



# TEST REPORT

**FCC ID: 2ALUY-SC100**

**Applicant** : Latent Wireless  
**Address** : 37 Norwood Circle, Iowa City, IA 52245

**Equipment under Test (EUT):**

**Name** : 300M 2.4G&5G wireless adapter  
**Model** : SC-1

**Standards** : FCC PART 15, SUBPART C : 2015 (Section 15.407)  
ANSI C63.4:2014 ; ANSI C63.10:2013

**Report No.** : T1870445 02  
**Date of Test** : April 3, 2017 - May 11, 2017  
**Date of Issue** : May 11, 2017

<b>Test Result :</b>	<b>PASS *</b>
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\* In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

(Mark Zhu)  
General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Alpha Product Testing Co., Ltd. Or test done by Shenzhen Alpha Product Testing Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Alpha Product Testing Co., Ltd. Approvals in writing.

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## TEST REPORT VERIFICATION

Applicant : Latent Wireless  
Manufacturer : Shenzhen xunman Technology co.,ltd  
EUT Description : 300M 2.4G&5G wireless adapter  
(A) Model No. : SC-1  
(B) Trademark : N/A  
(C) Ratings Supply : DC 5V from USB Port  
(D) Test Voltage : DC 5V from USB Port

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart C 2015, ANSI C63.4-2014 ; ANSI C63.10-2013

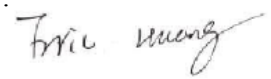
The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both conducted and radiated emissions. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.


Tested by (name + signature).....:

Eric Huang  
Test Engineer

.....  
  
.....

Approved by (name + signature).....:

Simple Guan  
Project Manager

.....  
  
.....

Date of issue.....

May 11, 2017

# 1 General Information

## 1.1 Description of Device (EUT)

Trade Name : N/A

EUT : 300M 2.4G&5G wireless adapter

Model No. SC-1

DIFF. : N/A

Antenna Type : PCB antenna, dipole antenna

Antenna gain : ANT0:2.0dBi; ANT1:2.0dBi.

Operation Frequency : IEEE 802.11n HT20: 5180MHz-5240MHz, 5745MHz-5825MHz  
IEEE 802.11n HT40: 5190MHz-5230MHz, 5755MHz-5795MHz  
IEEE 802.11a: 5180MHz-5240MHz, 5745MHz-5825MHz  
IEEE 802.11n HT20 5.2GHz band: 4 Channels  
IEEE 802.11n HT20 5.8GHz band: 5 Channels

Channel number : IEEE 802.11n HT40 5.2GHz band: 2 Channels  
IEEE 802.11n HT40 5.8GHz band: 2 Channels  
IEEE 802.11a 5.2GHz band : 4 Channels  
IEEE 802.11a 5.8GHz band : 5 Channels  
IEEE 802.11n : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE

Modulation type : 802.11a : OFDM(64QAM, 16QAM, QPSK, BPSK)

Power Supply : DC 5V from USB Port

Note: SISO is for all modes only , no MIMO ; 802.11ac only have 80MHz , no 20MHz and 40MHz mode

Applicant : Latent Wireless

Address : 37 Norwood Circle, Iowa City, IA 52245

Manufacturer : Shenzhen xunman Technology co.,ltd

Address : 2/F., #3 Building, New Development Zone., Baishixia East, Fuyong St., Baoan Dist., Shenzhen, China

## 1.2 Description of Test Facility

Shenzhen Alpha Product Testing Co., Ltd  
Building B, East Area of Nanchang Second, Industrial Zone, Gushu 2nd Road,  
Bao'an, Shenzhen, China

March 25, 2015 File on Federal Communication Commission  
Registration Number: 203110

July 18, 2014 Certificated by IC  
Registration Number: 12135A

## 2 EMC Equipment List

Equipment	Manufacture	Model No.	Serial No.	cal. Date	Cal. Interval
3m Semi-Anechoic	CHENYU	N/A	N/A	2017.07.21	2Year
Spectrum analyzer	Agilent	E4407B	MY46185649	2017.09.29	1 Year
Receiver	R&S	ESPI	101873	2017.09.29	1 Year
Receiver	R&S	ESCI	101165	2017.09.29	1 Year
Bilog Antenna	SCHWARZBECK	VULB 9168	VULB9168-438	2017.09.30	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2017.09.30	2Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	8126466	2017.09.29	1 Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	101043	2017.09.29	1 Year
Cable	Resenberger	N/A	No.1	2017.09.29	1 Year
Cable	SCHWARZBECK	N/A	No.2	2017.09.29	1 Year
Cable	SCHWARZBECK	N/A	No.3	2017.09.29	1 Year
Pre-amplifier	HP	HP8347A	2834A00455	2017.09.29	1 Year
Pre-amplifier	Agilent	8449B	3008A02664	2017.09.29	1 Year
vector Signal Generator	Agilent	N5182A	MY49060042	2017.09.29	1 Year
vector Signal Generator	Agilent	E4438C	US44271917	2017.09.29	1 Year
X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54080020	2017.09.29	1 Year
X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54110001	2017.09.29	1 Year
Signal Analyzer	Agilent	N9020A	MY48030494	2017.09.29	1 Year

### 3 Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The test procedure used was ANSI Standard ANSI C63.4:2014 using a 50 u H LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25°C with a humidity of 58%.

**RADIATION INTERFERENCE:** The test procedure used was ANSI Standard ANSI C63.4:2014 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3MHz above 1 GHz. The ambient temperature of the EUT was 25°C with a humidity of 58%.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz) METER READING + ACF + CABLE = FS

33.20 dBuV + 10.36 dB + 0.9 dB= 44.46 dBuV/m @ 3m

ANSI STANDARD ANSI C63.4:2014 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard ANSI C63.4:2014 10.1.7 with the EUT 40 cm from the vertical ground wall.

## 4 Summary of Measurement

### 4.1 Summary of test result

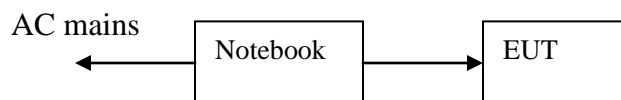
Test procedures according to the technical standards:

§ 15.407, KDB 789033 D02

Test Item	Test Requirement	Standards Paragraph	Result
Spurious Emission	FCC PART 15 : 2015	Section 15.407(b)&15.209	Compliance
Conduction Emission	FCC PART 15 : 2015	Section 15.207	Compliance
Bandwidth Test	FCC PART 15 : 2015	Section 15.407(a)	Compliance
Peak Power	FCC PART 15 : 2015	Section 15.407(a)	Compliance
Power Density	FCC PART 15 : 2015	Section 15.407(a)	Compliance
Undesirable emission	FCC PART 15 : 2015	Section 15.407(b)	Compliance
Antenna Requirement	FCC PART 15 : 2015	Section 15.203	Compliance

Note: The EUT has been tested as an independent unit. And Continual Transmitting in maximum power (The adapter be used during Test)

### 4.2 Test connection



### 4.3 Assistant equipment used for test

Description	:	Notebook
Manufacturer	:	Acer
Model No.	:	ZQT



#### 4.4 Test mode and channel

Tested mode, channel, and data rate information			
Dutycycle :100%			
Keeping TX mode			
Mode	Data rate (Mbps) see Note	Channel	Frequency (MHz)
IEEE 802.11n HT20 with 5.2G	6.5	CH36	5180
	6.5	CH40	5200
	6.5	CH48	5240
IEEE 802.11n HT40 with 5.2G	13.5	CH38	5190
	13.5	CH46	5230
IEEE 802.11a with 5.2G	6	CH36	5180
	6	CH40	5200
	6	CH48	5240
IEEE 802.11 n/HT20 with 5.8G	6.5	CH149	5745
	6.5	CH157	5785
	6.5	CH165	5825
IEEE 802.11 n/HT40 with 5.8G	13.5	CH151	5755
	13.5	CH159	5795
IEEE 802.11a with 5.8G	6	CH149	5745
	6	CH157	5785
	6	CH165	5825
Note:1. According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test.			
2. 802.11a/nH20/nH40 tested SISO mode, found ANT0 is the worst case and only reported			

## 4.5 Channel list

For IEEE 802.11 a with 5.2G			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH36	5180	CH48	5220
CH40	5200	CH48	5240

For IEEE 802.11 n/HT20 with 5.2G			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH36	5180	CH44	5220
CH40	5200	CH48	5240

For IEEE 802.11 n/HT40 with 5.2G			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH38	5190	CH46	5230

For IEEE 802.11 a with 5.8G					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH149	5745	CH157	5785	CH165	5825
CH153	5765	CH161	5805		

For IEEE 802.11n/HT20 with 5.8G					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH149	5745	CH157	5785	CH165	5825
CH153	5765	CH161	5805		

For IEEE 802.11n/HT40 with 5.8G					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH151	5755	CH159	5795		

#### 4.6 Test Conditions

Temperature range	21-25°C
Humidity range	40-75%
Pressure range	86-106kPa

#### 4.7 Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.71dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.90 dB	Polarize: V
	3.92dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.26 dB	Polarize: H
	4.28 dB	Polarize: V
Uncertainty for conducted RF Power	0.16dB	

## 5 Spurious Emission

### 5.1 Radiation Emission

#### 5.1.1 Radiation Emission Limits(15.209)

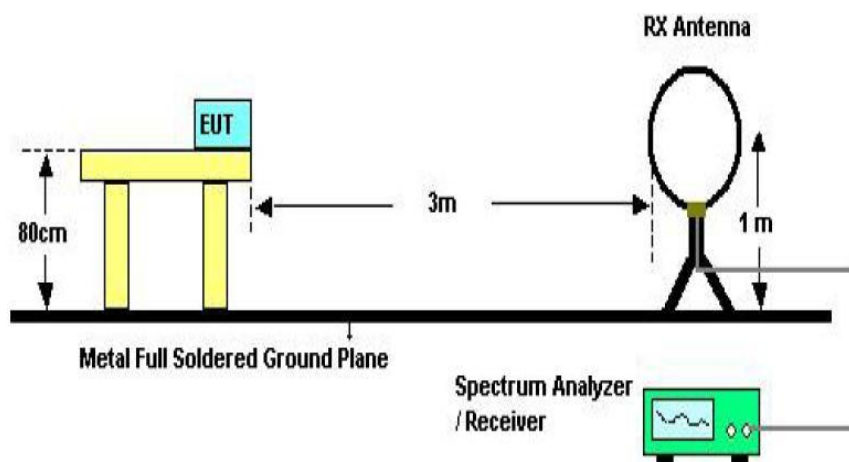
Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

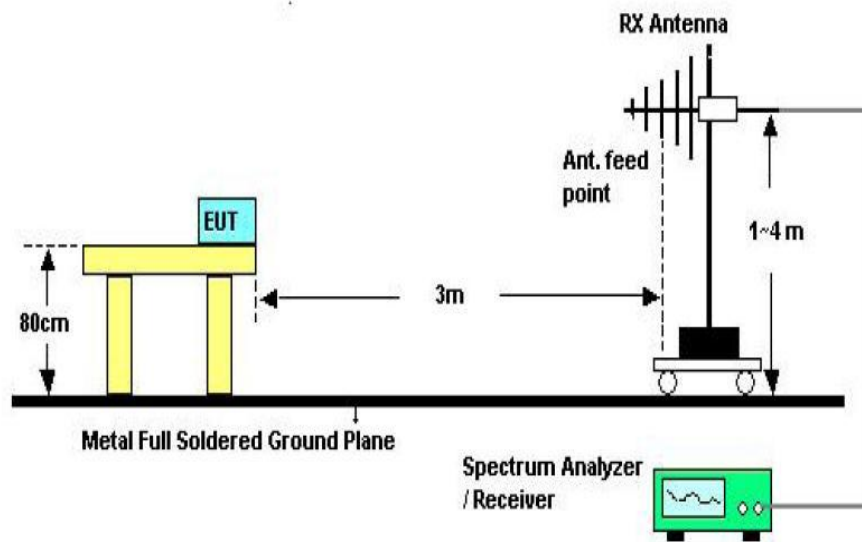
**NOTE:**

- The tighter limit applies at the band edges.
- Emission Level(dB uV/m)=20log Emission Level(Uv/m)

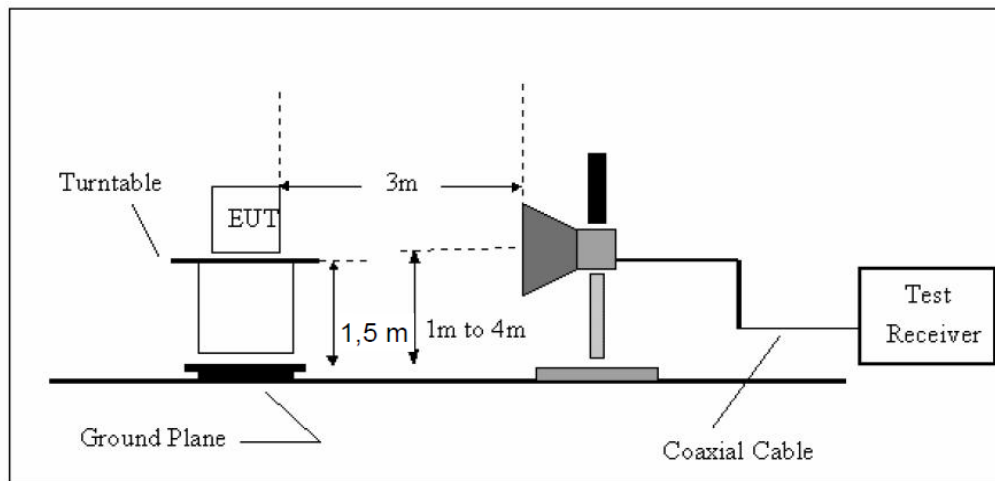
### 5.2 Test Setup



Below 30MHz Test Setup



Above 30MHz Test Setup



Above 1GHz Test Setup

### 5.3 Test Procedure

- a) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1GHz, The EUT was placed on a rotating 0.8 m high above ground, The table was rotated 360 degrees to determine the position of the highest radiation
- b) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set of make measurement.
- c) The initial step in collecting conducted emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significant Peaks are then marked. and then Qusia Peak Detector mode premeasured
- d) If Peak value comply with QP limit Below 1GHz. The EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.
- e) For the actual test configuration, please see the test setup photo.

#### 5.3.1 Test Equipment Setting For emission test Result

9KHz~150KHz	RBW 200Hz	VBW 1KHz
150KHz~30MHz	RBW 9KHz	VBW 30KHz
30MHz~1GHz	RBW 120KHz	VBW 300KHz
Above 1GHz	RBW 1MHz	VBW 3MHz

#### 5.3.2 Test Condition

Continual Transmitting in maximum power.

### 5.4 Test Result

We have scanned the 9KHz from 40GHz to the EUT.  
Detailed information please see the following page.

From 9KHz to 30MHz:	Conclusion: PASS
From 25GHz to 40GHz	Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Site LAB 966-2 Chamber

Polarization: **Vertical**

Temperature: 23.8

Limit: FCC Part 15 Class B Radiation

Power: DC 5V

Humidity: 56 %

EUT: 300M 2.4G&amp;5G wireless adpter

Distance:

M/N: SC-1

Mode:Working

Note:

Engineer Signature:

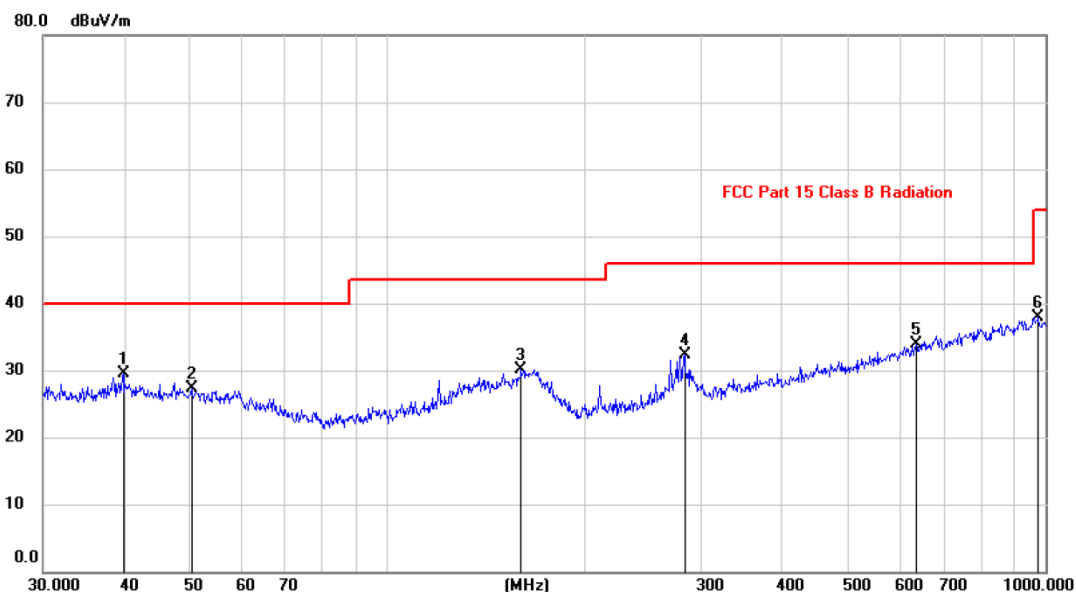
**Radiated Emission Measurement**

File :SC-1

Data :#1

Date: 2017/5/10

Time: 20:50:05



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	*	39.7146	15.29	14.23	29.52	40.00	-10.48	peak			
2		50.4089	13.62	13.68	27.30	40.00	-12.70	peak			
3		159.7844	15.60	14.58	30.18	43.50	-13.32	peak			
4		283.9791	19.24	13.03	32.27	46.00	-13.73	peak			
5		636.1340	13.87	19.95	33.82	46.00	-12.18	peak			
6		975.7529	14.30	23.65	37.95	54.00	-16.05	peak			

Site LAB 966-2 Chamber

Polarization: **Horizontal**

Temperature: 23.8

Limit: FCC Part 15 Class B Radiation

Power: DC 5V

Humidity: 56 %

EUT: 300M 2.4G&amp;5G wireless adpter

Distance:

M/N: SC-1

Mode:Working

Note:

Engineer Signature:

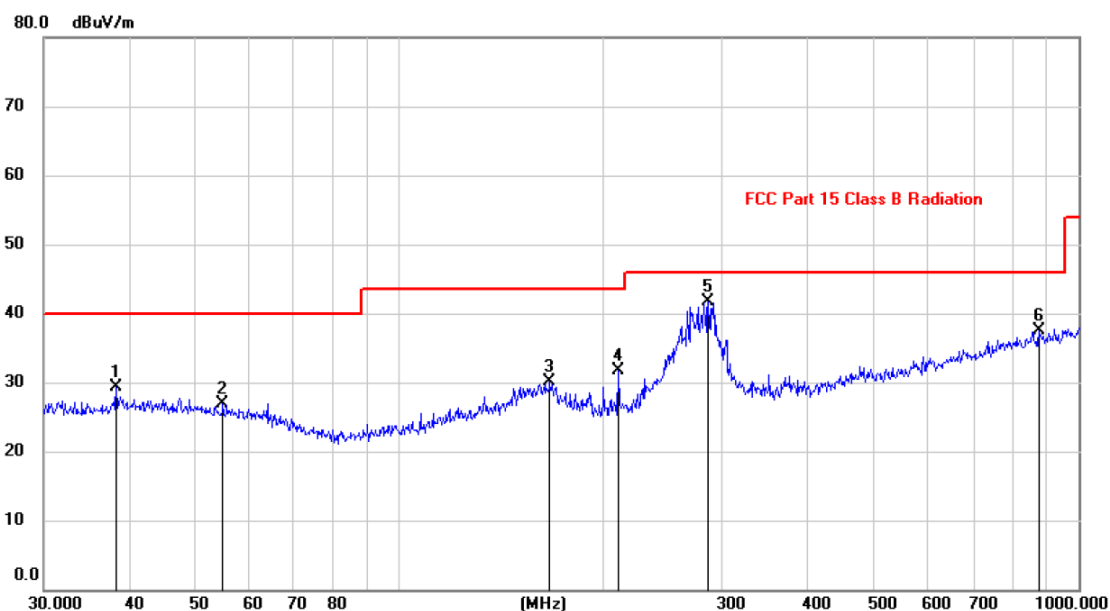
**Radiated Emission Measurement**

File :SC-1

Data :#2

Date: 2017/5/10

Time: 20:31:57



No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	38.3462	15.36	13.95	29.31	40.00	-10.69	peak		
2	55.0274	13.66	13.25	26.91	40.00	-13.09	peak		
3	167.2368	16.18	14.00	30.18	43.50	-13.32	peak		
4	210.0482	20.93	10.69	31.62	43.50	-11.88	peak		
5 *	284.9767	28.72	13.04	41.76	46.00	-4.24	peak		
6	875.2470	14.72	22.83	37.55	46.00	-8.45	peak		

Remark1: All modes and channels have been tested and only worst data of 802.11a, 5180MHz are listed in this report.



From 1G-25GHz  
IEEE 802.11a with 5.2G

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	V	46.26	---	2.36	48.62	---	74	/	25.38	Peak
15540	V	45.91	---	4.52	50.43	---	74	/	23.57	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	H	48.19	---	2.36	50.55	---	74	/	23.45	Peak
15540	H	46.91	---	4.52	51.43	---	74	/	22.57	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	V	47.32	---	2.36	49.68	---	74	/	24.32	Peak
15600	V	46.37	---	4.52	50.89	---	74	/	23.11	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	H	47.90	---	2.36	50.26	---	74	/	23.74	Peak
15600	H	47.90	---	4.52	52.42	---	74	/	21.58	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	V	46.85	---	2.36	49.21	---	74	/	24.79	Peak
15720	V	47.16	---	4.52	51.68	---	74	/	22.32	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	H	47.01	---	2.36	49.37	---	74	/	24.63	Peak
15720	H	27.72	---	4.52	32.24	---	54	/	21.76	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT20 with 5.2G

EUT		300M 2.4G&5G wireless adapter			Model Name		SC-1			
Temperature		26°C			Relative Humidity		56%			
Pressure		960hPa			Test voltage		DC 5V from USB Port			
Test Mode		TX    Low								
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/ m)	AV Reading (dBuV/ m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remar k
					Peak (dBuV/m)	AV (dBuV/m)				
10360	V	47.96	---	2.36	50.32	---	74	/	23.68	Peak
15540	V	46.80	---	4.52	51.32	---	74	/	22.68	Peak
N/A										

EUT	300M 2.4G&5G wireless adapter	Model Name	SC-1
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V from USB Port
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	H	48.17	---	2.36	50.53	---	74	/	23.47	Peak
15540	H	47.90	---	4.52	52.42	---	74	/	21.58	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	V	47.01	---	2.36	49.37	---	74	/	24.63	Peak
15600	V	47.42	---	4.52	51.94	---	74	/	22.06	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	H	47.71	---	2.36	50.07	---	74	/	23.93	Peak
15600	H	48.24	---	4.52	52.76	---	74	/	21.24	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	V	48.16	---	2.36	50.52	---	74	/	23.48	Peak
15720	V	47.47	---	4.52	51.99	---	74	/	22.01	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	H	48.07	---	2.36	50.43	---	74	/	23.57	Peak
15720	H	47.80	---	4.52	52.32	---	74	/	21.68	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT40 with 5.2G

EUT		300M 2.4G&5G wireless adapter			Model Name		SC-1			
Temperature		26°C			Relative Humidity		56%			
Pressure		960hPa			Test voltage		DC 5V from USB Port			
Test Mode		TX    Low								
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/ m)	AV Reading (dBuV/ m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remarks
					Peak (dBuV/m)	AV (dBuV/m)				
10380	V	48.01	---	2.36	50.37	---	74	/	23.63	Peak
15570	V	47.91	---	4.52	52.43	---	74	/	21.57	Peak
N/A										

EUT	300M 2.4G&5G wireless adapter	Model Name	SC-1
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V from USB Port
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10380	H	48.07	---	2.36	50.43	---	74	/	23.57	Peak
15570	H	47.80	---	4.52	52.32	---	74	/	21.68	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	V	47.96	---	2.36	50.32	---	74	/	23.68	Peak
15690	V	47.72	---	4.52	52.24	---	74	/	21.76	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	H	48.48	---	2.36	50.84	---	74	/	23.16	Peak
15690	H	48.03	---	4.52	52.55	---	74	/	21.45	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



From 1G-25GHz:  
IEEE 802.11a with 5.8G

EUT		300M 2.4G&5G wireless adapter			Model Name		SC-1			
Temperature		26°C			Relative Humidity		56%			
Pressure		960hPa			Test voltage		DC 5V from USB Port			
Test Mode		TX    Low								
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/ m)	AV Reading (dBuV/ m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	V	48.17	---	2.36	50.53	---	74	/	23.47	Peak
17235	V	47.90	---	4.52	52.42	---	74	/	21.58	Peak
N/A										

EUT	300M 2.4G&5G wireless adapter	Model Name	SC-1
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V from USB Port
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	H	48.40	---	2.36	50.76	---	74	/	23.24	Peak
17235	H	47.72	---	4.52	52.24	---	74	/	21.76	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	V	47.96	---	2.36	50.32	---	74	/	23.68	Peak
17355	V	47.72	---	4.52	52.24	---	74	/	21.76	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	H	48.39	---	2.36	50.75	---	74	/	23.25	Peak
17355	H	47.79	---	4.52	52.31	---	74	/	21.69	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	V	47.81	---	2.36	50.17	---	74	/	23.83	Peak
17475	V	48.13	---	4.52	52.65	---	74	/	21.35	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	H	48.56	---	2.36	50.92	---	74	/	23.08	Peak
17475	H	28.15	---	4.52	32.67	---	54	/	21.33	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT20 with 5.8G

EUT		300M 2.4G&5G wireless adapter			Model Name		SC-1			
Temperature		26°C			Relative Humidity		56%			
Pressure		960hPa			Test voltage		DC 5V from USB Port			
Test Mode		TX    Low								
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/ m)	AV Reading (dBuV/ m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remar k
					Peak (dBuV/m)	AV (dBuV/m)				
11490	V	48.38	---	2.36	50.74	---	74	/	23.26	Peak
17235	V	48.12	---	4.52	52.64	---	74	/	21.36	Peak
N/A										

EUT	300M 2.4G&5G wireless adapter	Model Name	SC-1
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V from USB Port
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	H	49.47	---	2.36	51.83	---	74	/	22.17	Peak
17235	H	48.22	---	4.52	52.74	---	74	/	21.26	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	V	48.39	---	2.36	50.75	---	74	/	23.25	Peak
17355	V	48.02	---	4.52	52.54	---	74	/	21.46	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	H	48.50	---	2.36	50.86	---	74	/	23.14	Peak
17355	H	47.65	---	4.52	52.17	---	74	/	21.83	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	V	48.29	---	2.36	50.65	---	74	/	23.35	Peak
17475	V	47.75	---	4.52	52.27	---	74	/	21.73	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	H	48.48	---	2.36	50.84	---	74	/	23.16	Peak
17475	H	48.21	---	4.52	52.73	---	74	/	21.27	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.  
Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11n/HT40 with 5.8G

EUT		300M 2.4G&5G wireless adapter			Model Name		SC-1			
Temperature		26°C			Relative Humidity		56%			
Pressure		960hPa			Test voltage		DC 5V from USB Port			
Test Mode		TX Low								
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/ m)	AV Reading (dBuV/ m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11510	V	48.17	---	2.36	50.53	---	74	/	23.47	Peak
17265	V	48.29	---	4.52	52.81	---	74	/	21.19	Peak
N/A										

EUT	300M 2.4G&5G wireless adapter	Model Name	SC-1
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V from USB Port
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11510	H	49.38	---	2.36	51.74	---	74	/	22.26	Peak
17265	H	48.14	---	4.52	52.66	---	74	/	21.34	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11590	V	49.59	---	2.36	51.95	---	74	/	22.05	Peak
17385	V	48.09	---	4.52	52.61	---	74	/	21.39	Peak
N/A										

<b>EUT</b>	300M 2.4G&5G wireless adapter	<b>Model Name</b>	SC-1
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	56%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 5V from USB Port
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11590	H	49.21	---	2.36	51.57	---	74	/	22.43	Peak
17385	H	48.21	---	4.52	52.73	---	74	/	21.27	Peak
N/A										

**Notes:** AV Means AV detector test data, Peak Means Peak detector test data.  
Emissions attenuated more than 20 dB below the permissible value are not reported.



## 6 POWER LINE CONDUCTED EMISSION

### 6.1 Conducted Emission Limits(15.207)

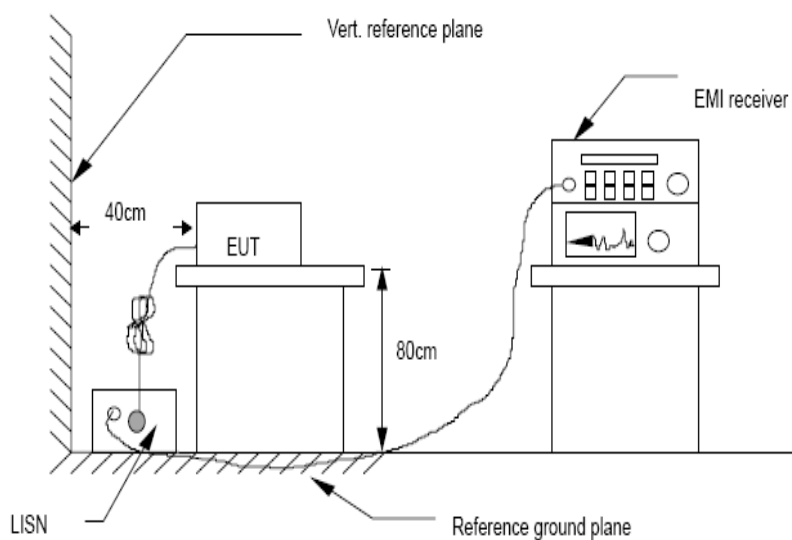
Frequency MHz	Limits dB( $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 -0.50	66 -56*	56 - 46*
0.50 -5.00	56	46
5.00 -30.00	60	50

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.The limit decreases in line with the logarithm of the frequency in the rang of 0.15 to 0.50 MHz.

### 6.2 Test Setup



### 6.3 Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4:2014 on Conducted Emission Measurement. The bandwidth of test receiver is set at 9 kHz.

### 6.4 Test Results

TX MODE

Worse case is reported only

**PASS**

Detailed information please see the following page.

Site LAB  
 Limit: FCC Part 15 CLASS B QP  
 EUT:  
 M/N: SC-1  
 Mode: Working  
 Note:

Phase: **L1**  
 Power: DC 5V

Temperature: 24.2  
 Humidity: 53 %

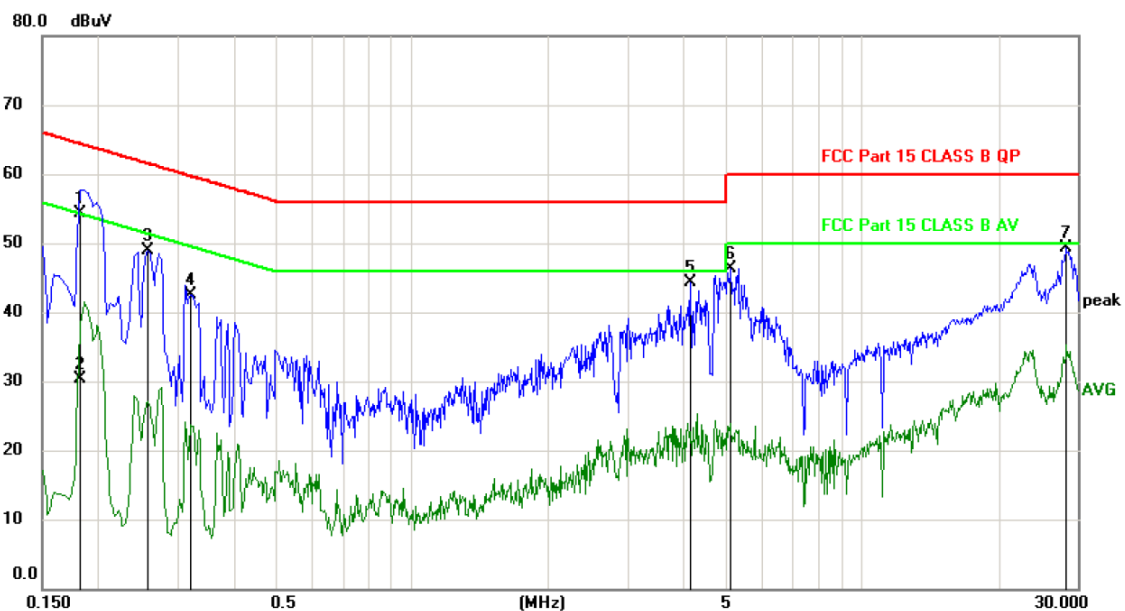
### Conducted Emission Measurement

File :U0335

Data :#3

Date: 2017-5-10

Time: 15:39:10



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1815	44.66	9.74	54.40	64.42	-10.02	QP	
2		0.1815	20.63	9.74	30.37	54.42	-24.05	AVG	
3		0.2580	39.17	9.76	48.93	61.50	-12.57	peak	
4		0.3209	32.71	9.77	42.48	59.68	-17.20	peak	
5		4.1550	34.15	10.15	44.30	56.00	-11.70	peak	
6		5.0910	36.13	10.19	46.32	60.00	-13.68	peak	
7		28.2930	38.30	11.03	49.33	60.00	-10.67	peak	

Site LAB

Phase: **N**

Temperature: 24.2

Limit: FCC Part 15 CLASS B QP

Power: DC 5V

Humidity: 53 %

EUT:

M/N: SC-1

Mode: Working

Note:

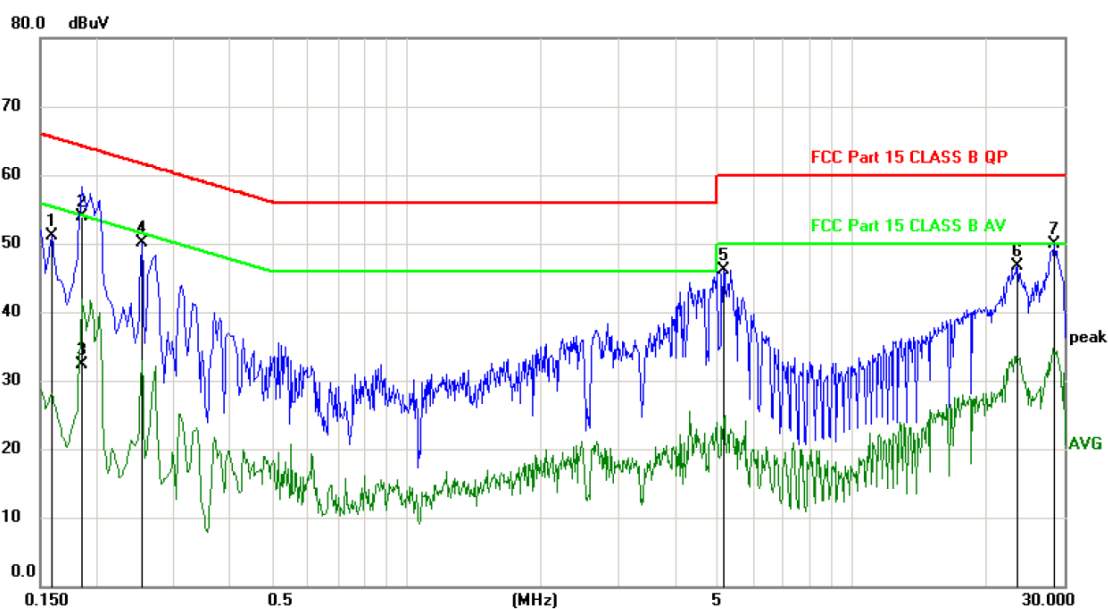
**Conducted Emission Measurement**

File :U0335

Data :#4

Date: 2017-5-10

Time: 15:41:35



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1590	41.30	9.73	51.03	65.52	-14.49	peak	
2		0.1860	44.16	9.74	53.90	64.21	-10.31	QP	
3		0.1860	22.54	9.74	32.28	54.21	-21.93	AVG	
4		0.2535	40.37	9.76	50.13	61.64	-11.51	peak	
5		5.1450	35.97	10.20	46.17	60.00	-13.83	peak	
6		23.5365	35.95	10.70	46.65	60.00	-13.35	peak	
7	*	28.5270	38.91	11.06	49.97	60.00	-10.03	peak	

## 7 Conducted Maximum Output Power

### 7.1 Test limit

#### Band 5150-5250MHz

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### Band 5725-5850MHz

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band

### 7.2 Test Procedure

Details see the KDB789033 Meas Guidance

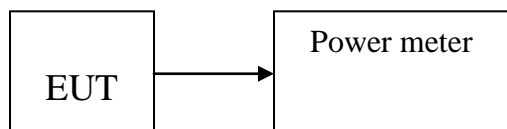
7.2.1 Place the EUT on the table and set it in transmitting mode.

7.2.2 Connected the EUT's antenna port to peak power meter by 20dB attenuator.

7.2.3 Measure out each mode and each bands peak output power of EUT.

Note: The cable loss and attenuator loss were offset into measure device as amplitude offset. Details see the KDB789033 DTS Meas Guidance

### 7.3 Test Setup



### 7.4 Test Results

# PASS

Detailed information please see the following page.

## 5.2G Band

EUT: 300M 2.4G&5G wireless adapter M/N: SC-1					
Test date: 2017-5-5		Test site: RF site		Tested by: Simple Guan	
Mode	Frequency (MHz)	PK Output power(dBm)			Limit (dBm)
		ANT0	ANT1	Total	
IEEE 802.11 a with 5.2G	5180	7.45	7.60	N/A	30
	5200	7.36	7.70	N/A	30
	5240	7.23	7.88	N/A	30
IEEE 802.11 n/HT20 with 5.2G	5180	6.69	7.08	N/A	30
	5200	6.71	7.58	N/A	30
	5240	7.15	7.37	N/A	30
IEEE 802.11 n/HT40 with 5.2G	5190	7.12	8.00	N/A	30
	5230	7.32	7.79	N/A	30
Conclusion: PASS					

## 5.8G Band

EUT: 300M 2.4G&5G wireless adapter M/N: SC-1					
Test date: 2017-5-5		Test site: RF site		Tested by: Simple Guan	
Mode	Frequency (MHz)	PK Output power(dBm)			Limit (dBm)
		ANT0	ANT1	Total	
IEEE 802.11 a with 5.8G	5745	7.36	7.52	N/A	30
	5785	7.27	7.35	N/A	30
	5825	6.52	7.49	N/A	30
IEEE 802.11 n/HT20 with 5.8G	5745	6.37	6.71	N/A	30
	5785	6.18	6.46	N/A	30
	5825	6.64	6.81	N/A	30
IEEE 802.11 n/HT40 with 5.8G	5755	6.16	6.34	N/A	30
	5795	6.24	6.31	N/A	30
Conclusion: PASS					

## 8 PEAK POWER SPECTRAL DENSITY

### 8.1 Test limit

Band 5150-5250MHz

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Band 5725-5850MHz

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band

### 8.2 Method of measurement

Details see the KDB789033 DTS Meas Guidance

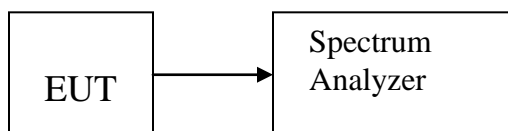
8.2.1 Place the EUT on the table and set it in transmitting mode.

8.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

8.2.3 Record the max reading.

8.2.4 Repeat the above procedure until the measurements for all frequencies are completed.

### 8.3 Test Setup





## 8.4 Test Results

PASS.

Detailed information please see the following page.

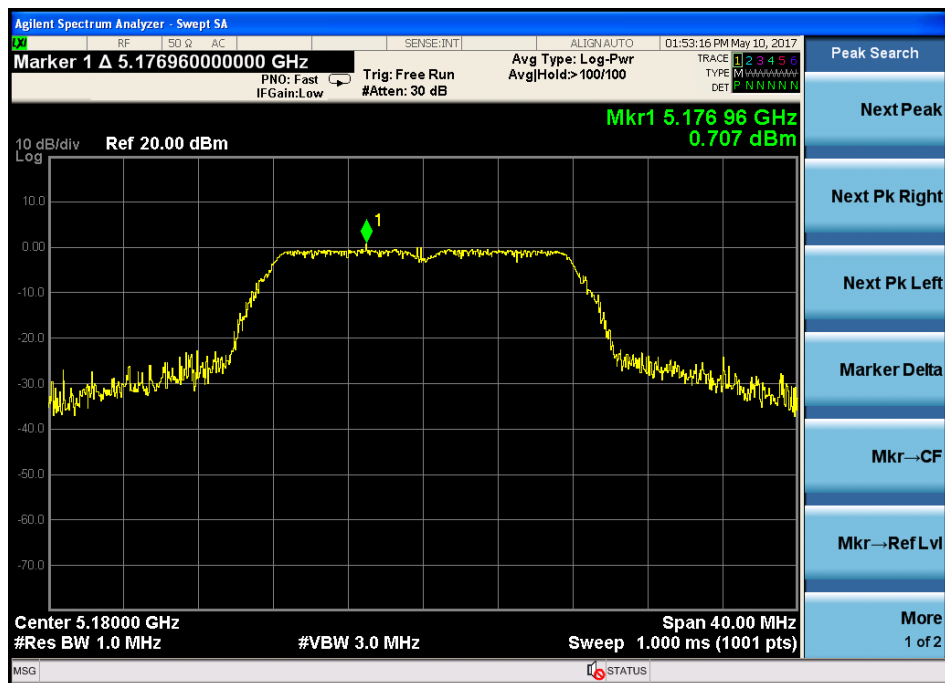
### 5.2G Band

EUT: 300M 2.4G&5G wireless adapter M/N: SC-1					
Test date: 2017-5-5		Test site: RF site		Tested by: Simple Guan	
Mode	Frequency (MHz)	Power Density(dBm)			Limit (dBm)
		ANT0	ANT1	Total	
IEEE 802.11 a with 5.2G	5180	0.707	-0.049	N/A	8
	5200	-0.366	-0.599	N/A	8
	5240	-0.509	-1.112	N/A	8
IEEE 802.11 n/HT20 with 5.2G	5180	-0.276	0.158	N/A	8
	5200	-0.213	-1.101	N/A	8
	5240	-1.575	-0.796	N/A	8
IEEE 802.11 n/HT40 with 5.2G	5190	-3.004	-2.474	N/A	8
	5230	-3.624	-2.733	N/A	8
Conclusion: PASS					

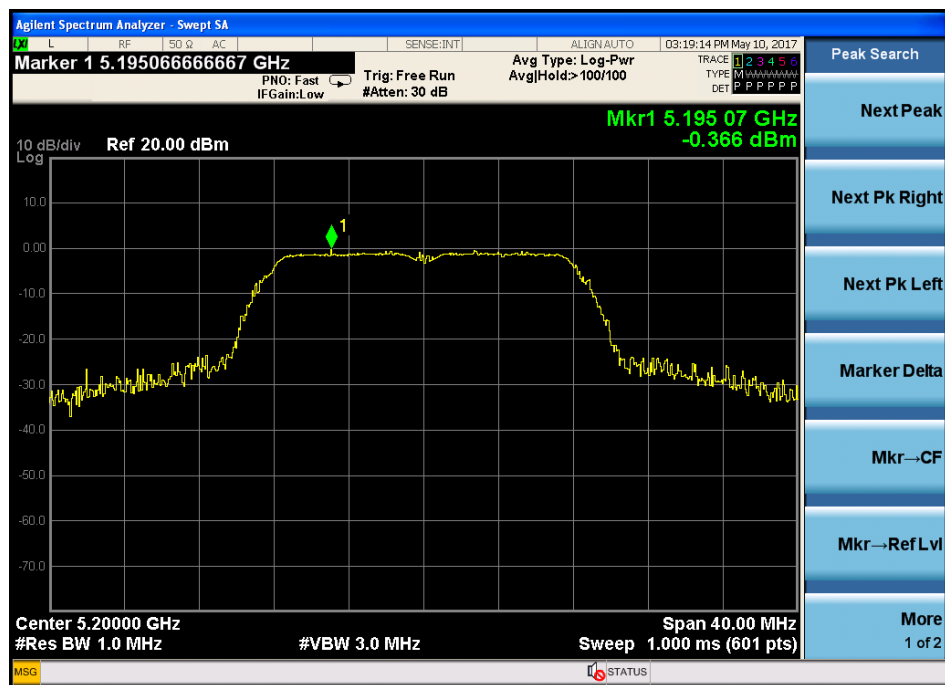
## 5.8G Band

EUT: 300M 2.4G&5G wireless adapter M/N: SC-1					
Test date: 2017-5-5		Test site: RF site		Tested by: Simple Guan	
Mode	Frequency (MHz)	Power Density			Limit (dBm)
		ANT0	ANT1	Total	
IEEE 802.11 a with 5.8G	5745	-1.442	-0.424	N/A	8
	5785	-0.982	-0.117	N/A	8
	5825	-0.834	0.507	N/A	8
IEEE 802.11 n/HT20 with 5.8G	5745	-1.586	-0.678	N/A	8
	5785	-1.389	-0.346	N/A	8
	5825	-0.014	-0.771	N/A	8
IEEE 802.11 n/HT40 with 5.8G	5755	-3.628	-3.108	N/A	8
	5795	-3.677	-2.037	N/A	8
Conclusion: PASS					

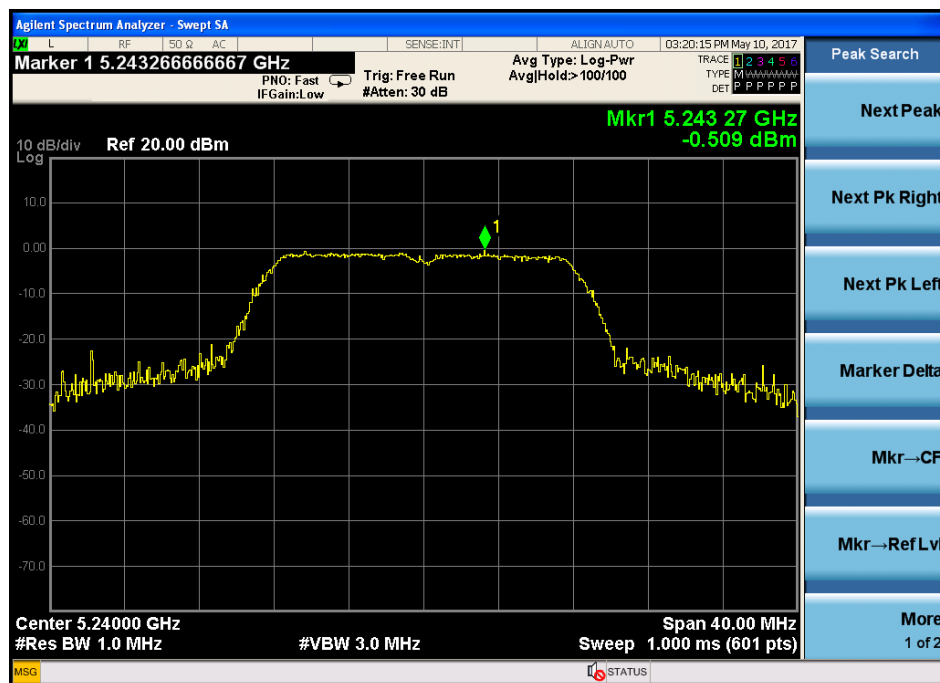
ANT 0  
5.2G Band:  
CH Low :



CH Mid:

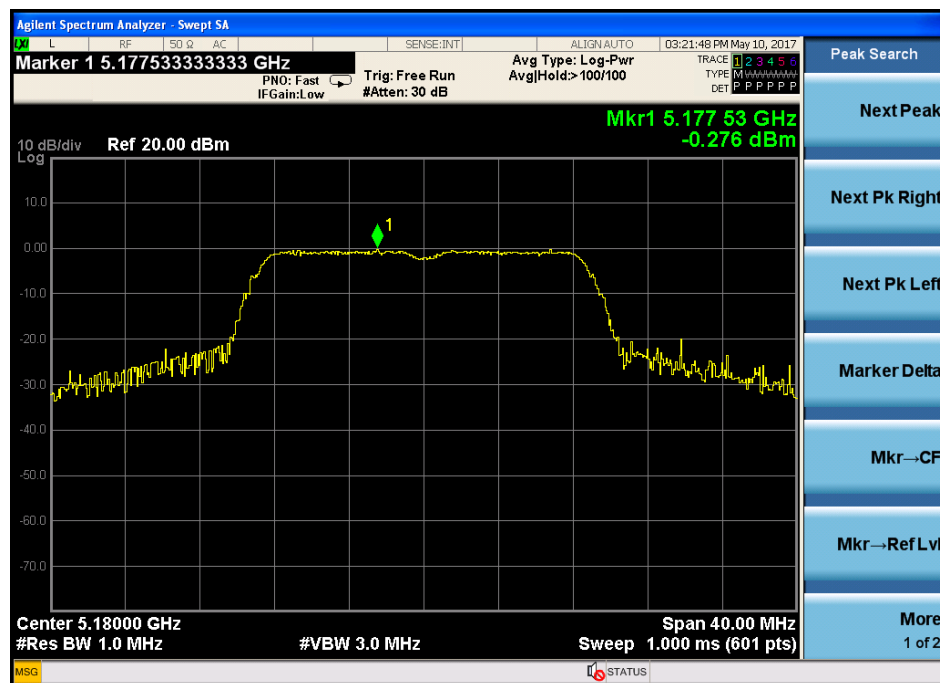


CH Hig:

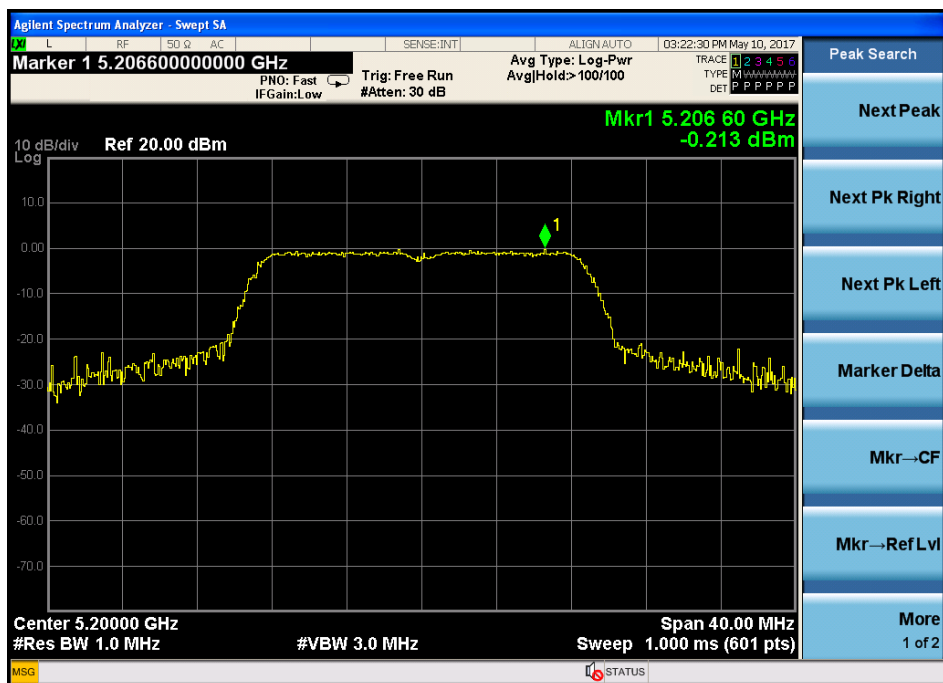


IEEE 802.11n HT20:

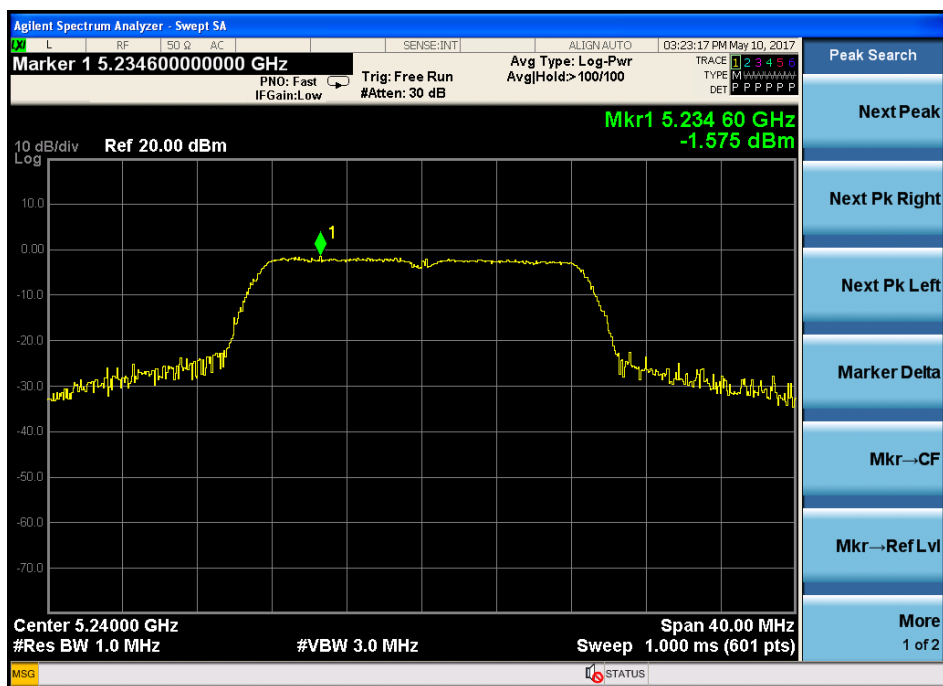
CH Low :



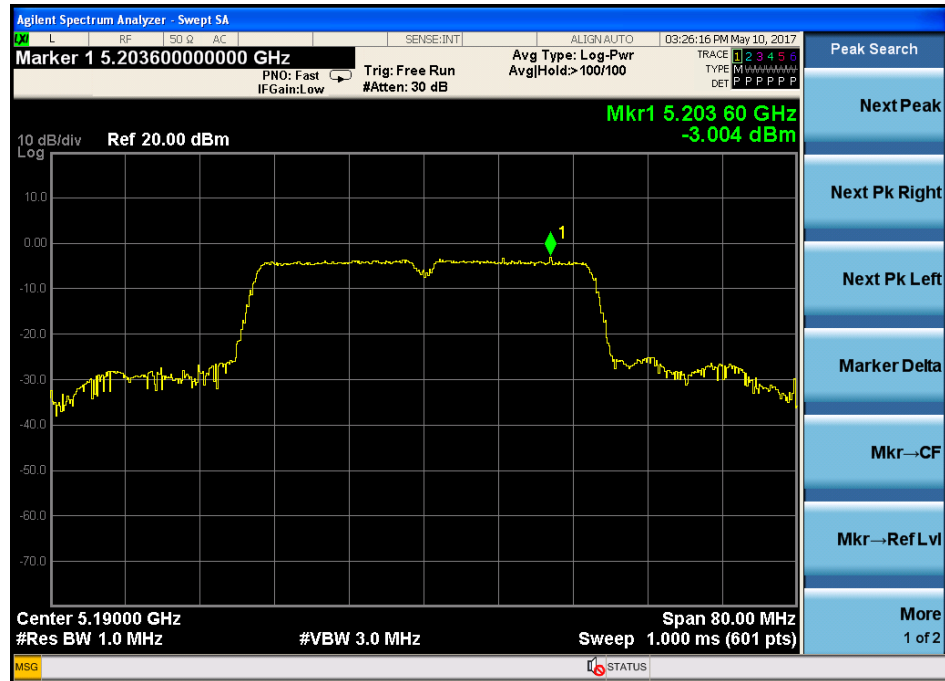
CH Mid:



CH Hig:



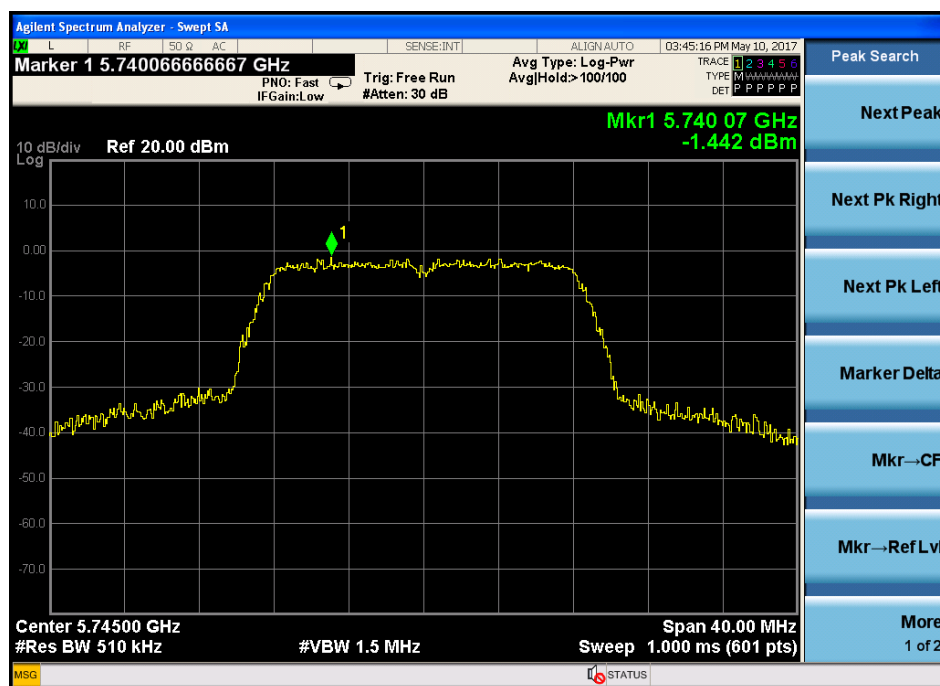
IEEE 802.11n HT40:  
CH Low :



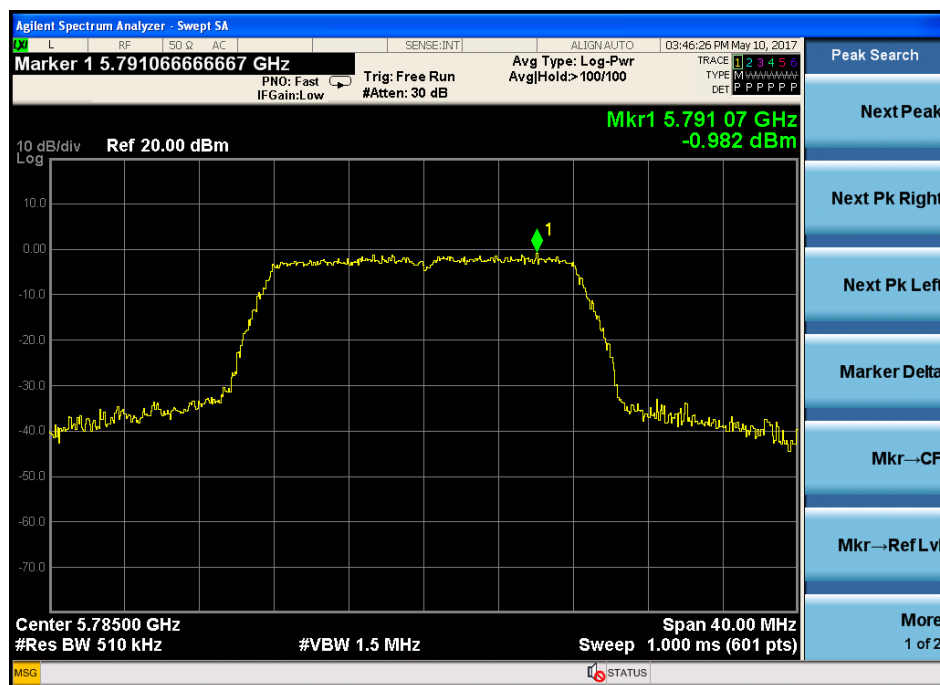
CH Hig:



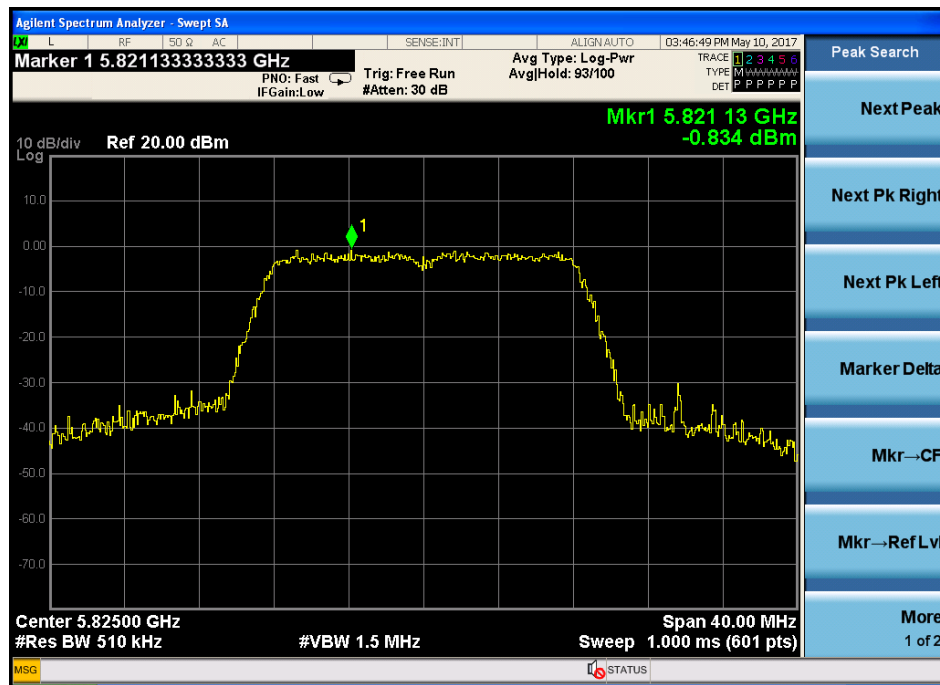
5.8G Band  
IEEE 802.11a :  
CH Low :



CH Mid:

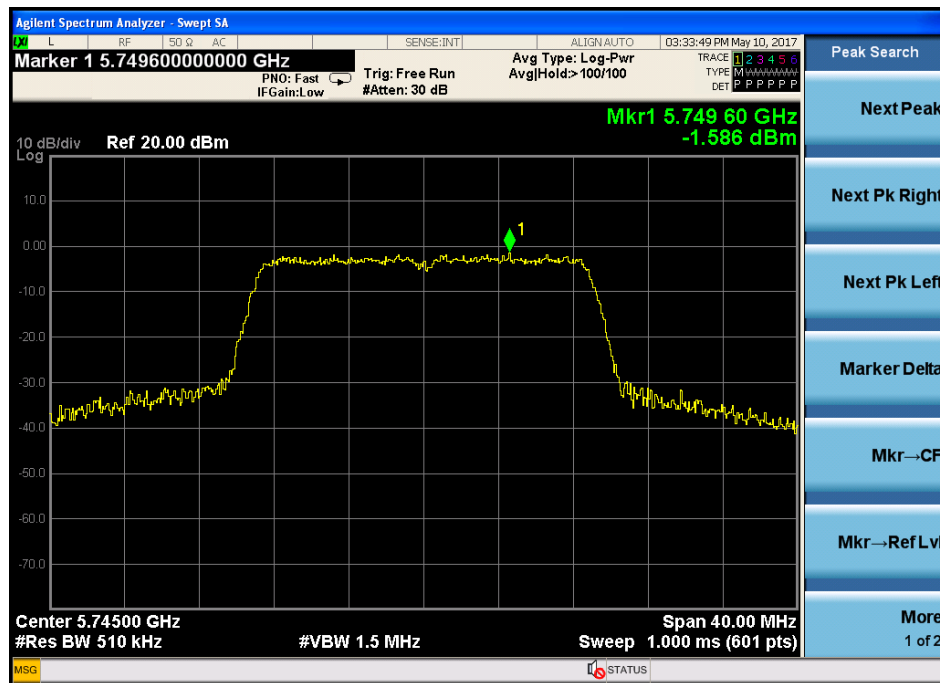


CH Hig:



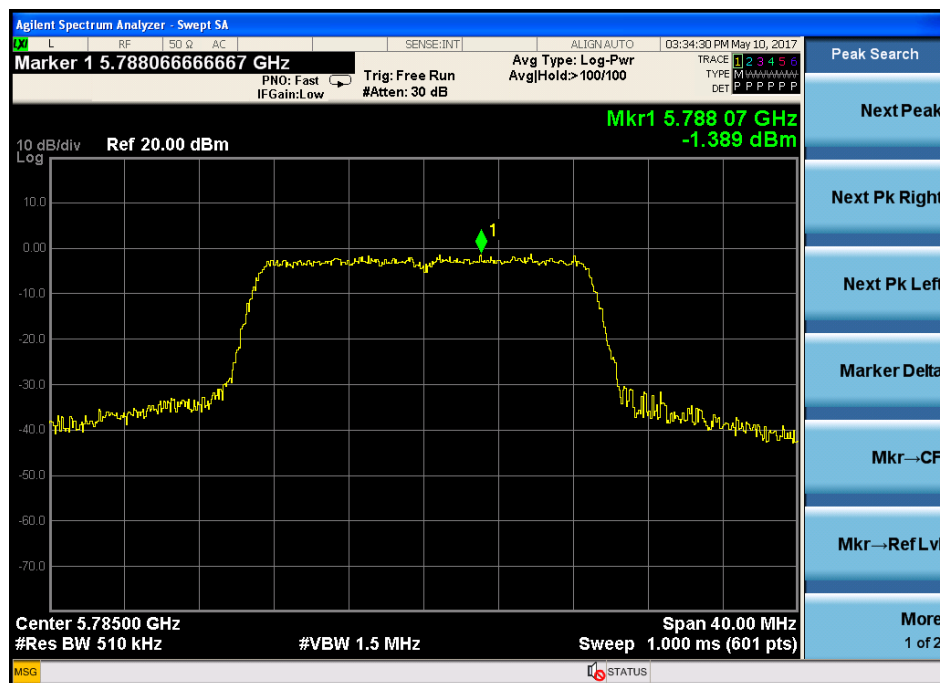
IEEE 802.11n HT20 :

CH Low :

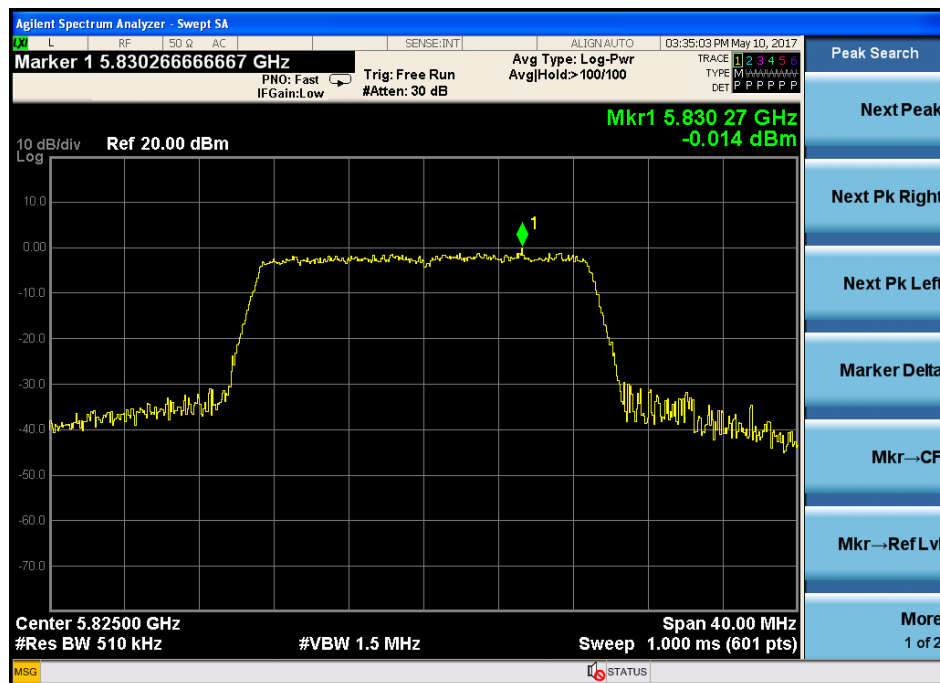




CH Mid:

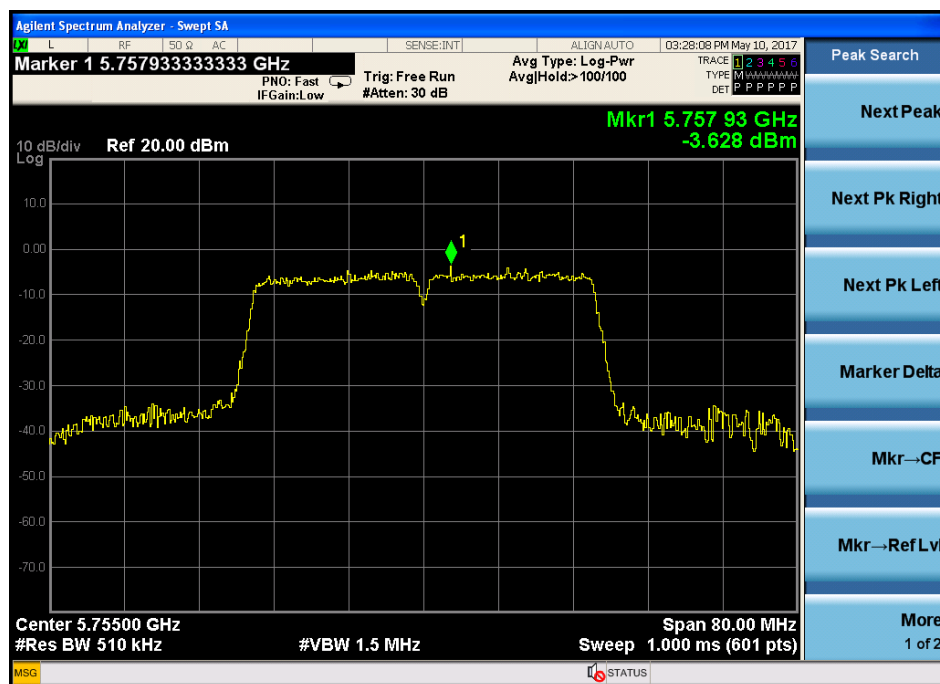


CH Hig:

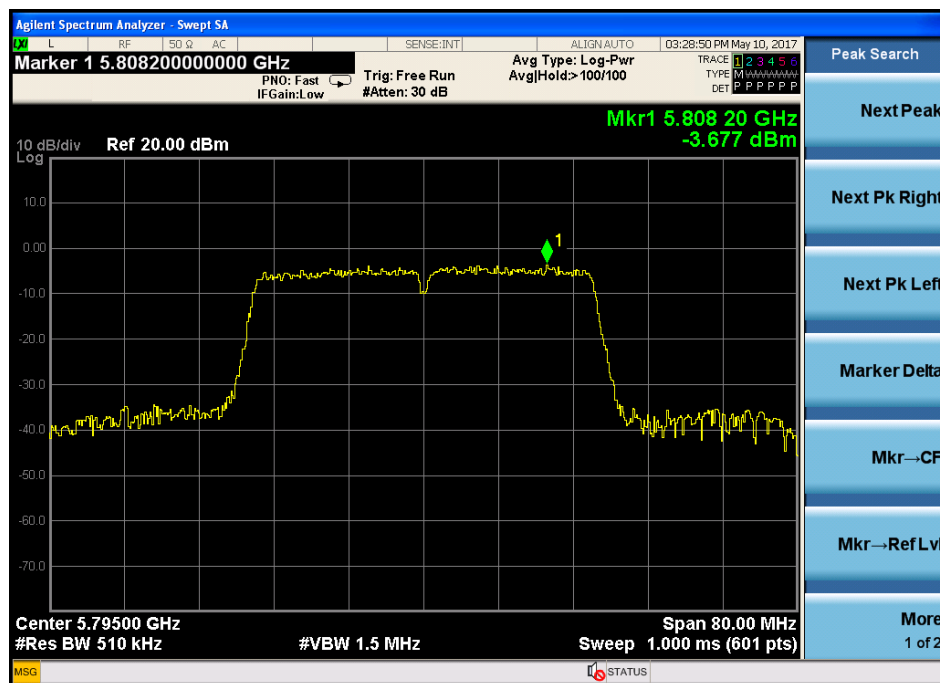


IEEE 802.11n HT40 :

CH Low :

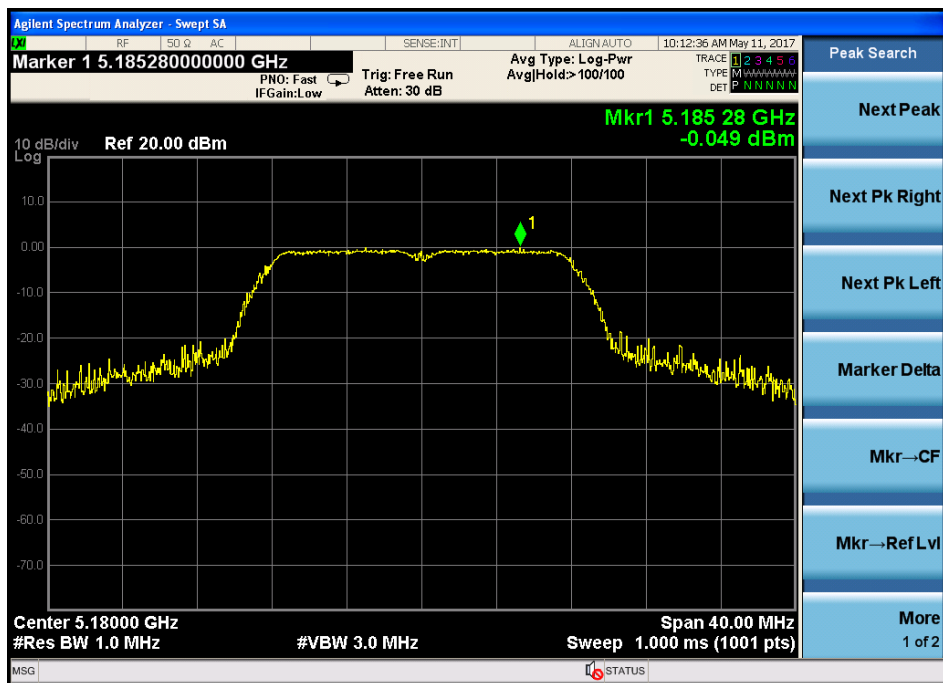


CH Hig:

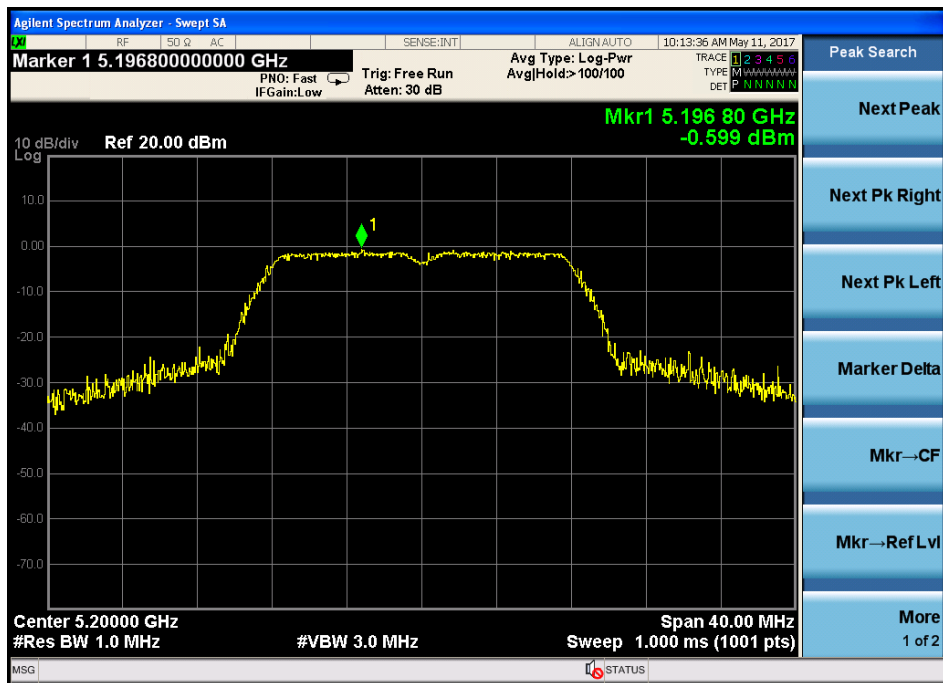


Remark: A RBW of 500KHz can not be set for the Spectrum Analyzer, and the results of RBW 510KHz are worse than RBW of 500KHz, therefore, if results of the RBW 510KHz complies with limit, results of RBW 500KHz are deemed to comply with limit

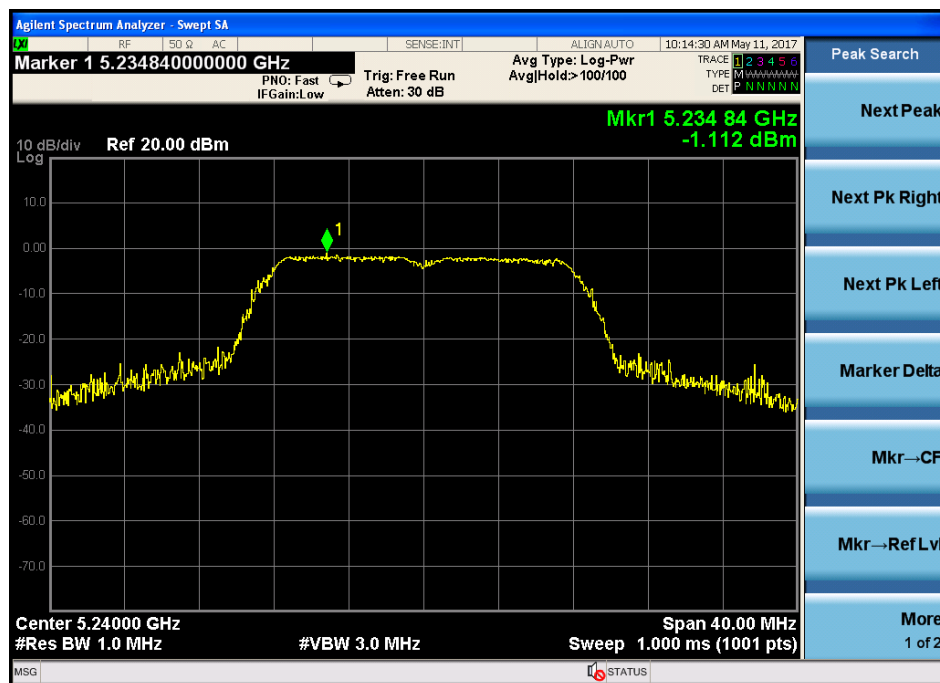
ANT 1  
5.2G Band:  
CH Low :



CH Mid:

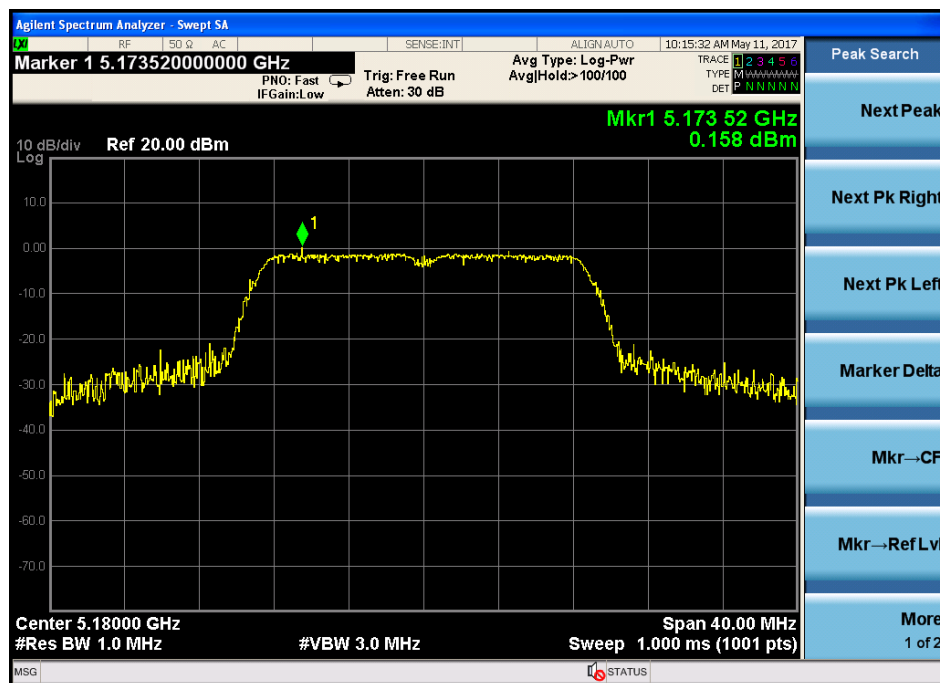


CH Hig:

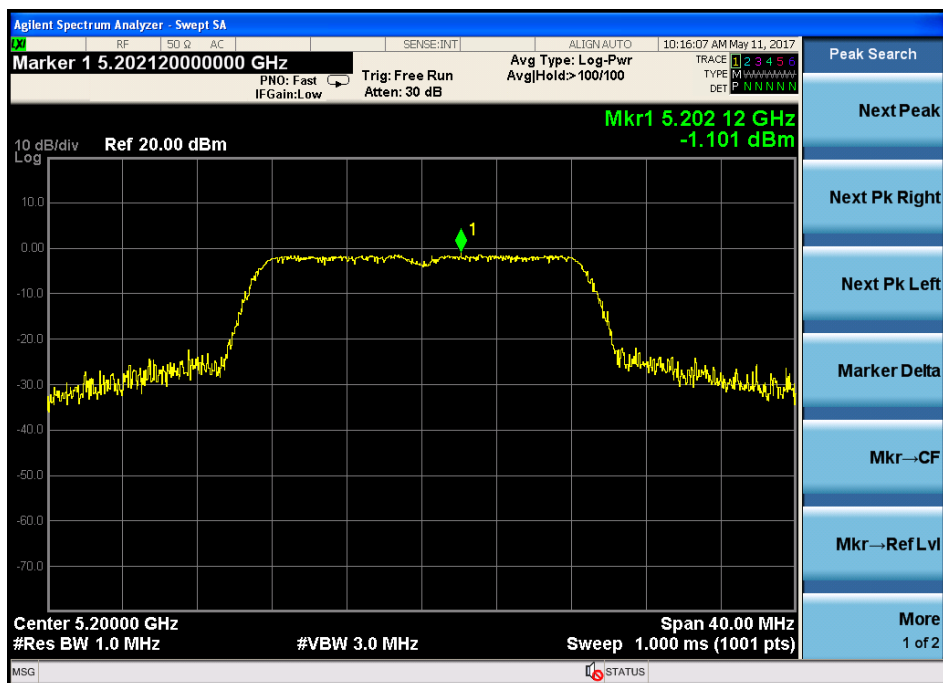


IEEE 802.11n HT20:

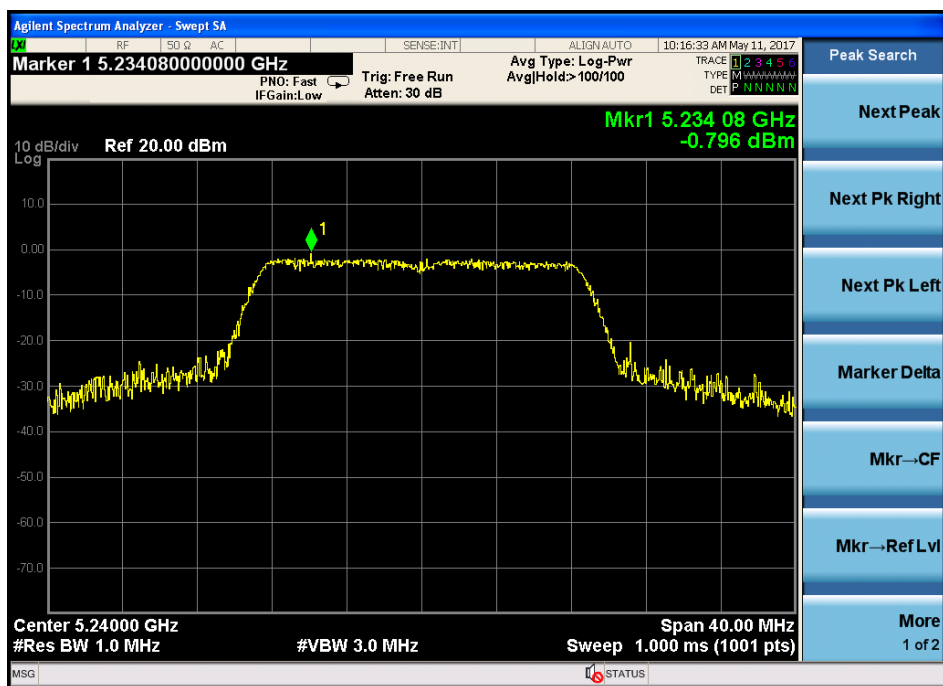
CH Low :



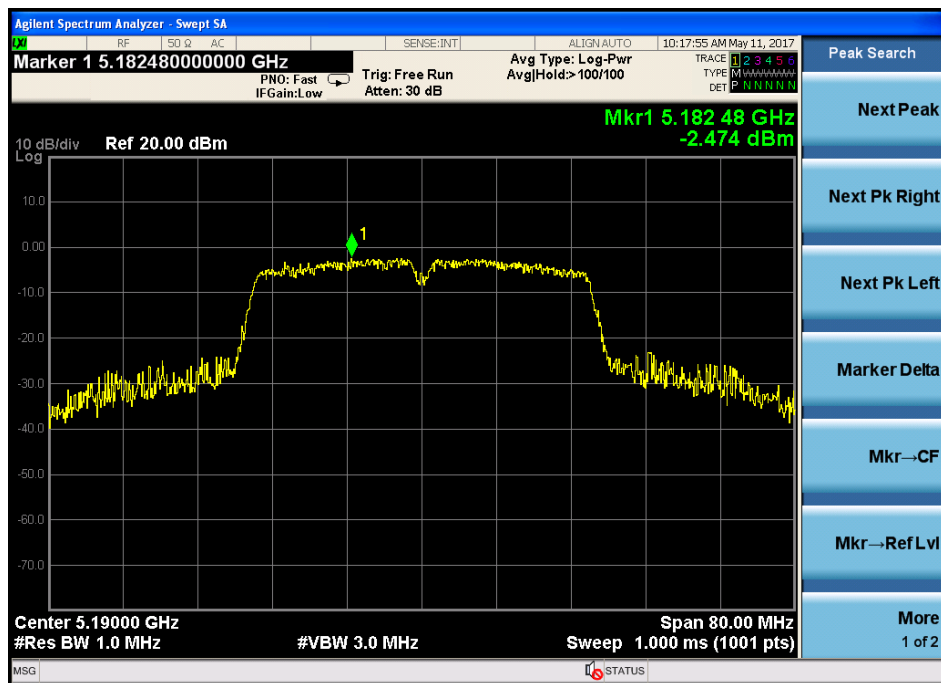
CH Mid:



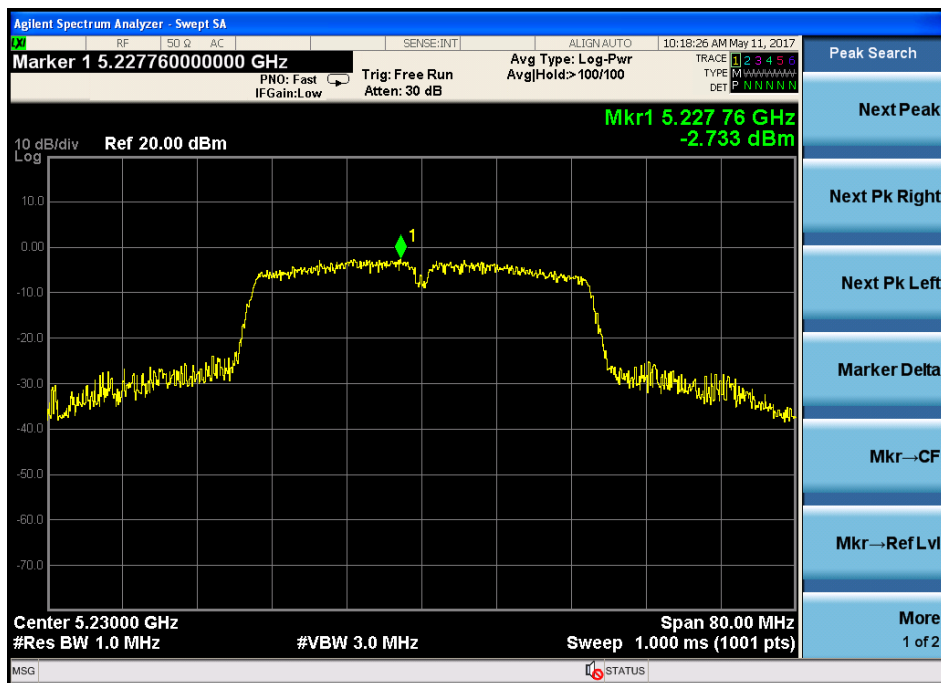
CH Hig:



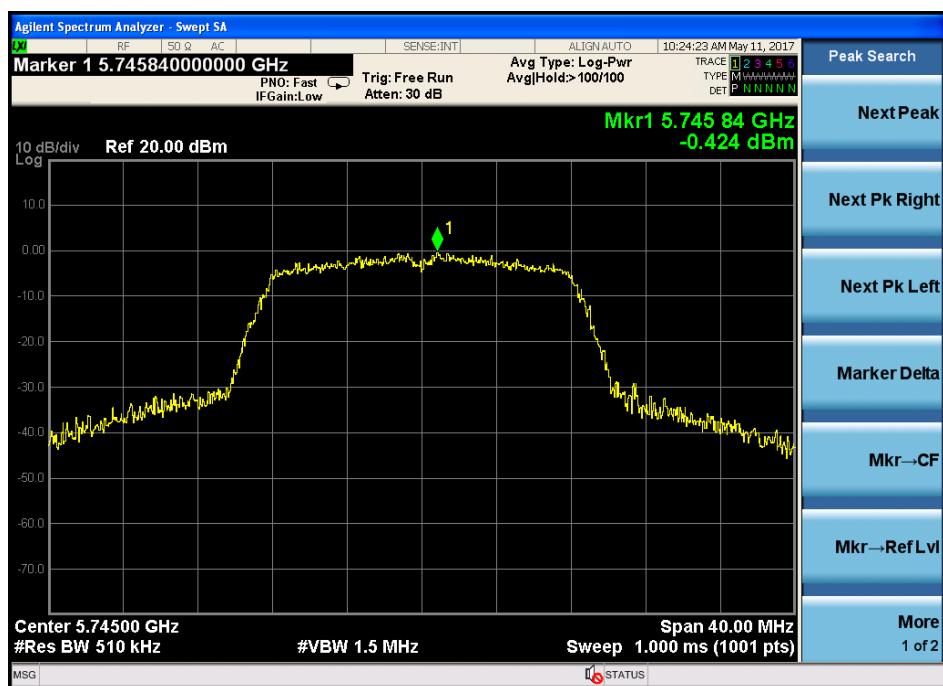
IEEE 802.11n HT40:  
CH Low :



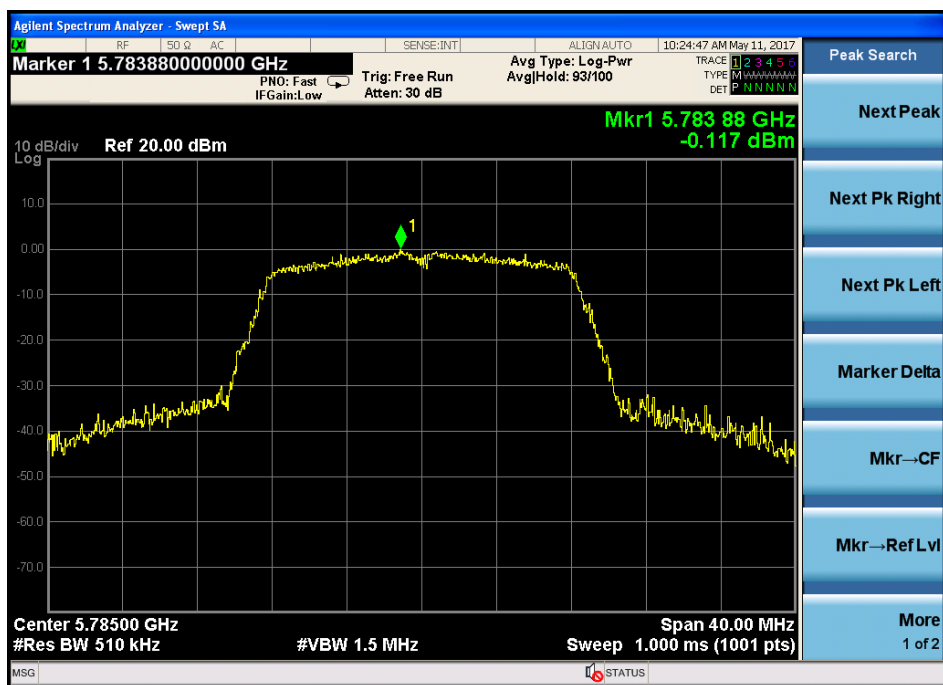
CH Hig:



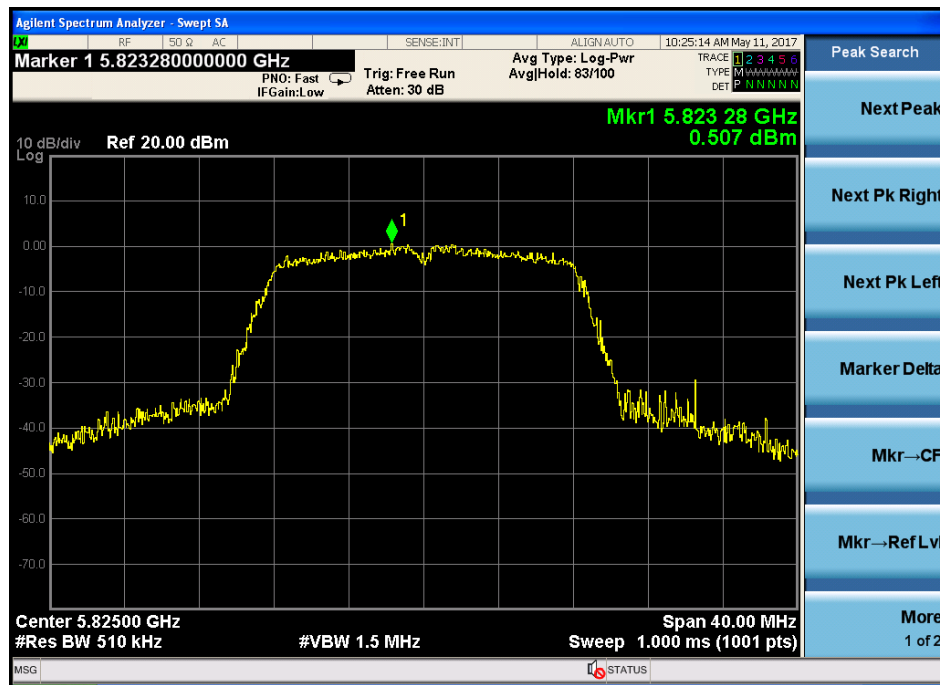
5.8G Band  
IEEE 802.11a :  
CH Low :



CH Mid:

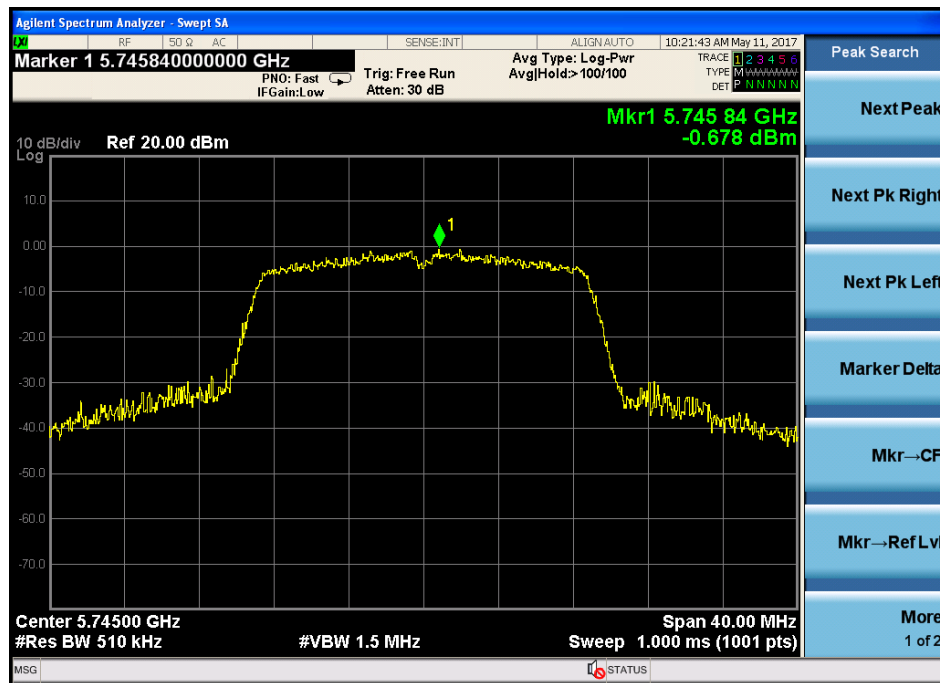


CH Hig:



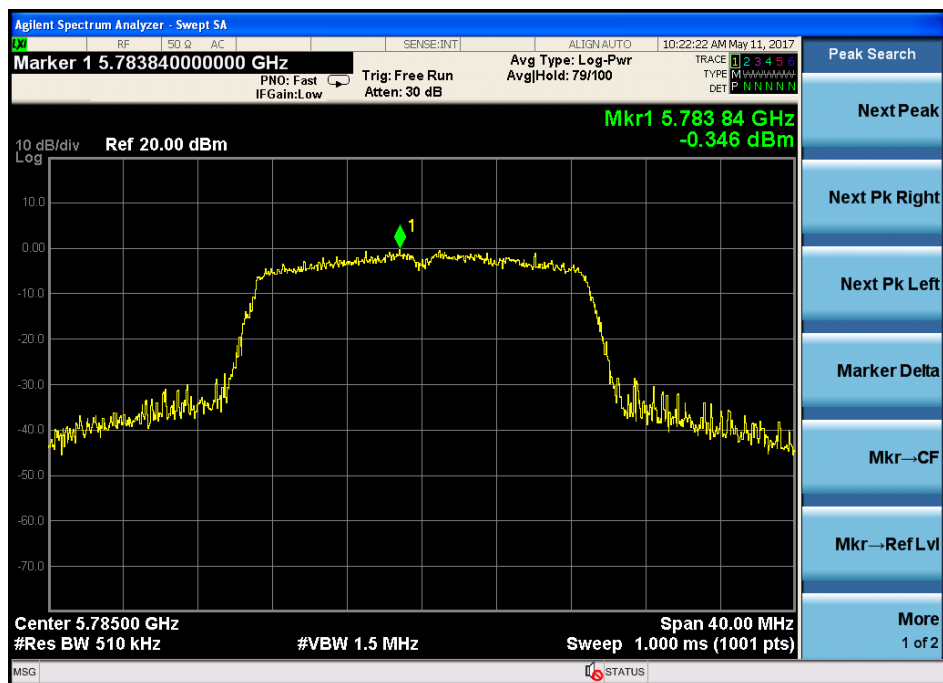
IEEE 802.11n HT20 :

CH Low :

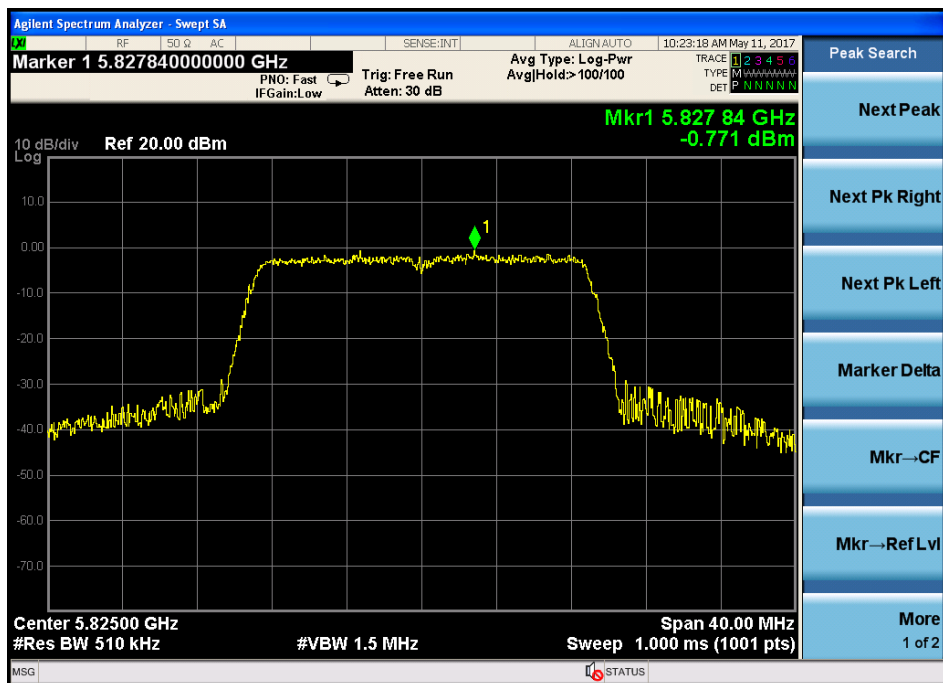




CH Mid:

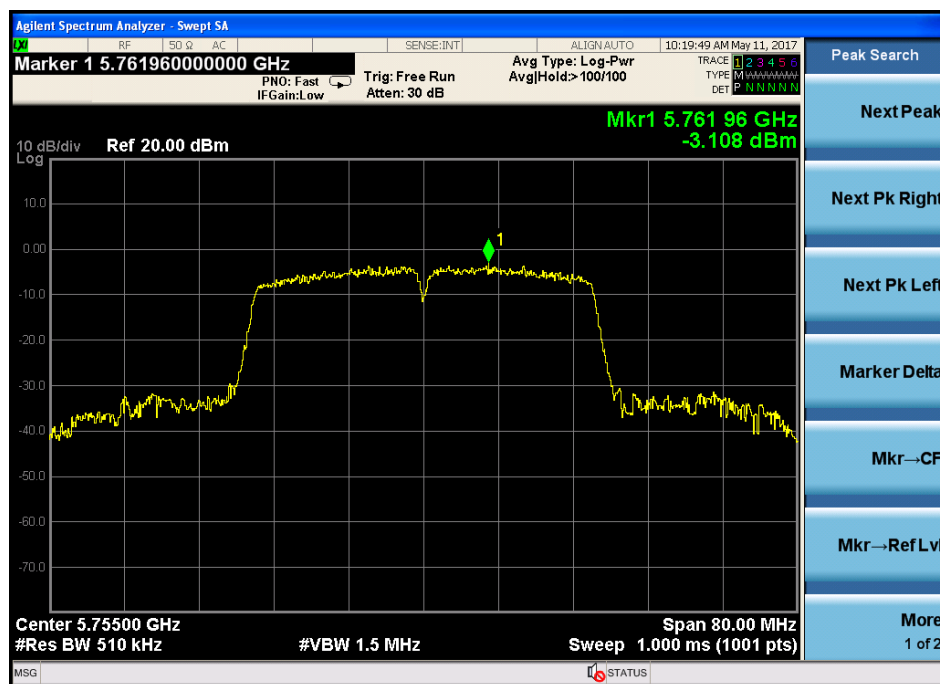


CH Hig:

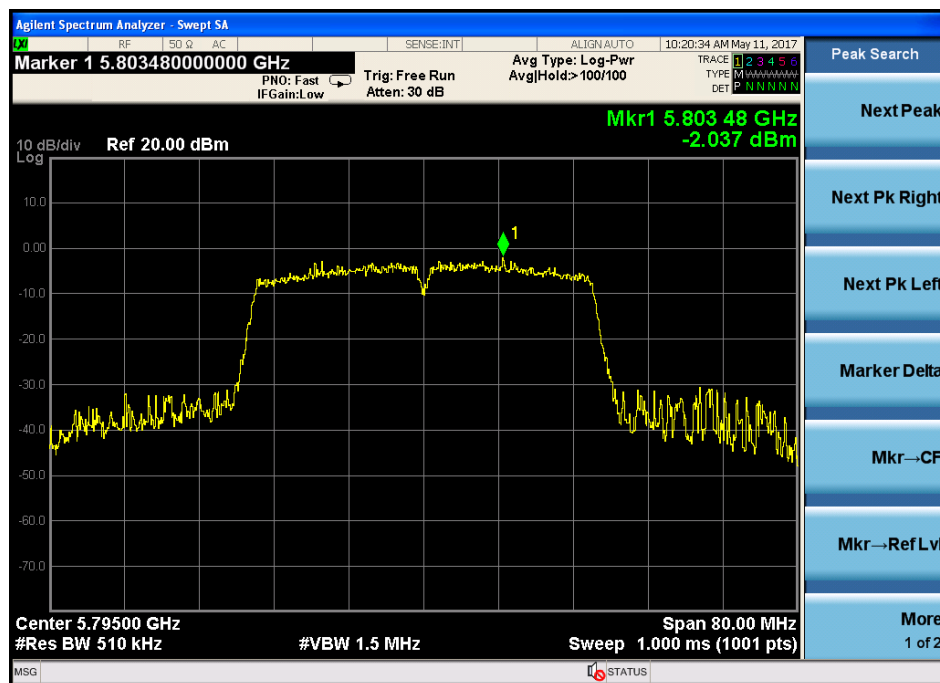


IEEE 802.11n HT40 :

CH Low :



CH Hig:



Remark: A RBW of 500KHz can not be set for the Spectrum Analyzer, and the results of RBW 510KHz are worse than RBW of 500KHz, therefore, if results of the RBW 510KHz complies with limit, results of RBW 500KHz are deemed to comply with limit

## 9 Bandwidth

### 9.1 Test limit

Please refer section 15.407

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

### 9.2 Method of measurement

#### 9.2.1 26dB bandwidth Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW  $\geq$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### 9.2.2 99% bandwidth Test Procedures

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW  $\geq 3 \cdot$  RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).

7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

#### 9.2.3 6dB bandwidth Test Procedures

1. The testing follows FCC KDB 789033 D02.

a) Set RBW = 100 kHz.

b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.

c) Detector = Peak.

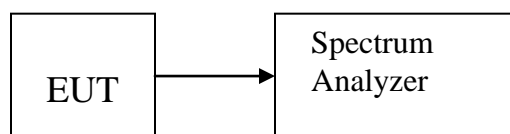
d) Trace mode = max hold.

e) Sweep = auto couple.

f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 9.3 Test Setup



### 9.4 Test Results

**PASS.**

Detailed information please see the following page.