou (CNAS Registration No. L7754), Ningbo and Hong Kong, Our test capability covered four large fields: safety test. Electronic Magnetic Compatibility(EMC), reliability and energy performance, Chemical test. Meanwhile, Waltek has got recognition as registration and accreditation laboratory from EMSD (Electrical and Mechanical Services Department), and American Energy star, FCC(The Federal Communications Commission), CPSC(Consumer Product Safety Commission), CEC(California energy efficiency), IC(Industry Canada) and ELI(Efficient Lighting Initiative). It's the strategic partner and data recognition laboratory of international authoritative organizations, such as UL, Intertek(ETL-SEMKO), CSA, TÜV Rheinland, TÜV SÜD, etc. As a professional, comprehensive, justice international test organization, we still keep the scientific and rigorous work attitude to help each client satisfy the international standards and assist their product enter into globe market smoothly.

### Waltek Services (Shenzhen) Co., Ltd.

#### A. Accreditations for Conformity Assessment (International)

Country/Region	Accreditation Body	Scope	Note
USA	<b>CNAS</b> <b>(Registration No.: L3110)</b> <b>A2LA</b> <b>(Certificate No.: 4243.01)</b>	FCC ID \ DOC \ VOC	1
Canada		IC ID \ VOC	2
Japan		MIC-T \ MIC-R	-
Europe		EMCD \ RED	-
Taiwan		NCC	-
Hong Kong		OFCA	-
Australia		RCM	-
India		<b>International Services</b>	WPC
Thailand	NTC		-
Singapore	IDA		-
Note:			
1. FCC Designation No.: CN1201. Test Firm Registration No.: 523476.			
2. IC Canada Registration No.: 7760A			

#### B. TCBs and Notify Bodies Recognized Testing Laboratory.

Recognized Testing Laboratory of ...	Notify body number
--------------------------------------	--------------------

TUV Rheinland	Optional.
Intertek	
TUV SUD	
SGS	
Phoenix Testlab GmbH	0700
Element Materials Technology Warwick Ltd	0891
Timco Engineering, Inc.	1177
Eurofins Product Service GmbH	0681

### 3 Contents

	Page
<b>1 COVER PAGE.....</b>	<b>1</b>
<b>2 LABORATORIES INTRODUCTION.....</b>	<b>2</b>
<b>3 CONTENTS .....</b>	<b>4</b>
<b>4 REVISION HISTORY .....</b>	<b>5</b>
<b>5 GENERAL INFORMATION.....</b>	<b>6</b>
5.1 GENERAL DESCRIPTION OF E.U.T. ....	6
5.2 DETAILS OF E.U.T. ....	6
5.3 CHANNEL LIST .....	9
<b>6 TEST SUMMARY .....</b>	<b>10</b>
<b>7 EQUIPMENT USED DURING TEST .....</b>	<b>11</b>
7.1 EQUIPMENTS LIST .....	11
7.2 DESCRIPTION OF SUPPORT UNITS .....	12
7.3 MEASUREMENT UNCERTAINTY .....	12
7.4 TEST EQUIPMENT CALIBRATION .....	12
<b>8 CONDUCTED EMISSION .....</b>	<b>13</b>
8.1 E.U.T. OPERATION .....	13
8.2 EUT SETUP.....	13
8.3 MEASUREMENT DESCRIPTION .....	13
8.4 CONDUCTED EMISSION TEST RESULT .....	14
<b>9 RADIATED EMISSIONS.....</b>	<b>16</b>
9.1 EUT OPERATION.....	16
9.2 TEST SETUP .....	17
9.3 SPECTRUM ANALYZER SETUP .....	18
9.4 TEST PROCEDURE .....	19
9.5 SUMMARY OF TEST RESULTS .....	20
<b>10 DUTY CYCLE.....</b>	<b>27</b>
10.1 SUMMARY OF TEST RESULTS .....	27
<b>11 BAND EDGE .....</b>	<b>30</b>
11.1 TEST PRODUCE .....	30
11.2 TEST RESULT .....	31
<b>12 26 DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH .....</b>	<b>35</b>
12.1 TEST PROCEDURE:.....	35
12.2 TEST RESULT: .....	35
<b>13 CONDUCTED OUTPUT POWER .....</b>	<b>42</b>
13.1 TEST PROCEDURE:.....	42
13.2 TEST RESULT: .....	42
<b>14 POWER SPECTRAL DENSITY .....</b>	<b>49</b>
14.1 TEST PROCEDURE:.....	49
14.2 TEST RESULT: .....	49
<b>15 ANTENNA REQUIREMENT .....</b>	<b>56</b>
<b>16 RF EXPOSURE.....</b>	<b>57</b>
<b>17 PHOTOGRAPHS OF TEST SETUP AND EUT.....</b>	<b>58</b>

## 4 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTS17S08882 40-5E	2017-08-23	2017-08-24 to 2017-11-30	2017-12-12	original	-	Replaced
WTS17S08882 40-5E V1	2017-08-23	2017-08-24 to 2017-11-30	2018-01-12	Version 1	Updated	Valid

## 5 General Information

### 5.1 General Description of E.U.T.

Product:	Smart Phone
Model(s):	G1701
Model Description:	N/A
GSM Band(s):	GSM 850/900/1800/1900MHz
GPRS/EGPRS Class:	12
WCDMA Band(s):	FDD Band I/II/IV/V
LTE Band(s):	FDD Band 2/4/5/7/12/13/25/26 TDD Band 41
Wi-Fi Specification:	2.4G-802.11b/g/n HT20 5G-802.11a/n HT20
Bluetooth Version:	Bluetooth v4.0 with BLE
GPS:	Support
NFC:	Support
Hardware Version:	G1701_VER_B
Software Version:	S1_C00_TSV1.0.001.008.171030 user dev-keys
Highest frequency (Exclude Radio):	1.25GHz
Storage Location:	Internal Storage
Note:	N/A

### 5.2 Details of E.U.T.

Operation Frequency:	GSM/GPRS/EDGE 850: 824~849MHz PCS/GPRS/EDGE 1900: 1850~1910MHz WCDMA Band II: 1850~1910MHz WCDMA Band V: 824~849MHz WCDMA Band IV: 1710~1755MHz LTE Band 2: 1850~1910MHz LTE Band 4: 1710~1755MHz LTE Band 5: 824~849MHz LTE Band 7: 2500~2570MHz LTE Band 12: 699~716MHz LTE Band 13: 777~787MHz LTE Band 17: 704~716MHz LTE Band 25: 1850~1915MHz LTE Band 26: 814~849MHz LTE Band 41: 2496~2690MHz WiFi: 802.11b/g/n HT20: 2412~2462MHz 802.11a/ n(HT20): 5150MHz~5250MHz 5725MHz~5850MHz
----------------------	--

	Bluetooth: 2402~2480MHz NFC:13.56MHz
Max. RF output power:	GSM 850: 32.82dBm PCS1900: 29.98dBm WCDMA Band II: 22.81dBm WCDMA Band V: 22.70dBm WCDMA Band IV: 22.81dBm LTE Band 2: 23.90dBm LTE Band 4: 22.89dBm LTE Band 5: 22.95dBm LTE Band 7: 21.97dBm LTE Band 12: 23.88dBm LTE Band 13: 23.73dBm LTE Band 17: 22.93dBm LTE Band 25: 22.95dBm LTE Band 26: 22.98dBm LTE Band 41: 22.95dBm WiFi(2.4G): 9.49dBm WiFi(5G) Band I: 9.52dBm WiFi(5G)Band IV: 7.44dBm Bluetooth: 2.13dBm
Type of Modulation:	GSM,GPRS: GMSK EDGE: GMSK, 8PSK WCDMA: BPSK, 16QAM LTE: QPSK, 16QAM WiFi: CCK, OFDM Bluetooth: GFSK, Pi/4 DQPSK, 8DPSK NFC: ASK, 2ASK
Antenna installation:	GSM/WCDMA/LTE: internal permanent antenna WiFi/Bluetooth: internal permanent antenna NFC: Loop antenna
Antenna Gain:	GSM 850: -1.56dBi PCS1900: 1.79dBi WCDMA Band II: 1.79dBi WCDMA Band V: -1.56dBi WCDMA Band IV: -0.12dBi LTE Band 2: 1.79dBi LTE Band 4: -0.12dBi LTE Band 5: -1.56dBi LTE Band 7: 3.01dBi LTE Band 12: -2.76dBi LTE Band 13: -1.28dBi LTE Band 17: -2.76dBi LTE Band 25: 1.79dBi LTE Band 26 -1.56dBi LTE Band 41 3.62dBi WiFi(2.4G): 2.47dBi

	WiFi(5G): 2.47dBi
	Bluetooth: 2.47dBi
Ratings:	Battery DC 3.85V, 2900mAh
	DC 5V, 2.0A; 9V, 2.0A; 12V, 1.5A charging from adapter 1
	(Adapter Input: 100-240V~50/60Hz 0.6A)
	DC 5V, 2.0A charging from adapter 2
	(Adapter Input: 100-240V~50/60Hz MAX 0.3A)
Adapter1:	Manufacture: ShenZhen HuaJin Electronics CO.,LTD
	Model No.: HJ-FC010K7-US
Adapter2:	Manufacture: SHENZHEN HONOR ELECTRONIC CO.,LTD
	Model No.: ADS-12DA-05 05010E



### 5.3 Channel List

Band I (5.15-5.25GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	38	5190
40	5200	42	5210
44	5220	46	5230
48	5240		
Band IV (5.725-5.85GHz)			
channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	151	5755
153	5765	155	5785
157	5785	159	5795
161	5805	165	5825

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:

For 802.11a/n(HT20):

BANDI:

channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	40	5200
48	5240		

BANDIV

channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	155	5785
165	5825		

## 6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207(a)	PASS
Radiated Emissions	15.407(a) 15.205(a) 15.209(a)	PASS
Duty Cycle	KDB 789033	PASS
6dB Bandwidth	15.407(a)	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	PASS
Maximum Conducted Output Power	15.407(a)	PASS
Power Spectral Density	15.407(a)	PASS
Restricted bands around fundamental frequency	15.407(a)	PASS
Antenna Requirement	15.203	PASS
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS

## 7 Equipment Used during Test

### 7.1 Equipments List

Conducted Emissions Test Site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	100947	2017-09-12	2018-09-11
2.	LISN	R&S	ENV216	101215	2017-09-12	2018-09-11
3.	Cable	Top	TYPE16(3.5M)	-	2017-09-12	2018-09-11
Conducted Emissions Test Site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	2017-09-12	2018-09-11
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	2017-09-12	2018-09-11
3.	Limiter	York	MTS-IMP-136	261115-001-0024	2017-09-12	2018-09-11
4.	Cable	LARGE	RF300	-	2017-09-12	2018-09-11
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP	100091	2017-04-29	2018-04-28
2	Active Loop Antenna	Beijing Dazhi	ZN30900A	-	2017-04-09	2018-04-08
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	2017-04-09	2018-04-08
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	2017-09-12	2018-09-11
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	2017-04-09	2018-04-08
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2017-04-09	2018-04-08
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	2017-04-13	2018-04-12
8	Coaxial Cable (above 1GHz)	Top	1GHz-25GHz	EW02014-7	2017-04-13	2018-04-12
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	Equipment	Manufacturer	Model No.	Serial No	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	2017-04-13	2018-04-12
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2017-04-09	2018-04-08
3	Amplifier	Compliance pirection systems inc	PAP-0203	22024	2017-04-13	2018-04-12
4	Cable	HUBER+SUHNER	CBL2	525178	2017-04-13	2018-04-12

RF Conducted Testing						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMC Analyzer (9k~26.5GHz)	Agilent	E7405A	MY45114943	2017-09-12	2018-09-11
2.	Spectrum Analyzer (9k-6GHz)	R&S	FSL6	100959	2017-09-12	2018-09-11
3.	Signal Analyzer (9k~26.5GHz)	Agilent	N9010A	MY50520207	2017-09-12	2018-09-11

## 7.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

## 7.3 Measurement Uncertainty

Parameter	Uncertainty
Conducted Emission	± 3.64 dB(AC mains 150KHz~30MHz)
Radiated Spurious Emissions	± 5.08 dB (Bilog antenna 30M~1000MHz)
	± 5.47 dB (Horn antenna 1000M~25000MHz)
Radio Frequency	± 1 x 10 <sup>-7</sup> Hz
RF Power	± 0.42 dB
RF Power Density	± 0.7dB
Conducted Spurious Emissions	± 2.76 dB (9kHz~26500MHz)
Confidence interval: 95%. Confidence factor:k=2	

## 7.4 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

## 8 Conducted Emission

Test Requirement: FCC CFR 47 Part 15 Section 15.207

Test Method: ANSI C63.10:2013

Test Result: PASS

Frequency Range: 150kHz to 30MHz

Class/Severity: Class B

Limit:

Frequency (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

### 8.1 E.U.T. Operation

Operating Environment :

Temperature: 21.5 °C

Humidity: 51.9 % RH

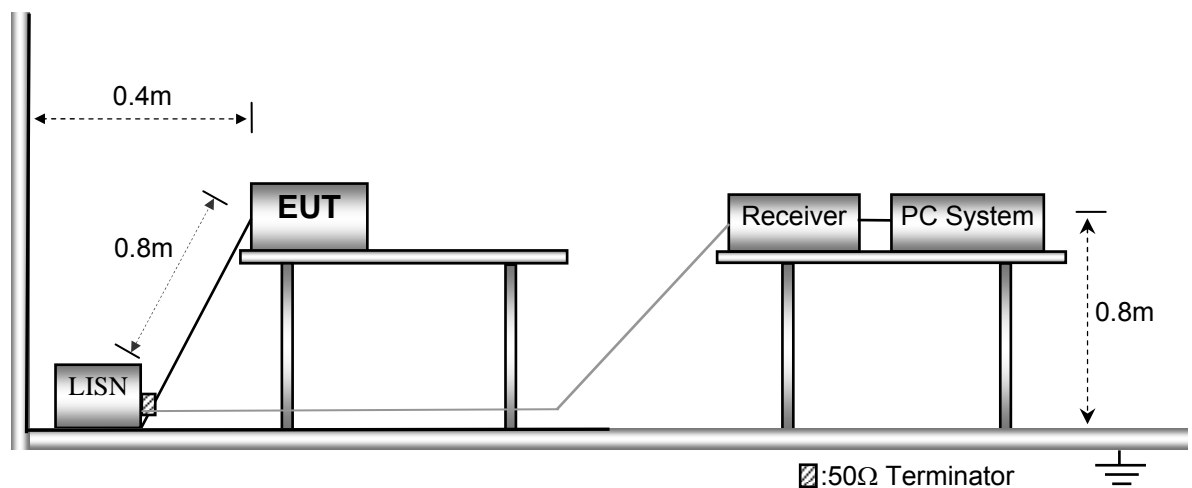
Atmospheric Pressure: 101.2kPa

EUT Operation :

The test was performed in TX transmitting mode, the test data were shown in the report.

### 8.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.4.



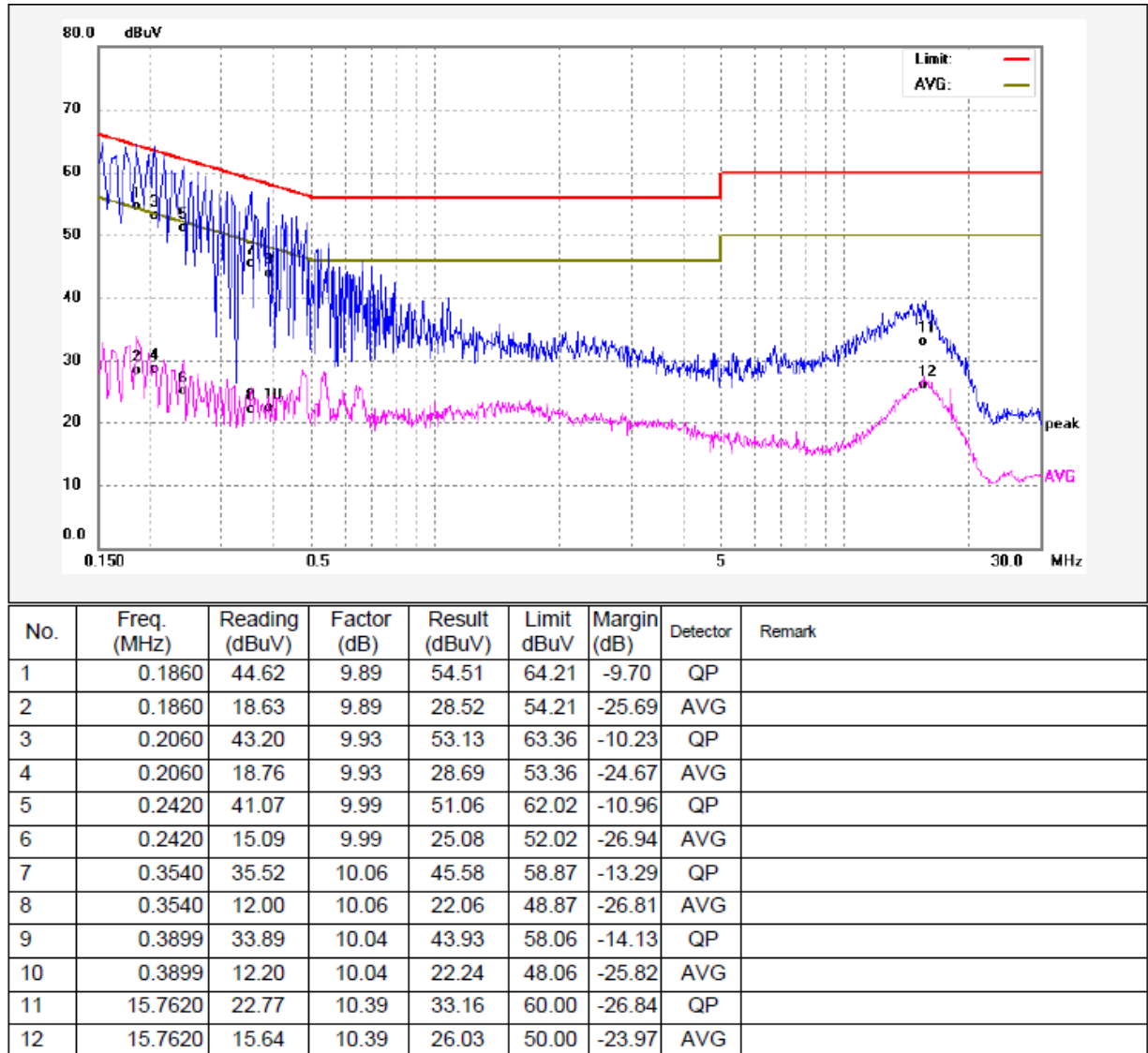
### 8.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

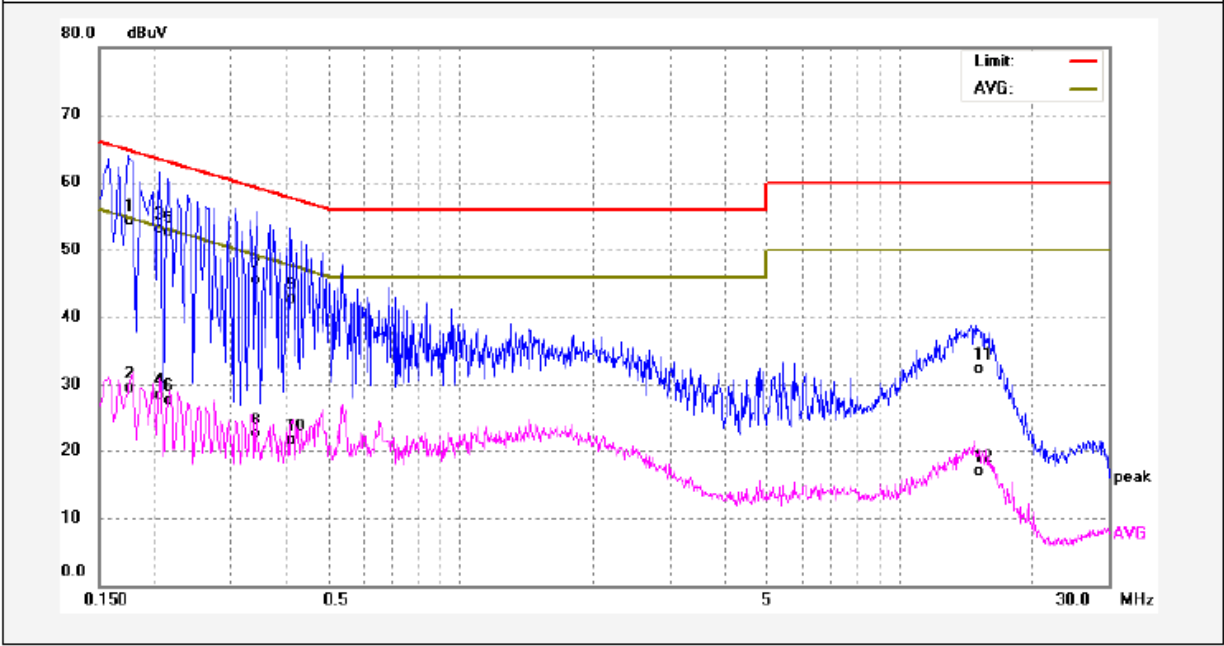
## 8.4 Conducted Emission Test Result

An initial pre-scan was performed on the live and neutral lines. only the worst data (802.11n20 mode middle channel) were reported.

Live line:



Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1740	44.35	9.87	54.22	64.76	-10.54	QP	
2	0.1740	19.60	9.87	29.47	54.76	-25.29	AVG	
3	0.2060	43.12	9.93	53.05	63.36	-10.31	QP	
4	0.2060	18.53	9.93	28.46	53.36	-24.90	AVG	
5	0.2140	42.57	9.94	52.51	63.04	-10.53	QP	
6	0.2140	17.72	9.94	27.66	53.04	-25.38	AVG	
7	0.3420	35.51	10.05	45.56	59.15	-13.59	QP	
8	0.3420	12.54	10.05	22.59	49.15	-26.56	AVG	
9	0.4100	32.60	10.03	42.63	57.65	-15.02	QP	
10	0.4100	11.49	10.03	21.52	47.65	-26.13	AVG	
11	15.0500	21.96	10.38	32.34	60.00	-27.66	QP	
12	15.0500	6.46	10.38	16.84	50.00	-33.16	AVG	

## 9 Radiated Emissions

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.407

Test Method: ANSI C63.10:2013

Test Result: PASS

Measurement Distance: 3m

Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

### 9.1 EUT Operation

Operating Environment :

Temperature: 23.5 °C

Humidity: 52.1 % RH

Atmospheric Pressure: 101.2kPa

EUT Operation :

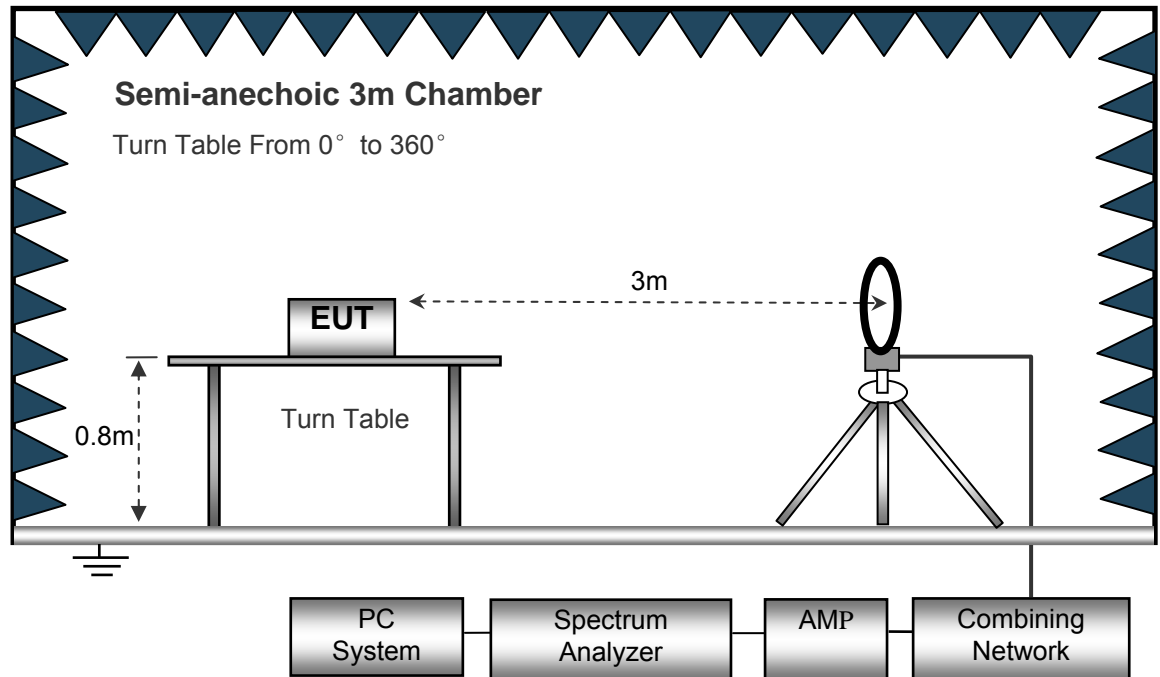
The test was performed in transmitting mode, the test data were shown in the report.



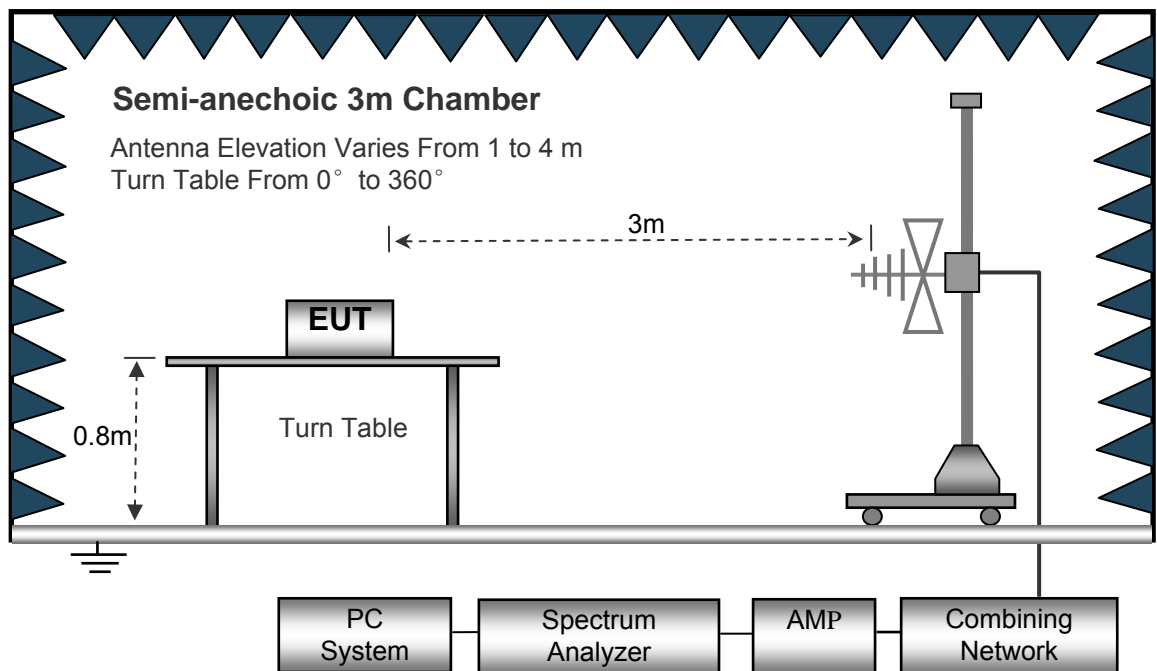
## 9.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.

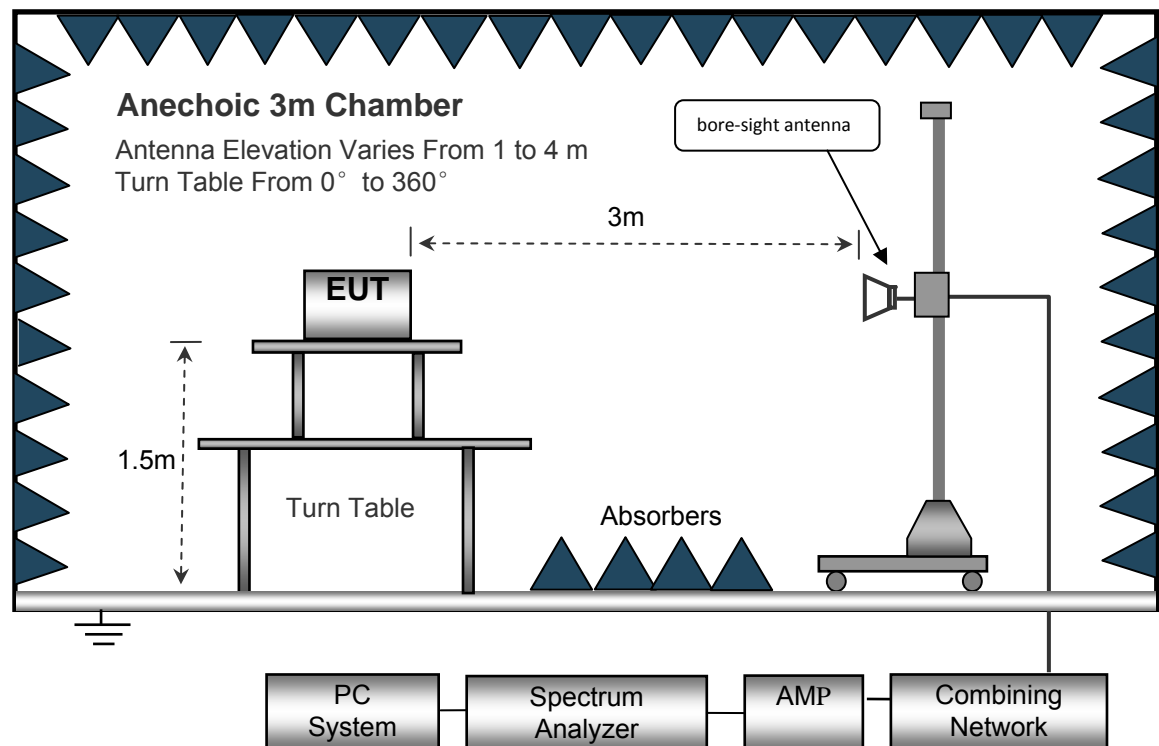
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



9.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed ..... Auto  
IF Bandwidth.....10kHz  
Video Bandwidth.....10kHz  
Resolution Bandwidth..... 10kHz

30MHz ~ 1GHz

Sweep Speed ..... Auto  
Detector .....PK  
Resolution Bandwidth..... 100kHz  
Video Bandwidth.....300kHz

Above 1GHz

Sweep Speed ..... Auto  
Detector .....PK  
Resolution Bandwidth..... 1MHz  
Video Bandwidth.....3MHz  
Detector .....Ave.  
Resolution Bandwidth..... 1MHz  
Video Bandwidth..... 10Hz

## 9.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in Z axis,so the worst data were shown as follow.
8. A 2.4GHz high –pass filter is used during radiated emissions above 1GHz measurement.

## Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Limit}$$

## 9.5 Summary of Test Results

**Test Frequency: 9KHz~30MHz**

Remark: Only the worst case data (802.11a/n HT20 low channel mode) were recorded.

Frequency	Measurement results dB $\mu$ V @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dB $\mu$ V/m @30m	Limits dB $\mu$ V/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
802.11a(HT20)							
6.021	25.02	QP	21.84	40.00	6.86	29.54	-22.68
8.304	26.14	QP	21.02	40.00	7.16	29.54	-22.38
26.127	24.09	QP	20.55	40.00	4.64	29.54	-24.90
802.11n(HT20)							
6.021	24.96	QP	21.84	40.00	6.80	29.54	-22.74
8.304	26.51	QP	21.02	40.00	7.53	29.54	-22.01
26.127	25.33	QP	20.55	40.00	5.88	29.54	-23.66

**Test Frequency : 30MHz ~ 18GHz**

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band I low Channel 5180MHz									
223.50	40.54	QP	55	1.4	H	-11.62	28.92	46.00	-17.08
223.50	35.69	QP	275	1.5	V	-11.62	24.07	46.00	-21.93
4534.99	50.33	PK	169	1.1	H	-2.03	48.30	74.00	-25.70
4534.99	47.08	Ave	169	1.1	H	-2.03	45.05	54.00	-8.95
5147.63	50.78	PK	318	1.8	H	-1.02	49.76	74.00	-24.24
5147.63	47.05	Ave	318	1.8	H	-1.02	46.03	54.00	-7.97
10360.00	41.13	PK	126	1.6	H	5.33	46.46	74.00	-27.54
10360.00	36.66	Ave	126	1.6	H	5.33	41.99	54.00	-12.01
5362.28	43.00	PK	334	1.5	H	-1.21	41.79	74.00	-32.21
5362.28	38.50	Ave	334	1.5	H	-1.21	37.29	54.00	-16.71

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band I middle channel 5200MHz									
223.50	39.34	QP	341	1.3	H	-11.62	27.72	46.00	-18.28
223.50	36.84	QP	142	1.3	V	-11.62	25.22	46.00	-20.78
4518.39	49.37	PK	360	1.6	H	-1.94	47.43	74.00	-26.57
4518.39	48.53	Ave	360	1.6	H	-1.94	46.59	54.00	-7.41
5123.05	49.84	PK	223	1.9	H	-1.06	48.78	74.00	-25.22
5123.05	47.64	Ave	223	1.9	H	-1.06	46.58	54.00	-7.42
10400.00	40.66	PK	246	1.4	H	5.21	45.87	74.00	-28.13
10400.00	37.65	Ave	246	1.4	H	5.21	42.86	54.00	-11.14
5352.85	46.02	PK	101	1.5	H	-1.37	44.65	74.00	-29.35
5352.85	39.91	Ave	101	1.5	H	-1.37	38.54	54.00	-15.46

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band I High channel 5240MHz									
223.50	38.94	QP	339	1.5	H	-11.62	27.32	46.00	-18.68
223.50	37.01	QP	236	1.4	V	-11.62	25.39	46.00	-20.61
4500.41	50.20	PK	20	1.4	H	-2.24	47.96	74.00	-26.04
4500.41	48.19	Ave	20	1.4	H	-2.24	45.95	54.00	-8.05
5121.79	51.12	PK	177	1.0	H	-1.09	50.03	74.00	-23.97
5121.79	47.25	Ave	177	1.0	H	-1.09	46.16	54.00	-7.84
10480.00	42.34	PK	125	2.0	H	5.14	47.48	74.00	-26.52
10480.00	35.94	Ave	125	2.0	H	5.14	41.08	54.00	-12.92
5377.03	46.01	PK	66	1.1	H	-1.38	44.63	74.00	-29.37
5377.03	37.78	Ave	66	1.1	H	-1.38	36.40	54.00	-17.60

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band I low Channel 5180MHz									
223.50	38.11	QP	299	1.4	H	-11.62	26.49	46.00	-19.51
223.50	36.26	QP	47	1.4	V	-11.62	24.64	46.00	-21.36
4512.86	40.68	PK	345	1.1	H	-1.89	38.79	74.00	-35.21
4512.86	36.28	Ave	345	1.1	H	-1.89	34.39	54.00	-19.61
5146.96	47.95	PK	217	1.2	H	-1.06	46.89	74.00	-27.11
5146.96	41.30	Ave	217	1.2	H	-1.06	40.24	54.00	-13.76
10380.00	39.70	PK	321	1.5	H	5.26	44.96	74.00	-29.04
10380.00	34.00	Ave	321	1.5	H	5.26	39.26	54.00	-14.74
5377.48	46.64	PK	70	1.8	H	-1.03	45.61	74.00	-28.39
5377.48	37.10	Ave	70	1.8	H	-1.03	36.07	54.00	-17.93

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band I Middle Channel 5200MHz									
223.50	37.20	QP	79	2.0	H	-11.62	25.58	46.00	-20.42
223.50	36.80	QP	255	1.7	V	-11.62	25.18	46.00	-20.82
4506.95	40.40	PK	90	1.6	H	-1.94	38.46	74.00	-35.54
4506.95	35.55	Ave	90	1.6	H	-1.94	33.61	54.00	-20.39
5115.47	48.88	PK	108	1.8	H	-1.06	47.82	74.00	-26.18
5115.47	41.96	Ave	108	1.8	H	-1.06	40.90	54.00	-13.10
10460.00	41.52	PK	279	1.6	H	5.28	46.80	74.00	-27.20
10480.00	35.81	Ave	279	1.6	H	5.28	41.09	54.00	-12.91
5379.02	46.26	PK	179	1.3	H	-1.05	45.21	74.00	-28.79
5379.02	37.98	Ave	179	1.3	H	-1.05	36.93	54.00	-17.07

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band I high Channel 5240MHz									
223.45	43.18	QP	315	2.0	H	-11.62	31.56	46.00	-14.44
223.45	32.96	QP	196	1.3	V	-11.62	21.34	46.00	-24.66
4519.35	53.17	PK	90	1.0	H	-1.96	51.21	74.00	-22.79
4519.35	46.76	Ave	90	1.0	H	-1.96	44.80	54.00	-9.20
5141.26	50.93	PK	9	1.5	H	-1.06	49.87	74.00	-24.13
5141.26	38.58	Ave	9	1.5	H	-1.06	37.52	54.00	-16.48
10480.00	40.59	PK	204	1.2	H	5.14	45.73	74.00	-28.27
10480.00	36.88	Ave	204	1.2	H	5.14	42.02	54.00	-11.98
5384.79	45.89	PK	290	2.0	H	-1.10	44.79	74.00	-29.21
5384.79	37.92	Ave	290	2.0	H	-1.10	36.82	54.00	-17.18

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band IV low Channel 5745MHz									
223.45	41.91	QP	106	1.1	H	-11.62	30.29	46.00	-15.71
223.45	31.83	QP	271	1.2	V	-11.62	20.21	46.00	-25.79
4520.80	51.69	PK	304	1.2	H	-1.85	49.84	74.00	-24.16
4520.80	44.03	Ave	304	1.2	H	-1.85	42.18	54.00	-11.82
11490.00	38.94	PK	81	1.3	H	5.93	44.87	74.00	-29.13
11490.00	34.48	Ave	81	1.3	H	5.93	40.41	54.00	-13.59
5378.50	45.48	PK	137	2.0	H	-1.01	44.47	74.00	-29.53
5378.50	37.12	Ave	137	2.0	H	-1.01	36.11	54.00	-17.89
5440.80	46.12	PK	27	1.9	H	-1.36	44.76	74.00	-29.24
5440.80	37.14	Ave	27	1.9	H	-1.36	35.78	54.00	-18.22

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band IV middle channel 5785MHz									
223.45	41.92	QP	261	1.5	H	-11.62	30.30	46.00	-15.70
223.45	31.13	QP	119	1.0	V	-11.62	19.51	46.00	-26.49
4536.37	50.81	PK	219	1.2	H	-1.89	48.92	74.00	-25.08
4536.37	43.45	Ave	219	1.2	H	-1.89	41.56	54.00	-12.44
11570.00	41.58	PK	107	1.5	H	5.81	47.39	74.00	-26.61
11570.00	37.32	Ave	107	1.5	H	5.81	43.13	54.00	-10.87
5352.17	46.86	PK	26	1.2	H	-1.04	45.82	74.00	-28.18
5352.17	39.29	Ave	26	1.2	H	-1.04	38.25	54.00	-15.75
5446.29	46.79	PK	78	1.6	H	-1.36	45.43	74.00	-28.57
5446.29	37.32	Ave	78	1.6	H	-1.36	35.96	54.00	-18.04



Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a(HT20) band IV High channel 5825MHz									
223.45	41.10	QP	92	1.9	H	-11.62	29.48	46.00	-16.52
223.45	31.51	QP	231	1.2	V	-11.62	19.89	46.00	-26.11
4503.01	50.38	PK	14	2.0	H	-1.97	48.41	74.00	-25.59
4503.01	44.20	Ave	14	2.0	H	-1.97	42.23	54.00	-11.77
11650.00	40.46	PK	256	1.8	H	5.84	46.30	74.00	-27.70
11650.00	36.63	Ave	256	1.8	H	5.84	42.47	54.00	-11.53
5383.43	45.72	PK	230	1.0	H	-1.12	44.60	74.00	-29.40
5383.43	38.35	Ave	230	1.0	H	-1.12	37.23	54.00	-16.77
5452.03	45.91	PK	308	1.0	H	-1.36	44.55	74.00	-29.45
5452.03	38.59	Ave	308	1.0	H	-1.36	37.23	54.00	-16.77

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band IV low Channel 5745MHz									
223.45	41.28	QP	209	1.1	H	-11.62	29.66	46.00	-16.34
223.45	34.40	QP	269	1.4	V	-11.62	22.78	46.00	-23.22
4503.66	45.84	PK	352	1.3	H	-1.85	43.99	74.00	-30.01
4503.66	49.59	Ave	352	1.3	H	-1.85	47.74	54.00	-6.26
11490.00	38.36	PK	231	1.7	H	5.93	44.29	74.00	-29.71
11490.00	35.47	Ave	231	1.7	H	5.93	41.40	54.00	-12.60
5356.92	45.12	PK	133	1.5	H	-1.01	44.11	74.00	-29.89
5356.92	38.25	Ave	133	1.5	H	-1.01	37.24	54.00	-16.76
5458.27	46.44	PK	214	1.2	H	-1.36	45.08	74.00	-28.92
5458.27	37.94	Ave	214	1.2	H	-1.36	36.58	54.00	-17.42

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band IV Middle Channel 5785MHz									
223.45	42.07	QP	166	1.9	H	-11.62	30.45	46.00	-15.55
223.45	34.10	QP	341	1.6	V	-11.62	22.48	46.00	-23.52
4534.59	45.80	PK	187	1.5	H	-1.89	43.91	74.00	-30.09
4534.59	50.54	Ave	187	1.5	H	-1.89	48.65	54.00	-5.35
11570.00	41.07	PK	278	1.0	H	5.81	46.88	74.00	-27.12
11570.00	37.62	Ave	278	1.0	H	5.81	43.43	54.00	-10.57
5370.60	46.62	PK	155	1.9	H	-1.04	45.58	74.00	-28.42
5370.60	38.90	Ave	155	1.9	H	-1.04	37.86	54.00	-16.14
5420.77	46.44	PK	200	1.4	H	-1.36	45.08	74.00	-28.92
5420.77	38.85	Ave	200	1.4	H	-1.36	37.49	54.00	-16.51

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) band IV low Channel 5825MHz									
223.45	41.80	QP	72	1.6	H	-11.62	30.18	46.00	-15.82
223.45	33.33	QP	133	1.3	V	-11.62	21.71	46.00	-24.29
4524.09	45.40	PK	270	1.1	H	-1.97	43.43	74.00	-30.57
4524.09	51.39	Ave	270	1.1	H	-1.97	49.42	54.00	-4.58
11650.00	40.69	PK	287	1.6	H	5.84	46.53	74.00	-27.47
11650.00	37.59	Ave	287	1.6	H	5.84	43.43	54.00	-10.57
5373.88	46.61	PK	269	1.8	H	-1.12	45.49	74.00	-28.51
5373.88	39.61	Ave	269	1.8	H	-1.12	38.49	54.00	-15.51
5439.58	45.67	PK	346	1.4	H	-1.36	44.31	74.00	-29.69
5439.58	38.98	Ave	346	1.4	H	-1.36	37.62	54.00	-16.38

**Test Frequency: 18GHz~40GHz**

The measurements were more than 20 dB below the limit and not reported.

Waltek Services (Shenzhen) Co.,Ltd.

<http://www.waltek.com.cn>

## 10 Duty cycle

Test Requirement:	47 CFR Part 15C 15.407
Test Method:	ANSI C63.10: 2013
Test Limit:	N/A
Test Result:	PASS
Remark:	Through Pre-scan, and found 802.11a at lowest channel is the worst case. Only the worst case is recorded in the report.

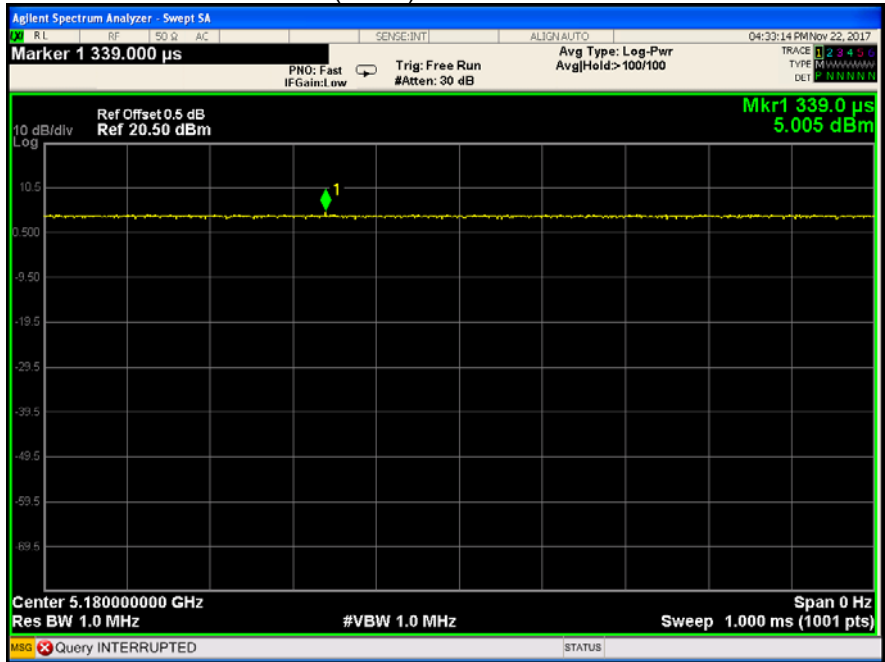
### 10.1 Summary of Test Results

Band I			
802.11a(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	100	100	100
802.11n(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	100	100	100
Band IV			
802.11a(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
149	100	100	100
802.11n(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
149	100	100	100

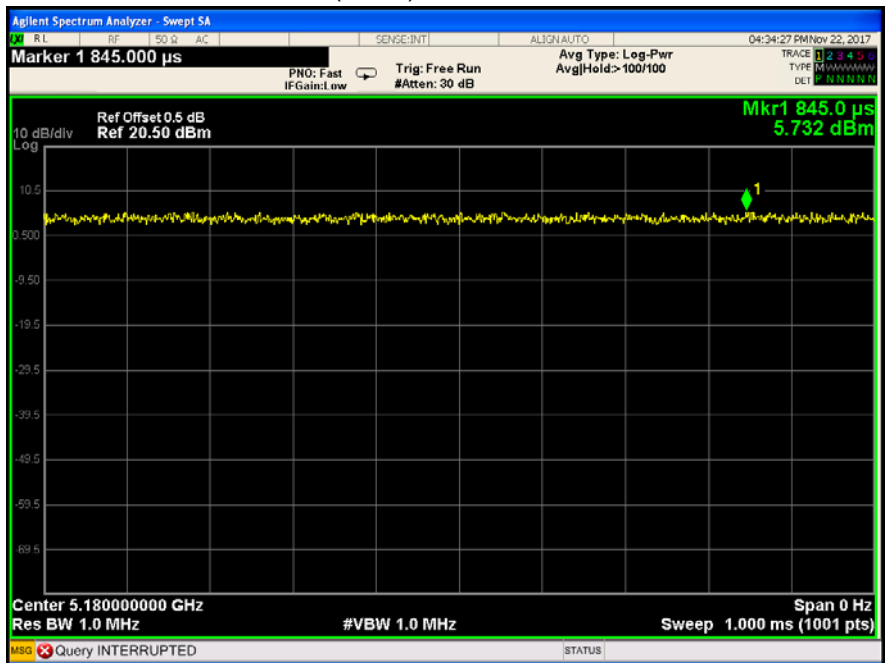
Test result plots shown as follows:

Band I

802.11a(HT20) band I Low channel

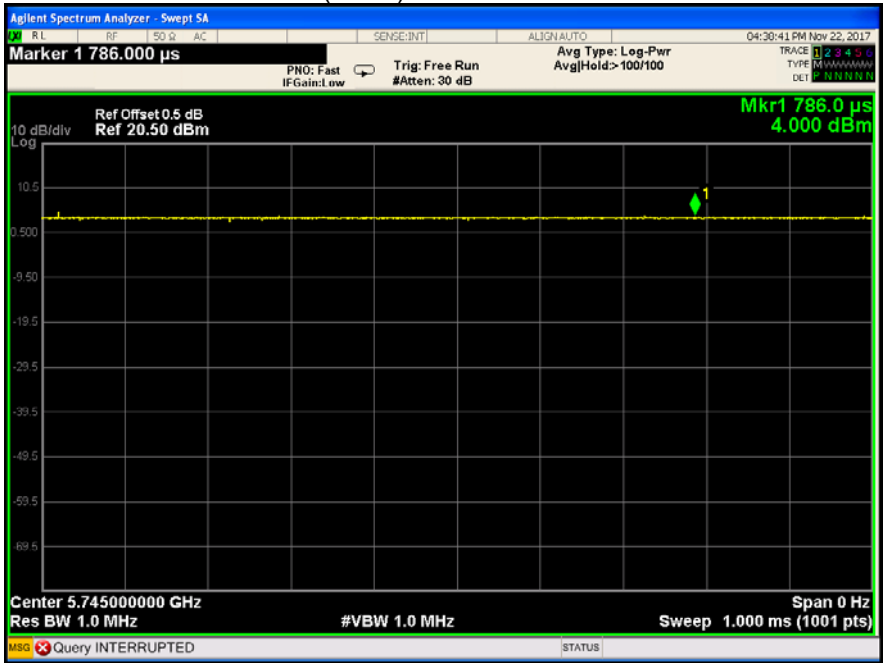


802.11n(HT20) band I Low channel

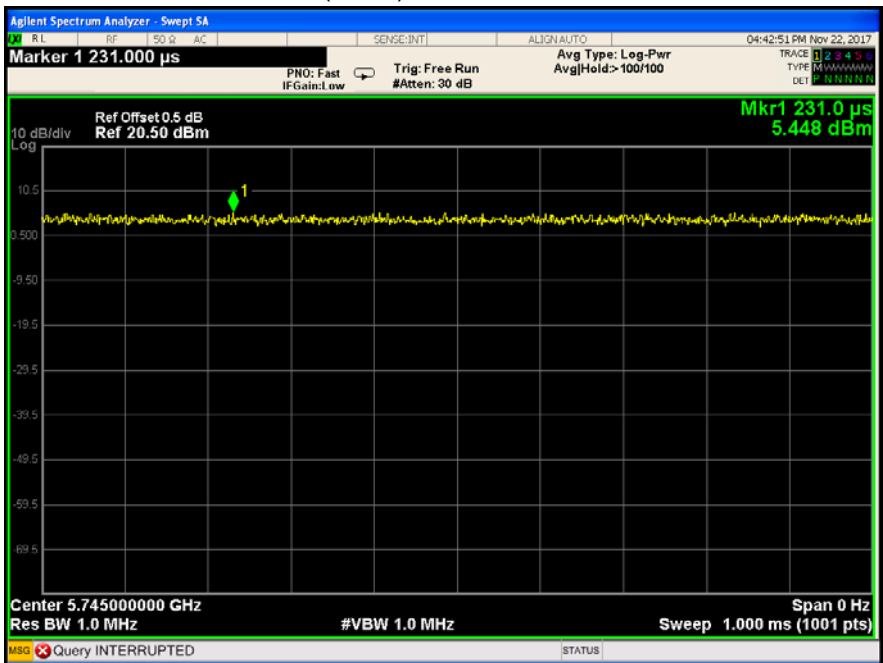


Band IV

802.11a(HT20) band IV Low channel



802.11n(HT20) band IV Low channel



## 11 Band Edge

Test Requirement:	FCC CFR47 Part 15 Section 15.407
Test Method:	ANSI C63.10 2013
Test Limit:	(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 -27dBm/MHz. (2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
Test Result:	PASS

### 11.1 Test Produce

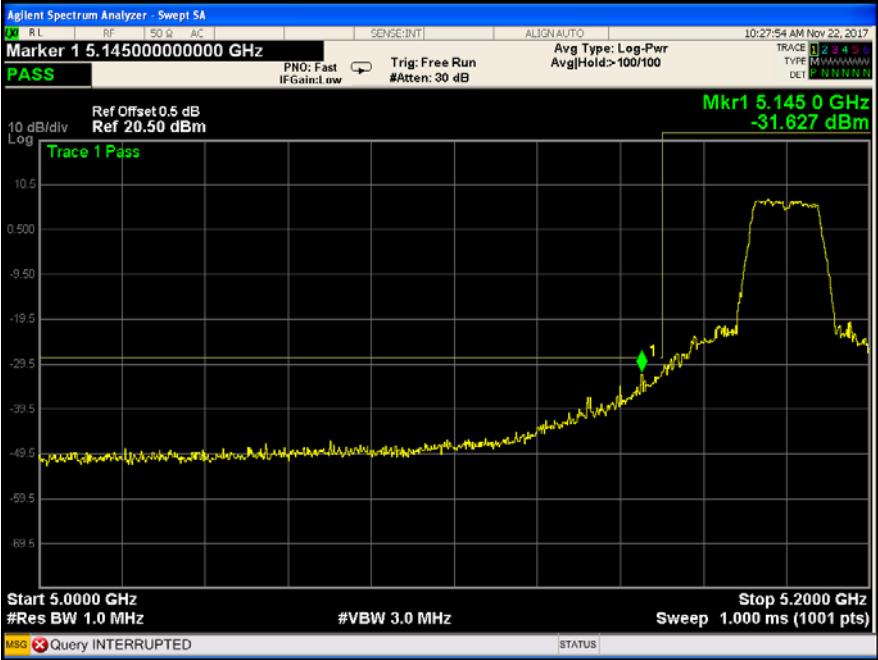
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

11.2 Test Result

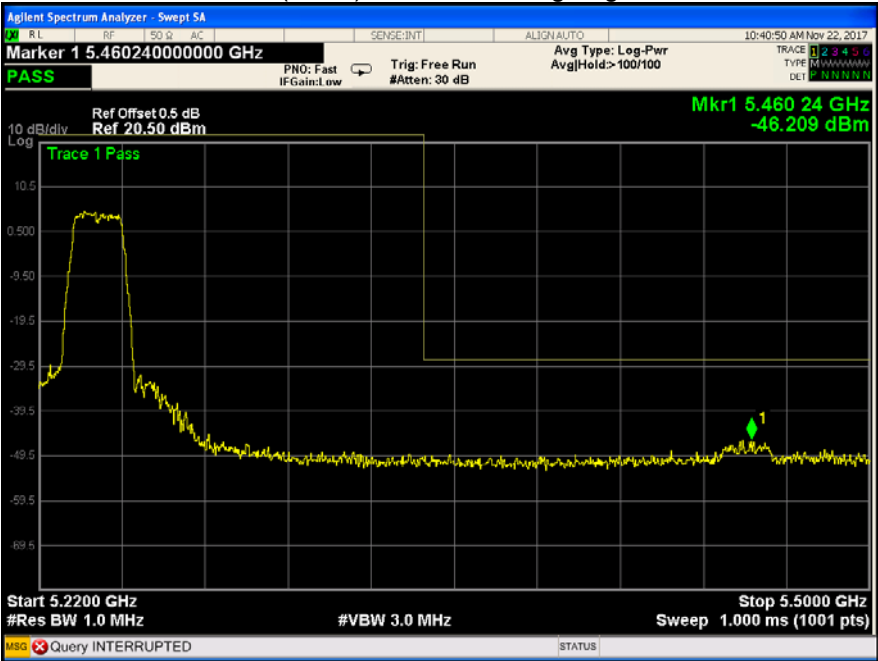
Test result plots shown as follows:

Band I

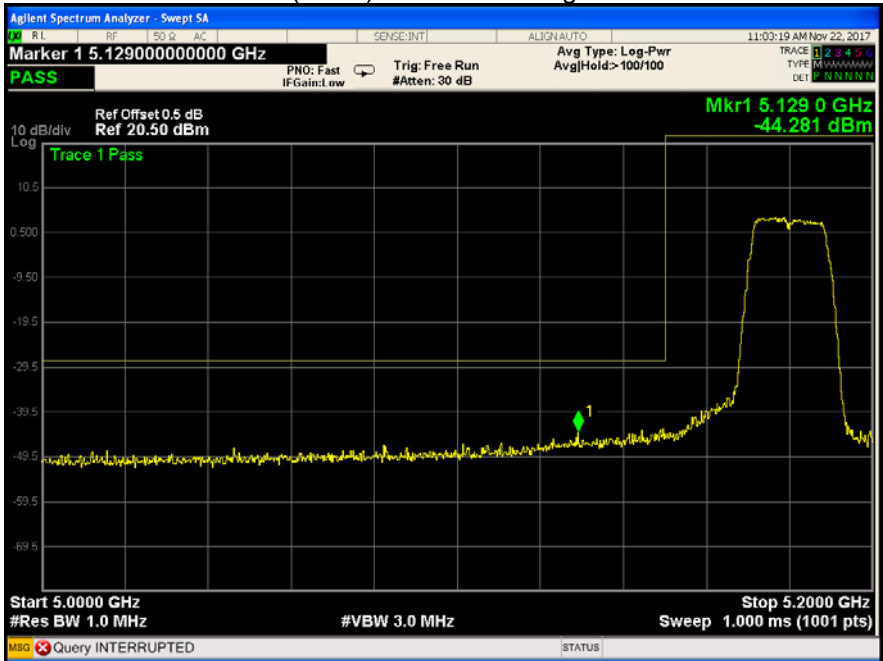
802.11a(HT20) band I Band edge-left side



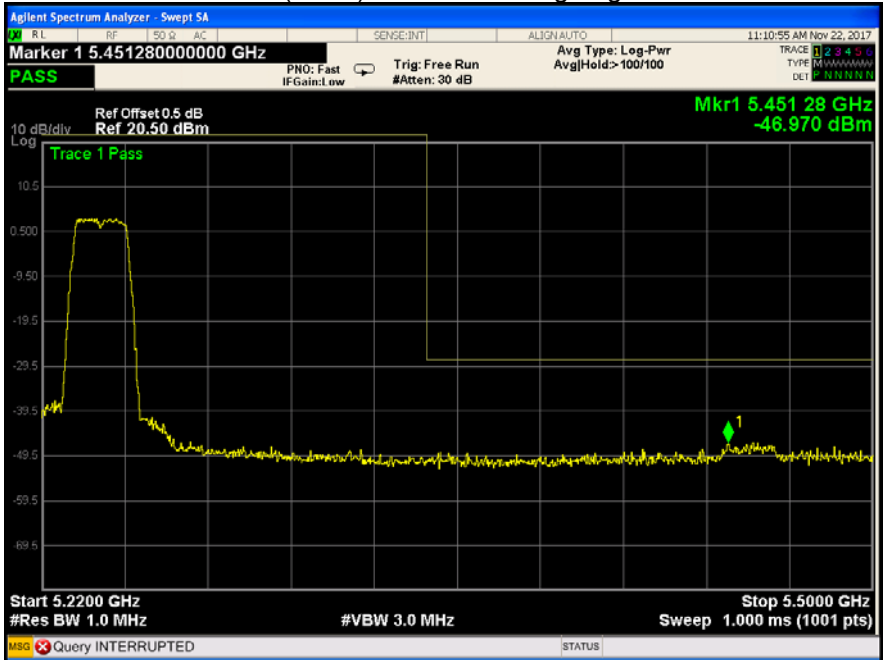
802.11a(HT20) band I Band edge-right side



802.11n(HT20) band I Band edge-left side



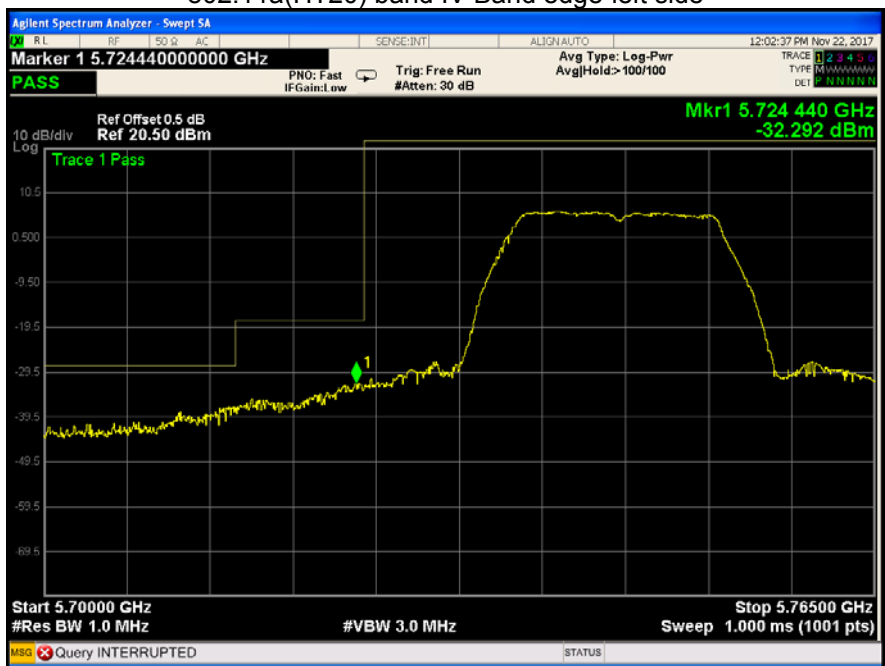
802.11n(HT20) band I Band edge-right side





Band IV

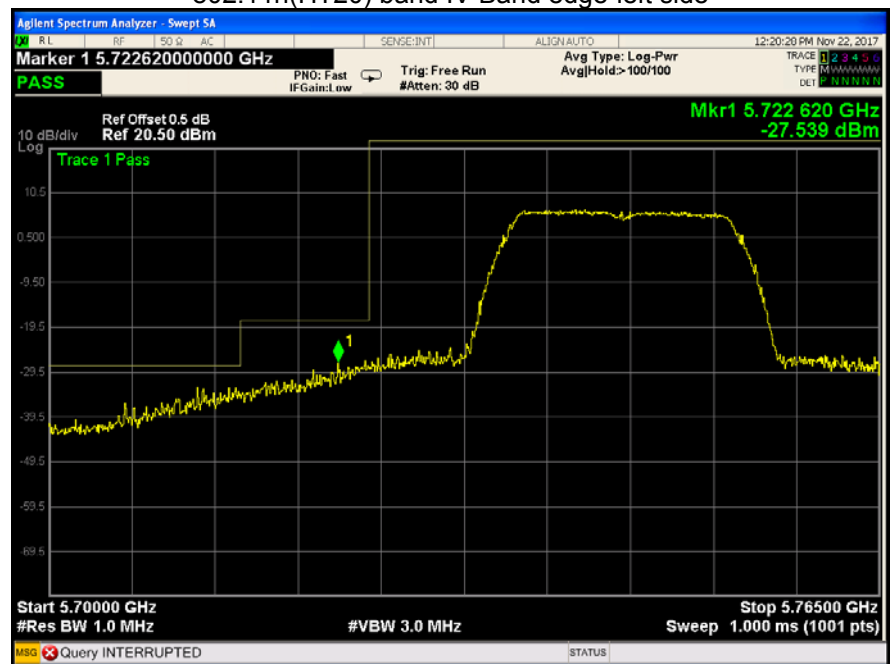
802.11a(HT20) band IV Band edge-left side



802.11a(HT20) band IV Band edge-right side



802.11n(HT20) band IV Band edge-left side



802.11n(HT20) band IV Band edge-right side



## 12 26 dB Bandwidth and 99% Occupied Bandwidth

Test Requirement: 47 CFR Part 15C Section 15.407 (a)  
 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01  
 Test Method: KDB 644545 D03 Guidance for IEEE 802.11ac v01  
 Test Limit: No restriction limits  
 Test Result: PASS

### 12.1 Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz

### 12.2 Test Result:

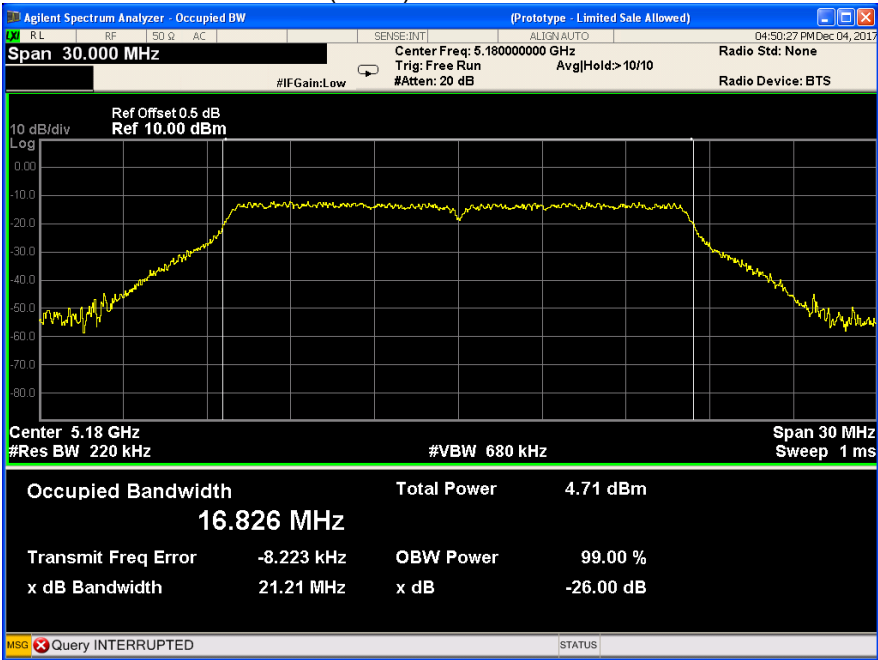
Band I	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
	802.11a(HT20)	21.21	21.29	21.77	16.826	16.876	16.768
	802.11n(HT20)	21.04	21.31	21.38	17.876	17.897	17.909

Band IV	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
	802.11a(HT20)	25.46	28.57	28.41	16.896	17.100	17.055
	802.11n(HT20)	22.62	29.93	28.59	17.945	17.419	18.233

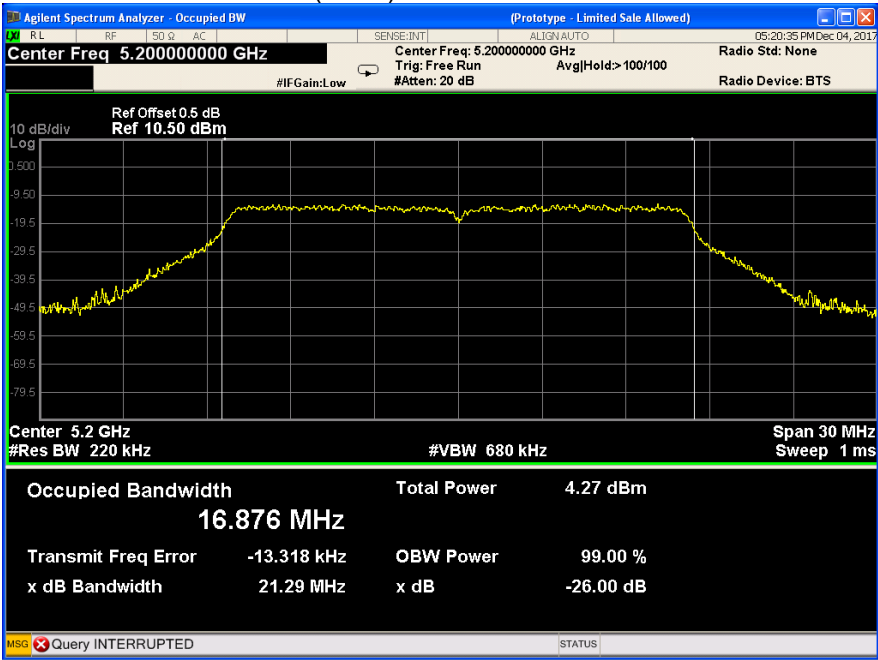
Test result plots shown as follows:

Band I

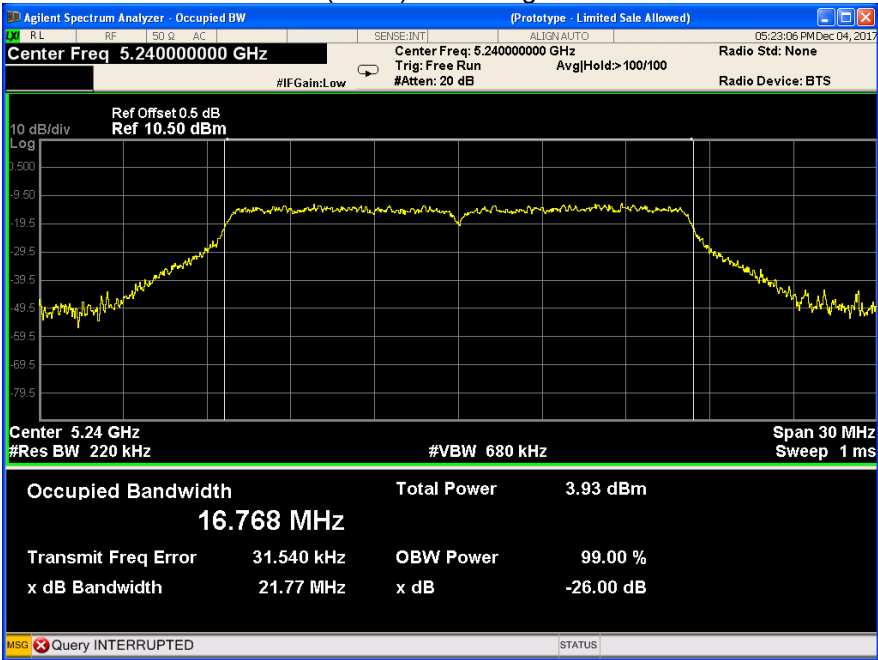
802.11a(HT20) band I Low channel



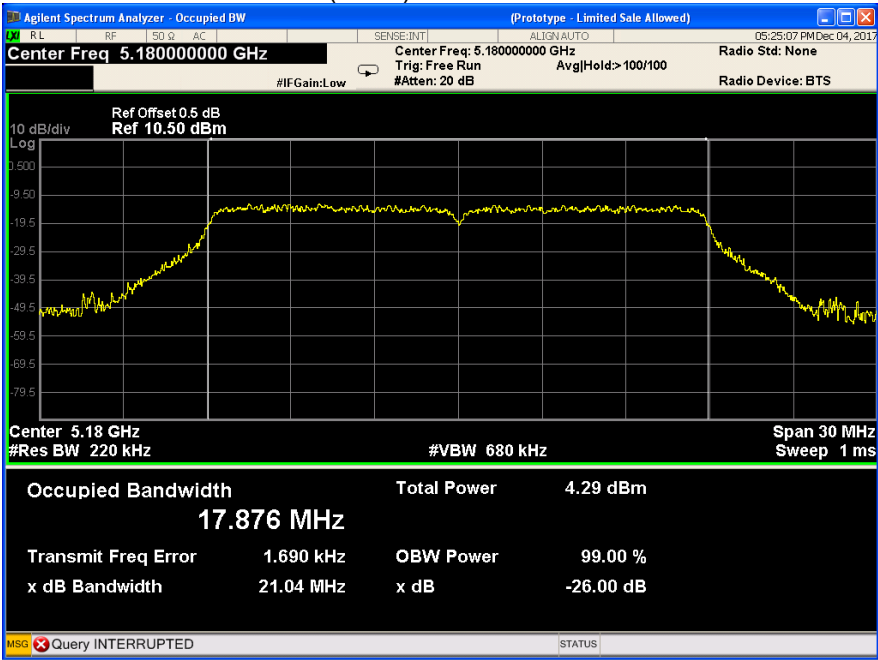
802.11a(HT20) band I Middle channel



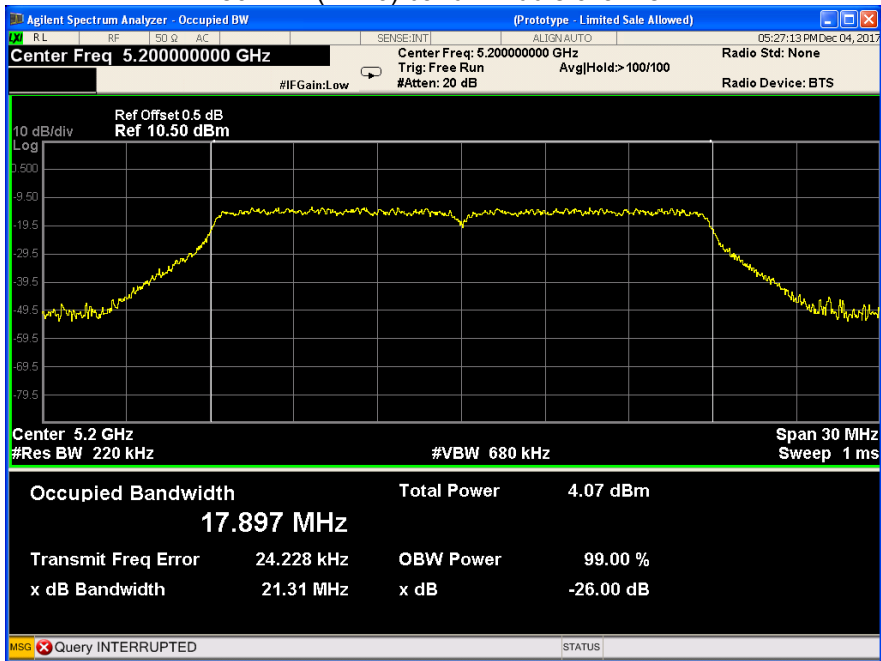
802.11a(HT20) band I High channel



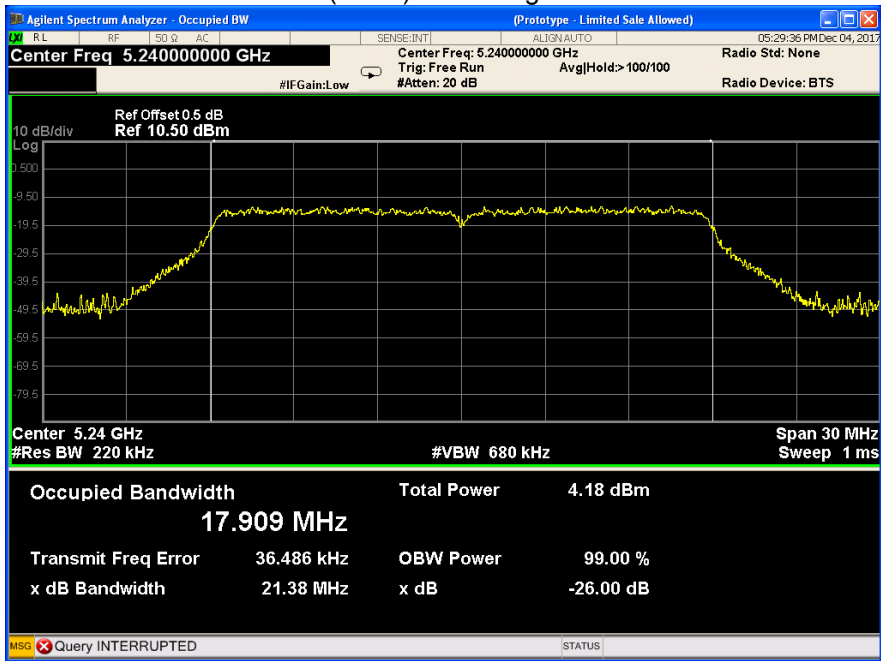
802.11n(HT20) band I Low channel



802.11n(HT20) band I Middle channel

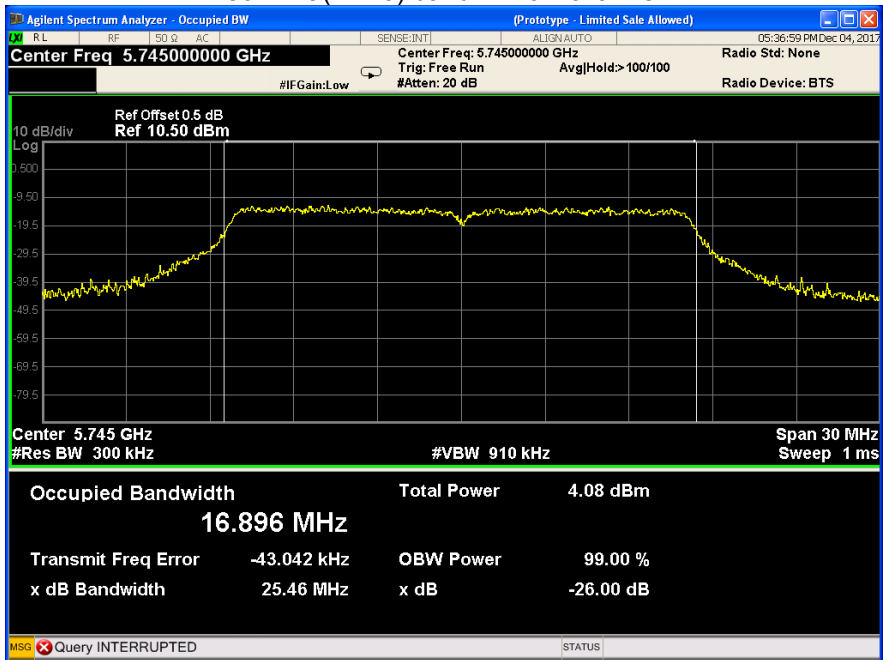


802.11n(HT20) band I High channel

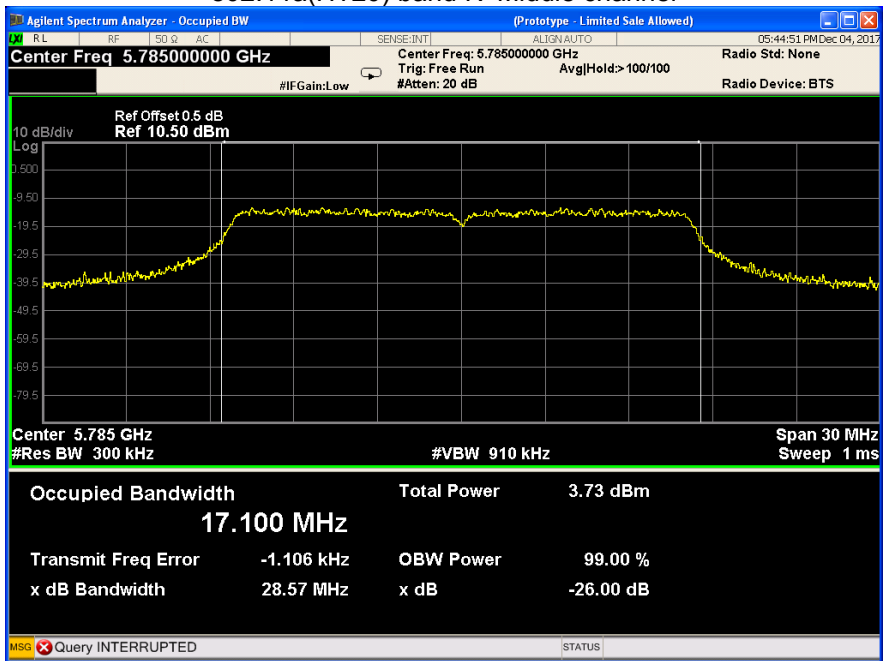


Band IV

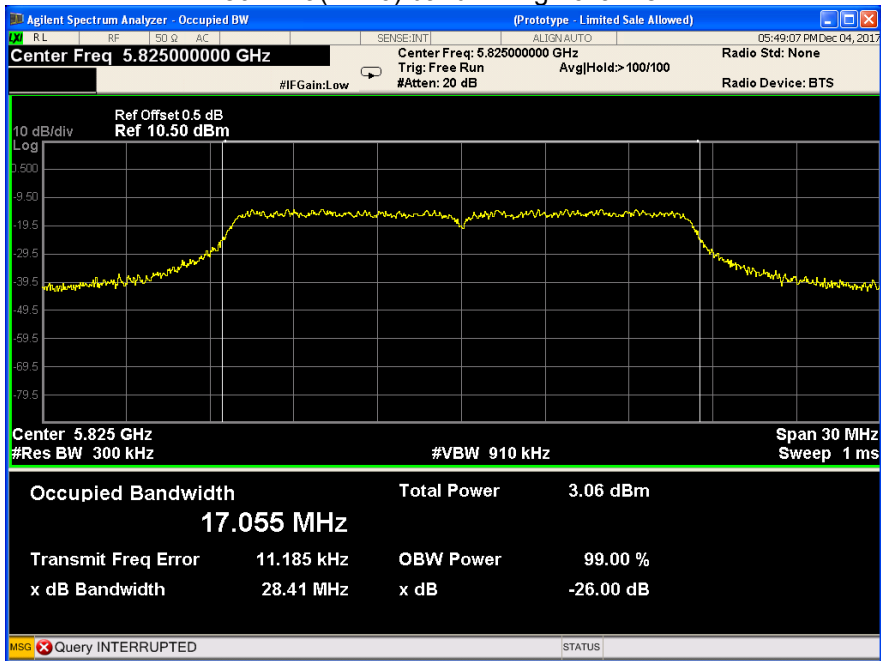
802.11a(HT20) band IV Low channel



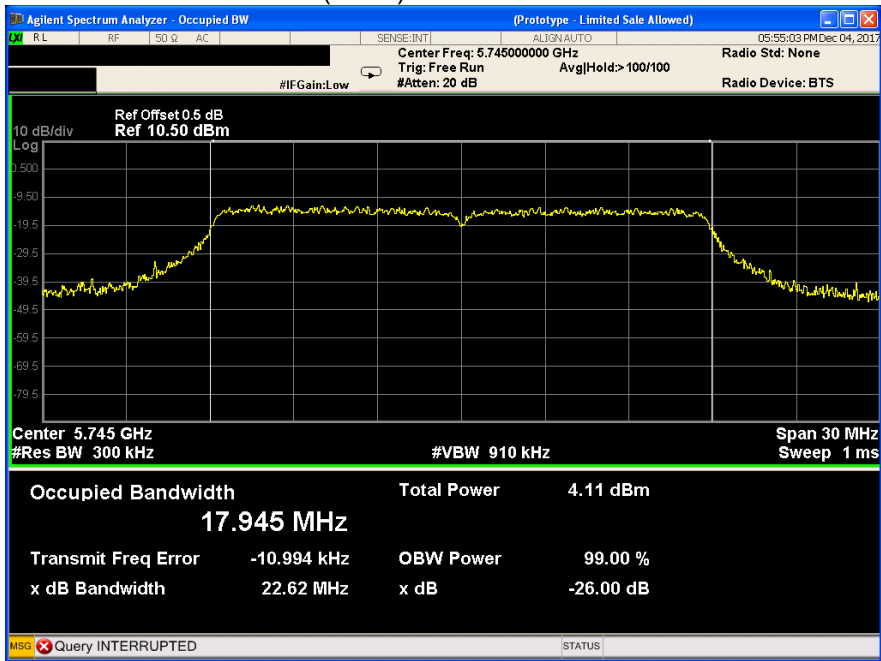
802.11a(HT20) band IV Middle channel



802.11a(HT20) band IV High channel

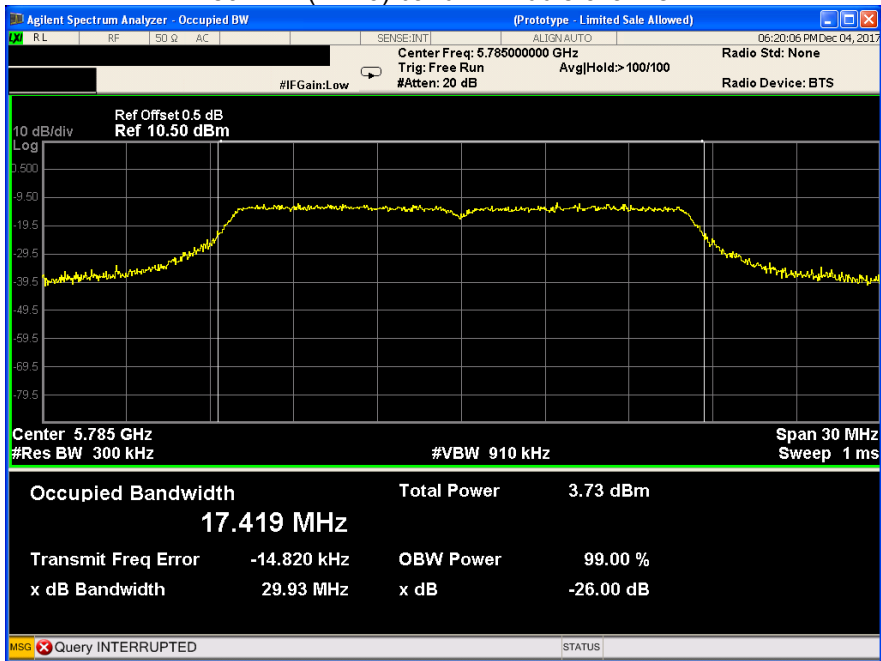


802.11n(HT20) band IV Low channel

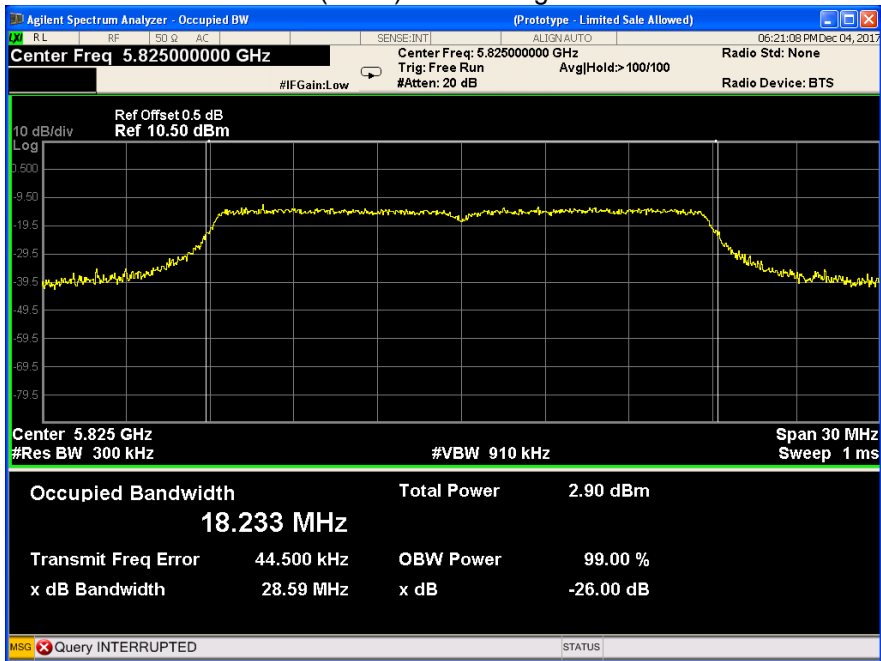




802.11n(HT20) band IV Middle channel



802.11n(HT20) band IV High channel



### 13 Conducted Output Power

Test Requirement:	FCC CFR47 Part 15 Section 15.407(a)
Test Method:	789033 D02 General U-NII Test Procedures New Rules v02r01 KDB 644545 D03 Guidance for IEEE 802.11ac v01
Test Limit:	24dBm
Test Result:	PASS Conducted output power= measurement power+10log(1/x)
Remark:	X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power

#### 13.1 Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1 MHz. VBW = 3 MHz. Sweep = auto; Detector Function = Peak, Set the span to fully encompass the DTS bandwidth.
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

#### 13.2 Test Result:

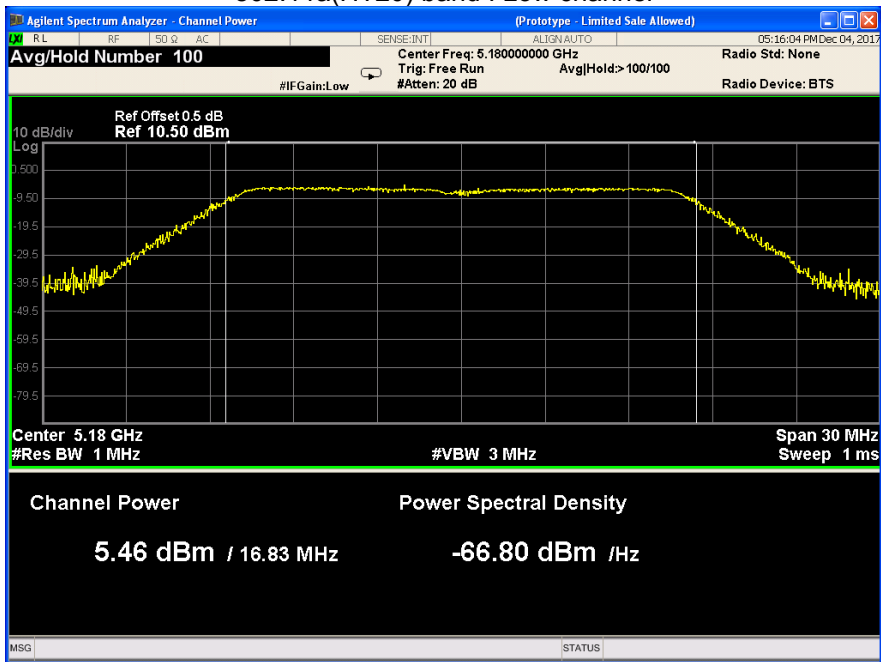
Band I	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
	802.11a(HT20)	5.46	4.75	4.73
	802.11n(HT20)	4.76	4.59	4.76

Band IV	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
	802.11a(HT20)	4.70	4.27	3.86
	802.11n(HT20)	4.66	4.29	4.60

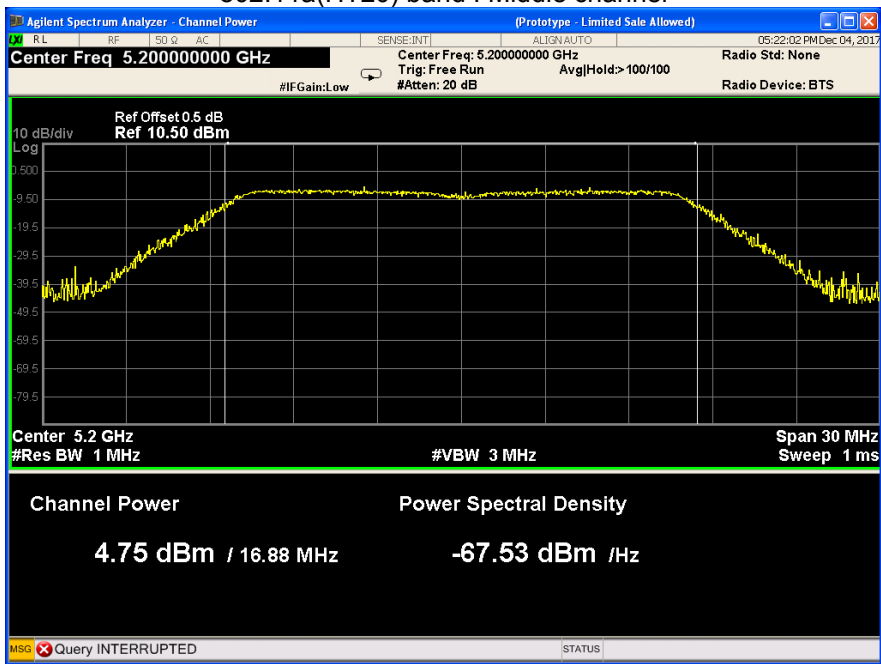
Test result plots shown as follows:

Band I

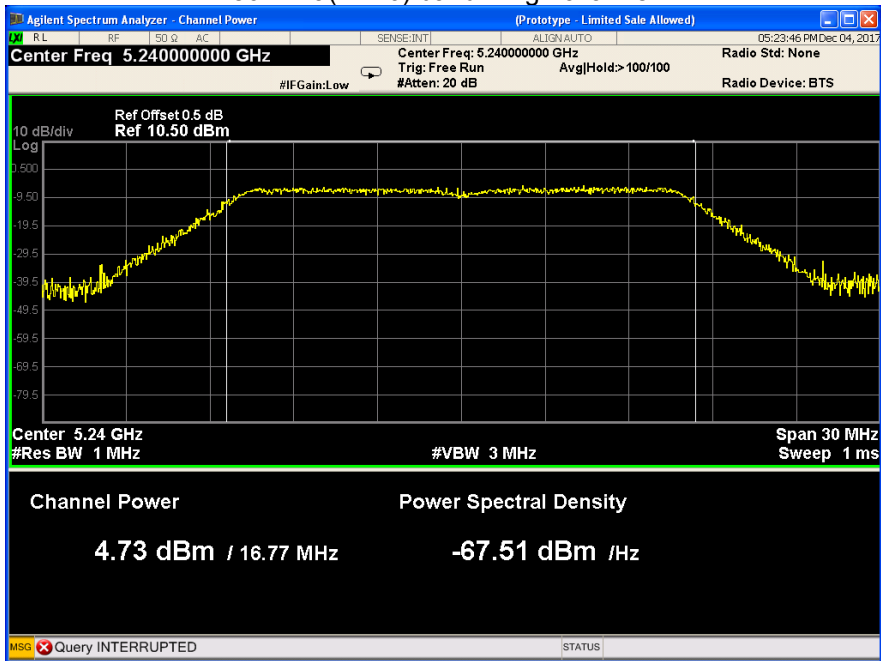
802.11a(HT20) band I Low channel



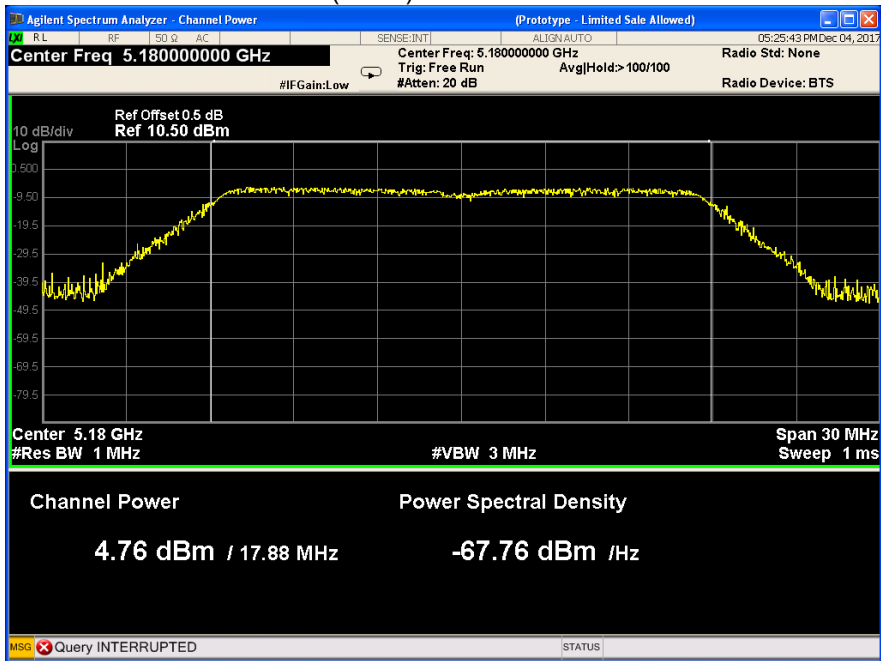
802.11a(HT20) band I Middle channel



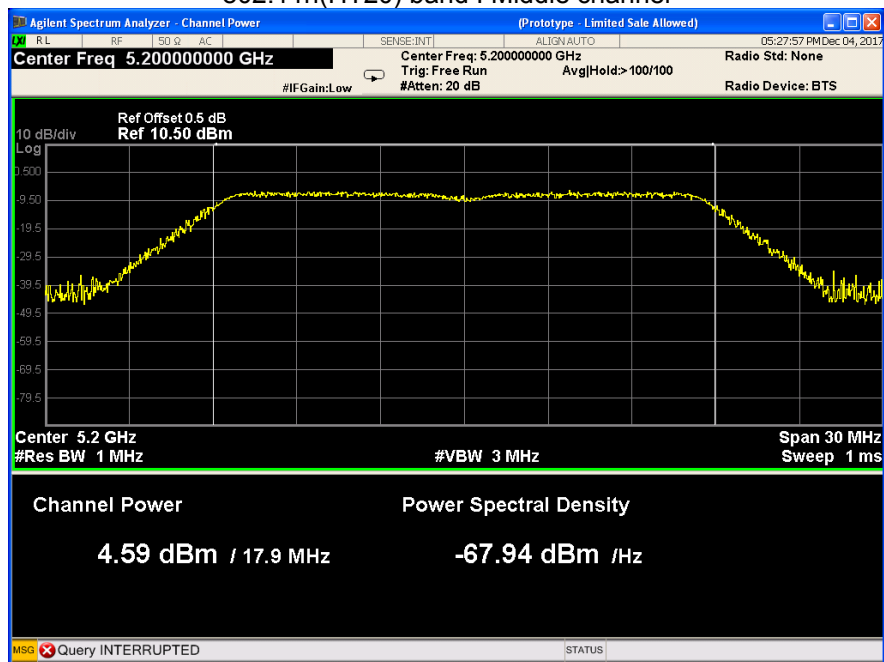
802.11a(HT20) band I High channel



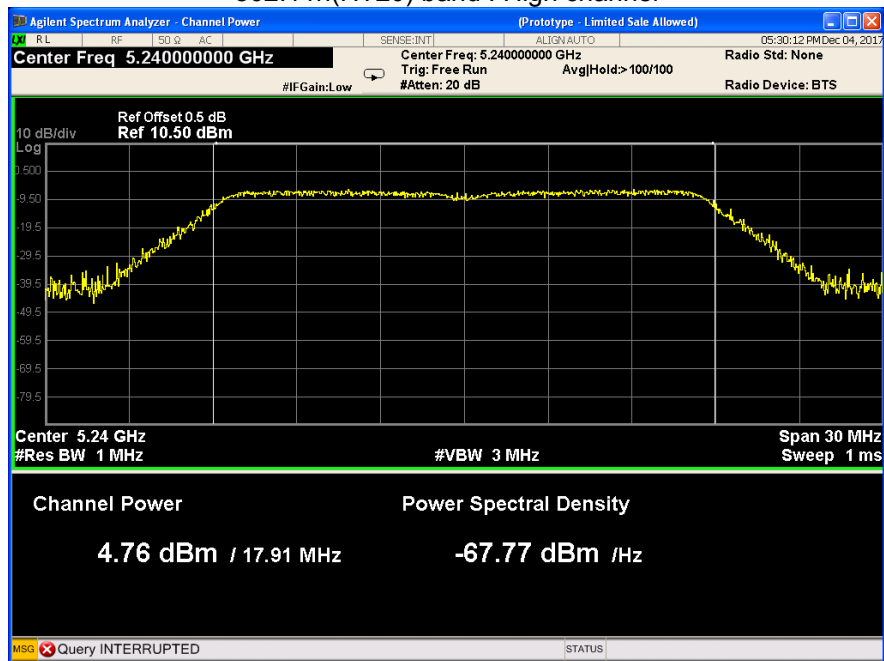
802.11n(HT20) band I Low channel



802.11n(HT20) band I Middle channel

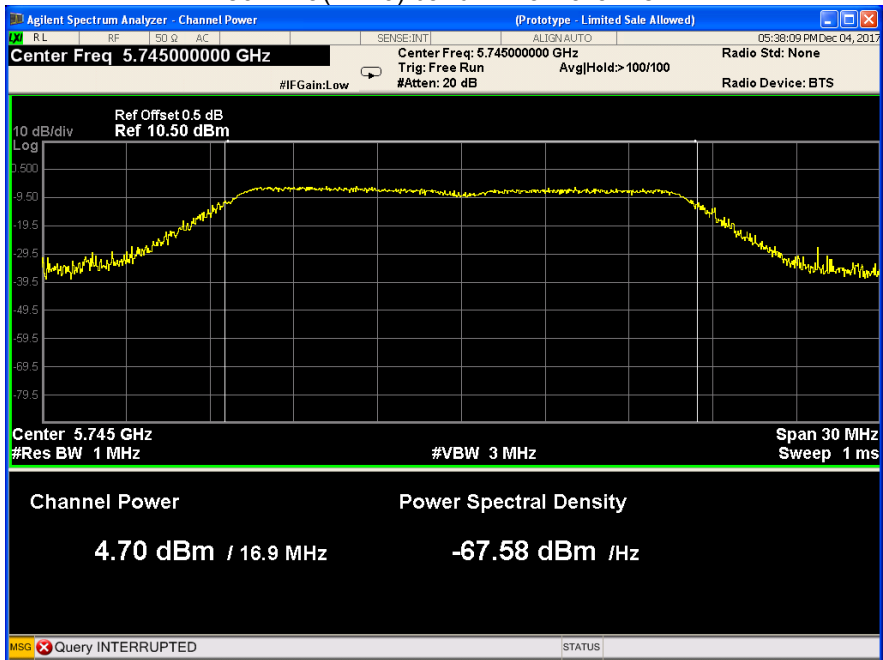


802.11n(HT20) band I High channel

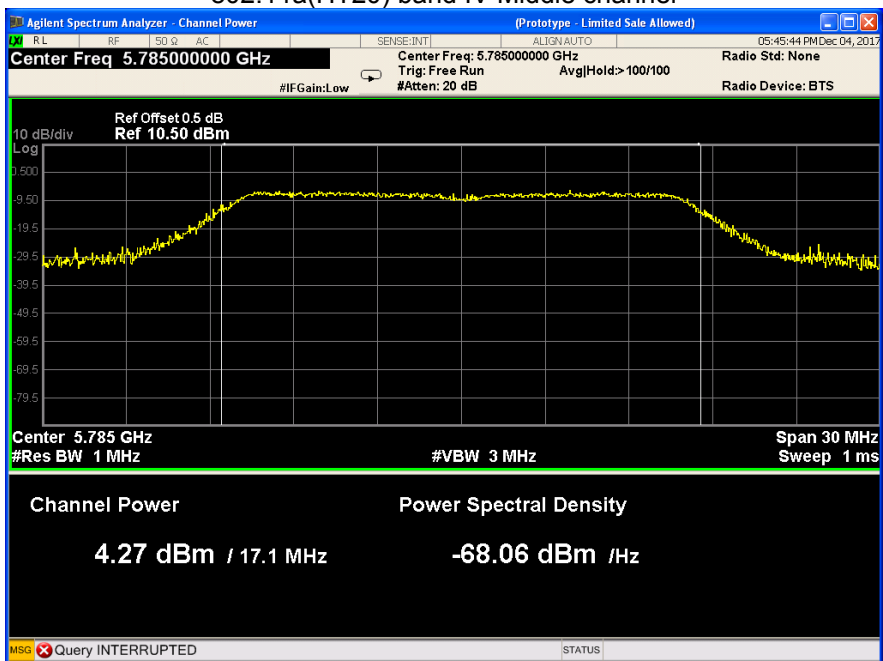


Band IV

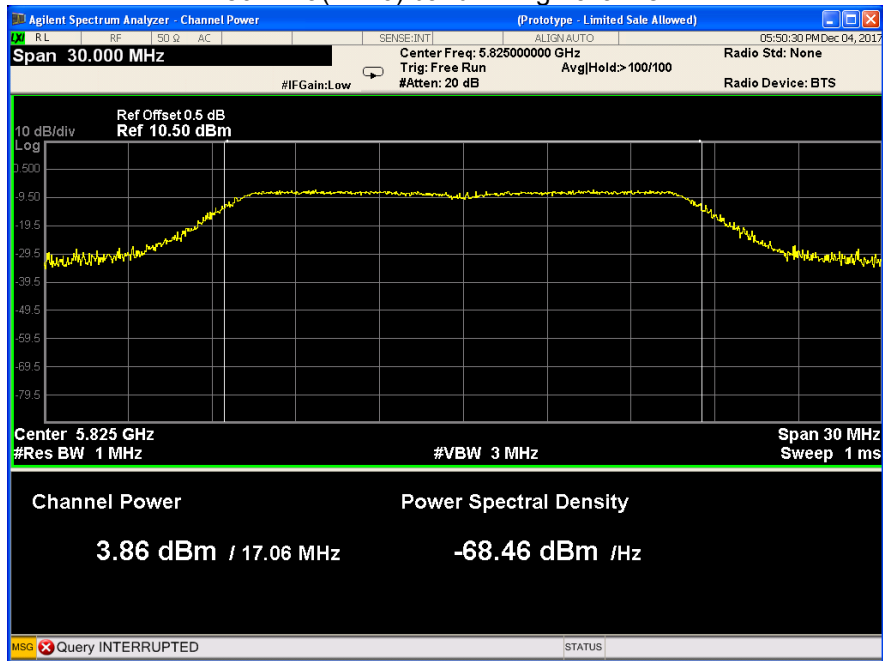
802.11a(HT20) band IV Low channel



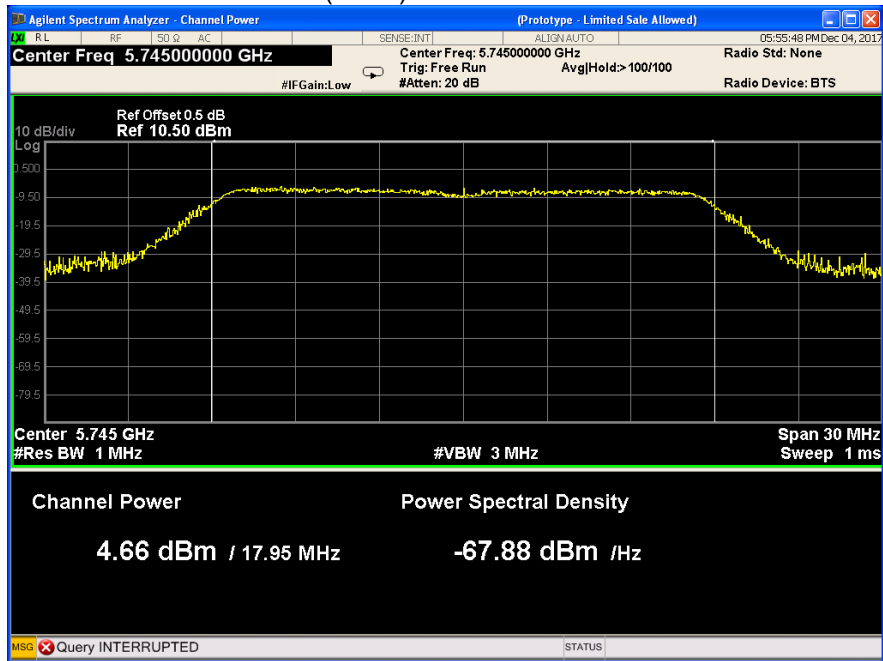
802.11a(HT20) band IV Middle channel



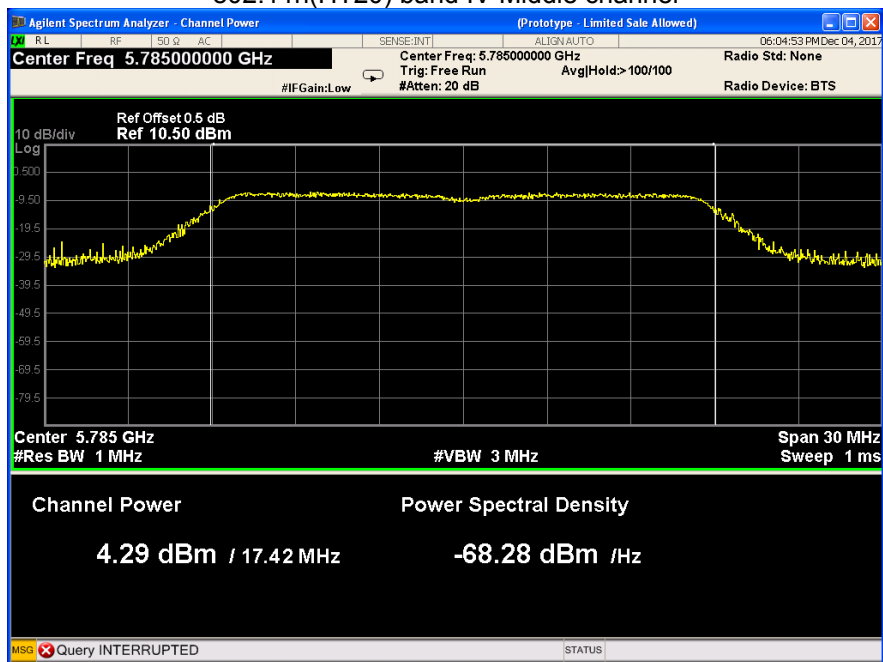
802.11a(HT20) band IV High channel



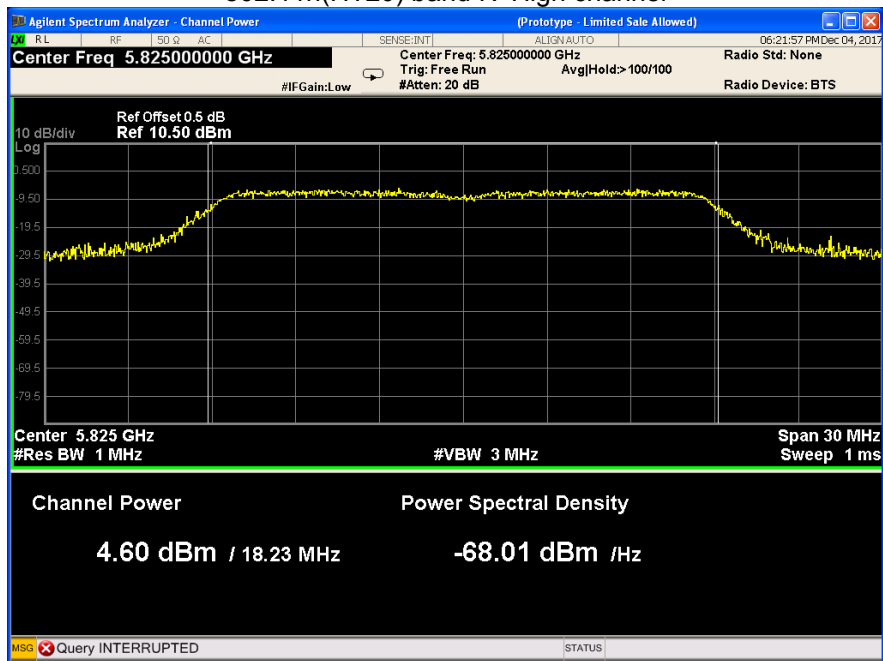
802.11n(HT20) band IV Low channel



802.11n(HT20) band IV Middle channel



802.11n(HT20) band IV High channel





## 14 Power Spectral density

Test Requirement:	FCC CFR47 Part 15 Section 15.407(a) KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test Method:	KDB 644545 D03 Guidance for IEEE 802.11ac v01
Test Limit:	$\leq 11\text{dBm/MHz}$ for Operation in the band I(5150MHz-5250MHz)of device
Test Result:	PASS

### 14.1 Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 510kHz/1MHz. VBW  $\geq 3$  RBW Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section  
Submit this plot.

### 14.2 Test Result:

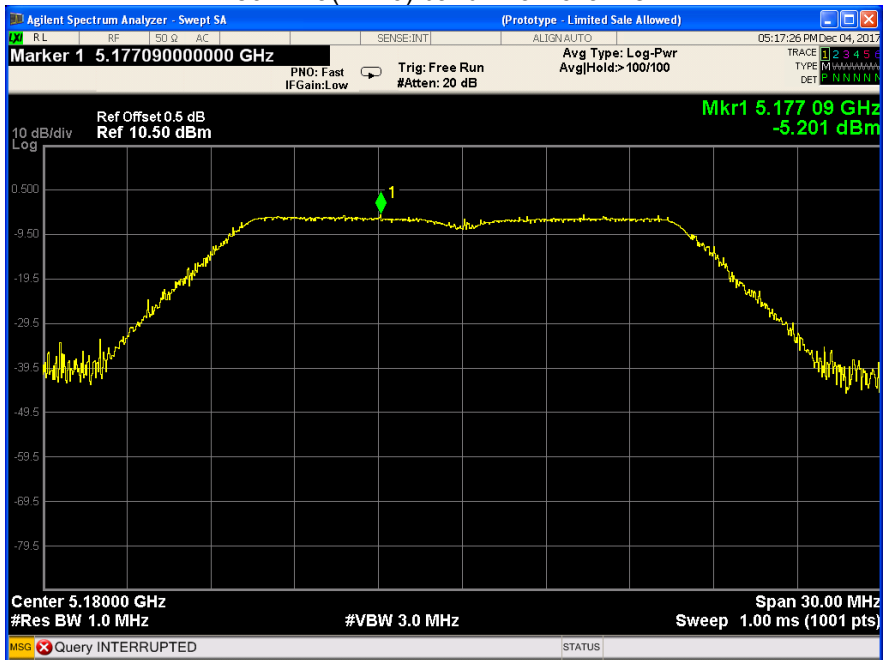
Band I	Operation mode	Power Spectral Density (dBm/MHz)		
		Low	Middle	High
	802.11a(HT20)	-5.201	-4.875	-4.509
	802.11n(HT20)	-5.280	-5.314	-5.408
	Limit	$\leq 11\text{dBm/MHz}$		

Band IV	Operation mode	Power Spectral Density (dBm/MHz)		
		Low	Middle	High
	802.11a(HT20)	-9.682	-7.875	-10.379
	802.11n(HT20)	-8.008	-9.885	-8.727
	Limit	$\leq 11\text{dBm/MHz}$		

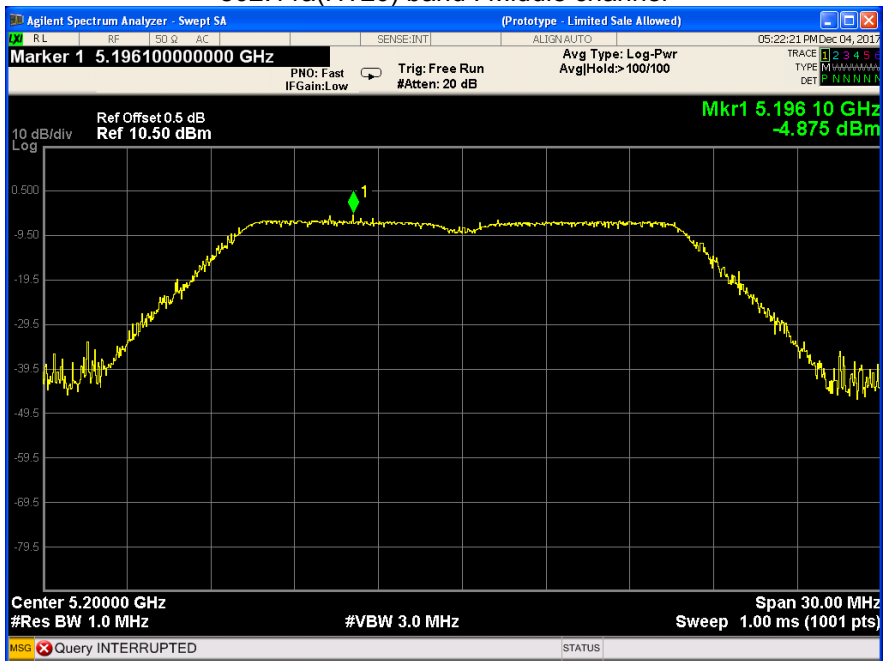
Test result plots shown as follows:

Band I

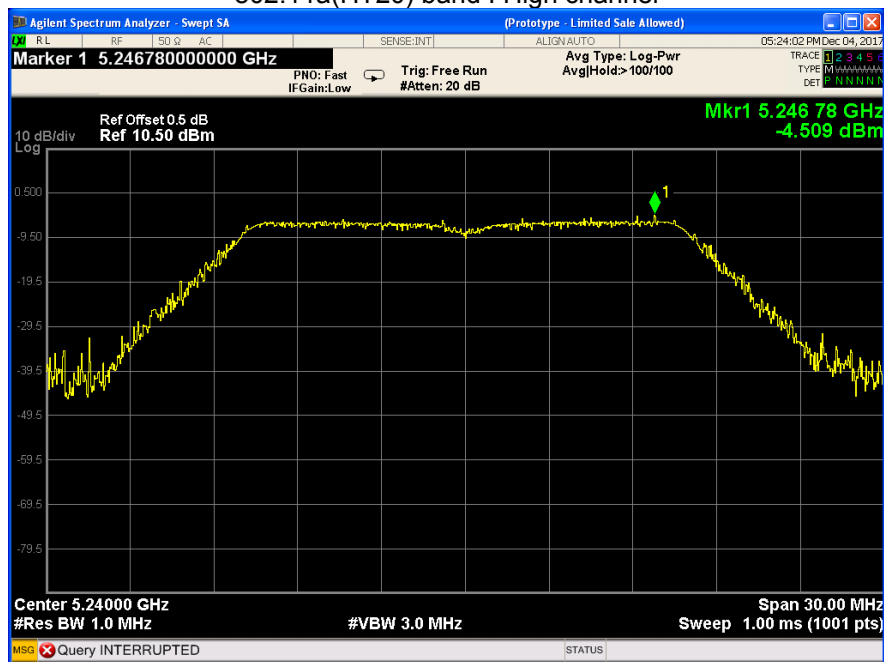
802.11a(HT20) band I Low channel



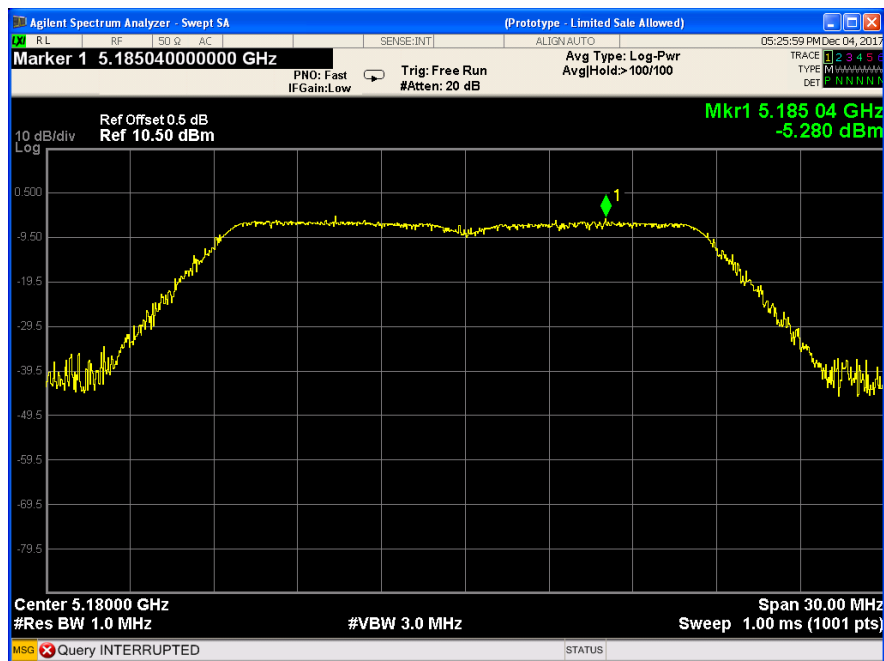
802.11a(HT20) band I Middle channel



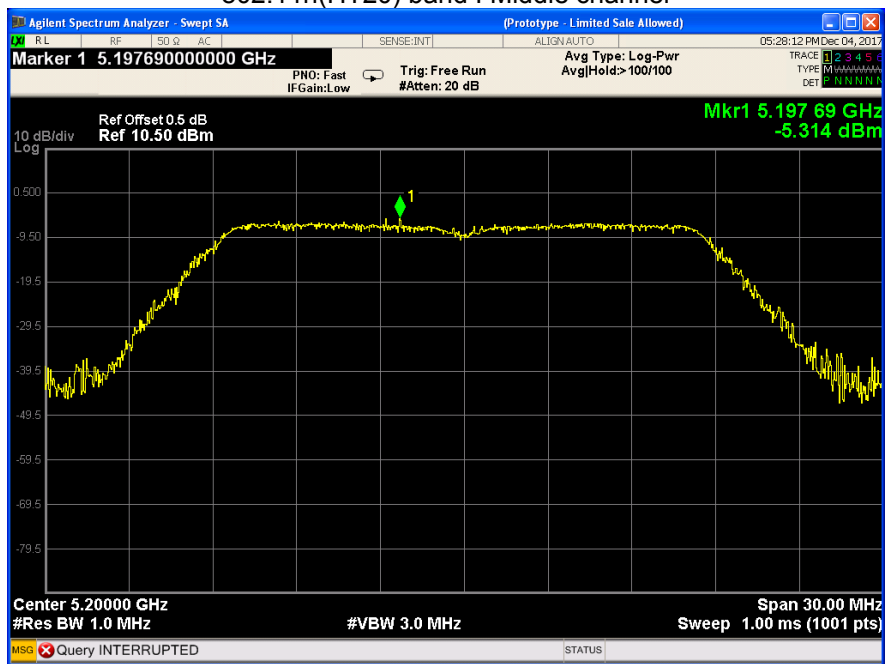
802.11a(HT20) band I High channel



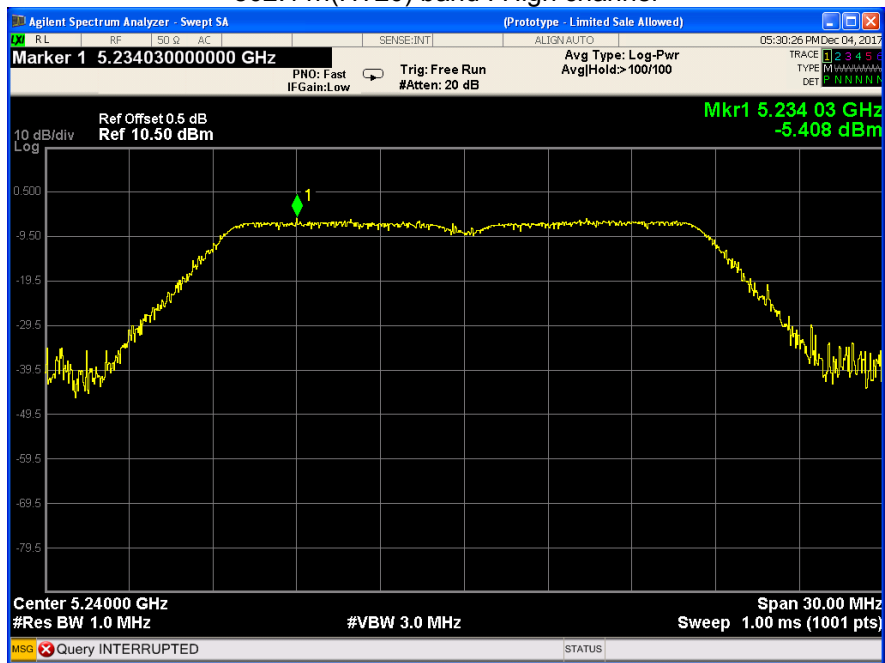
802.11n(HT20) band I Low channel



802.11n(HT20) band I Middle channel



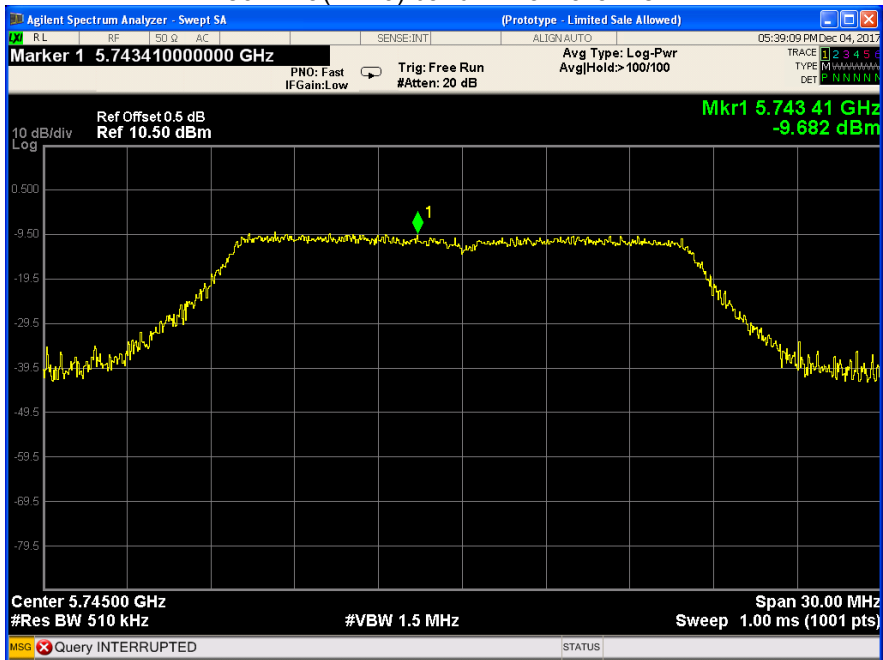
802.11n(HT20) band I High channel



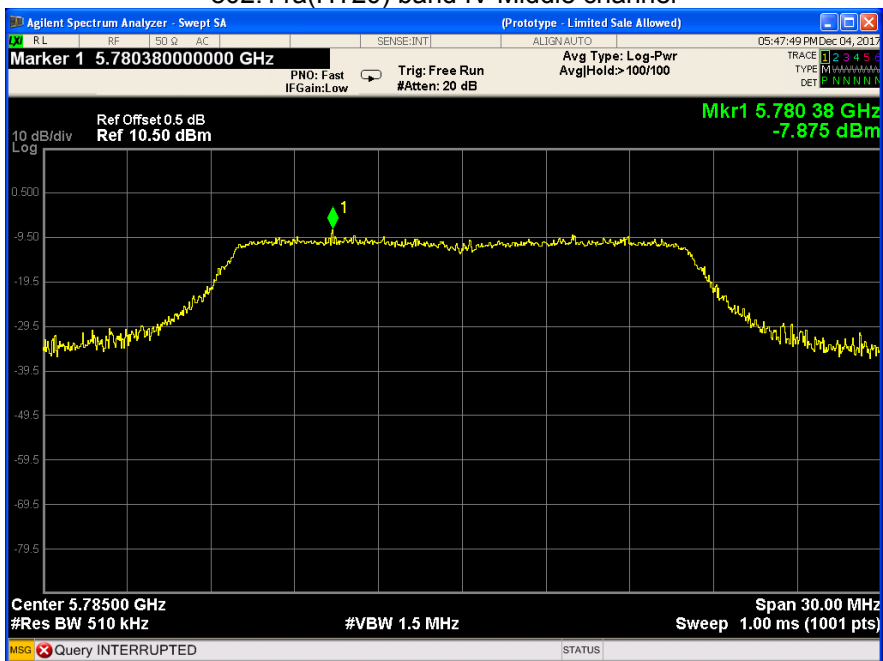
Test result plots shown as follows:

Band IV

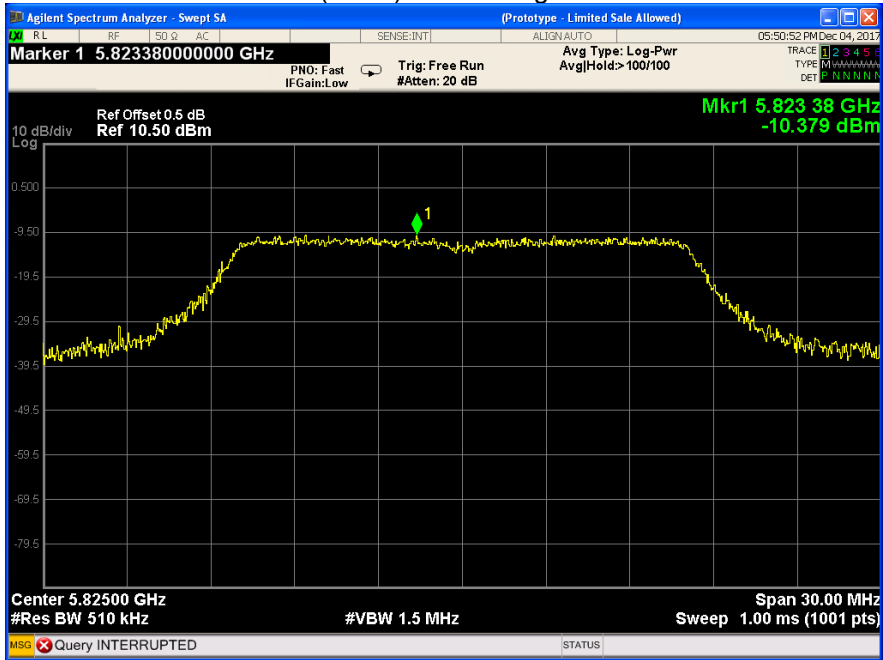
802.11a(HT20) band IV Low channel



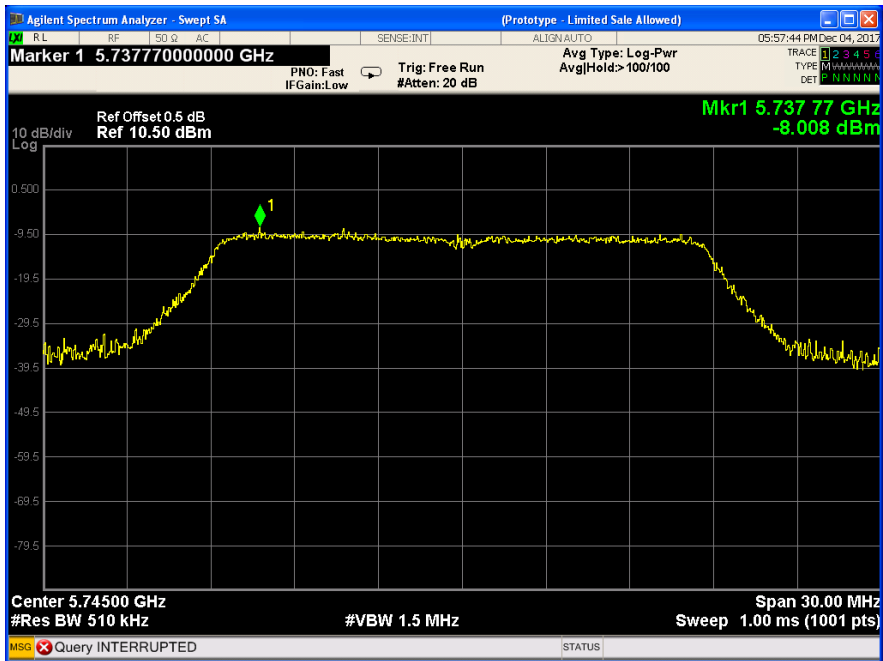
802.11a(HT20) band IV Middle channel



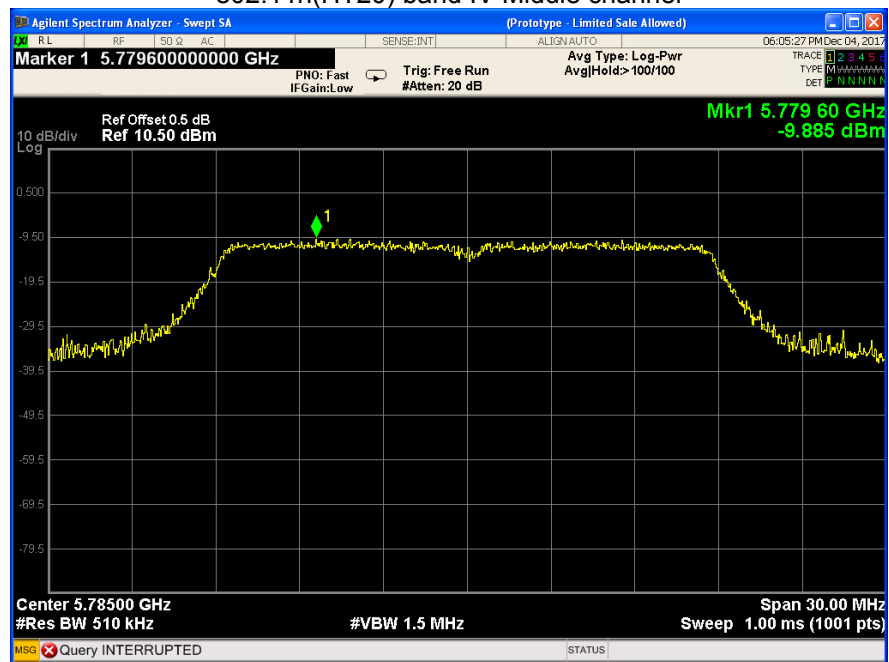
802.11a(HT20) band IV High channel



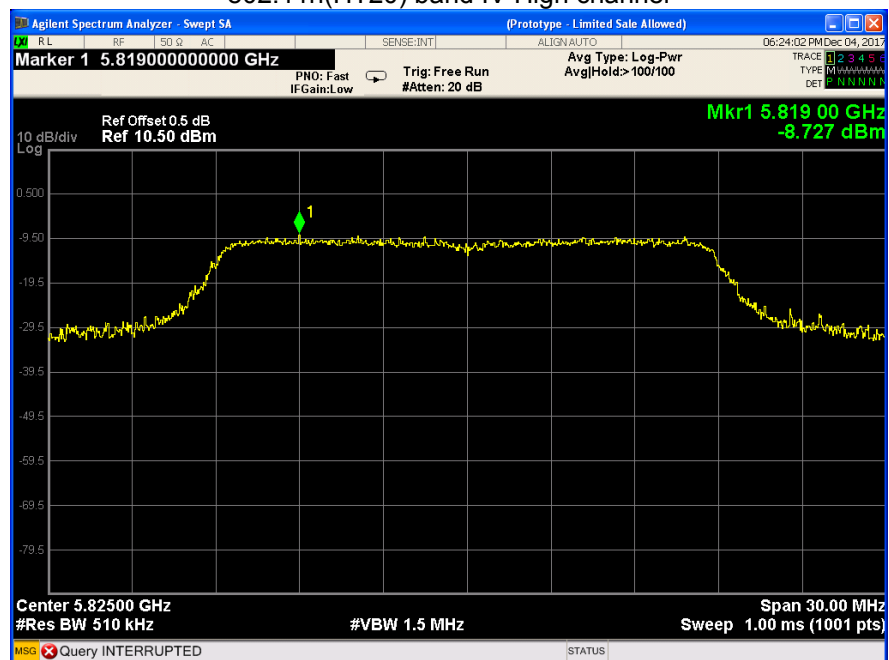
802.11n(HT20) band IV Low channel



802.11n(HT20) band IV Middle channel



802.11n(HT20) band IV High channel



## **15 Antenna Requirement**

According to the FCC Part 15 Paragraph 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. This product has an internal integrated antenna fulfill the requirement of this section.



## **16 RF Exposure**

Remark: refer to SAR test report: WTS17S0888245E.

## **17 Photographs of test setup and EUT.**

Note: Please refer to appendix: WTS17S0888240E\_Photo.

=====End of Report=====