

FCC TEST REPORT  
For  
MINIX TECHNOLOGY LIMITED

Mini PC with Android OS

Model No.: NEO U9-H

Additional Model No.:/

Prepared for : MINIX TECHNOLOGY LIMITED  
Address : Unit 01, 15/F, Chevalier Commercial Center, No.8 Wang Hoi Road,  
Kowloon Bay, Kowloon, Hong Kong

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Date of receipt of test sample : Jan 09, 2017  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : Jan 09, 2017~Feb 14, 2017  
Date of Report : Feb 14, 2017

**FCC TEST REPORT  
FCC CFR 47 PART 15 C(15.247)**

**Report Reference No.** ..... : **LCS1701090940E**

Date of Issue ..... : Feb 14, 2017

**Testing Laboratory Name** ..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address ..... : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,  
Bao'an District, Shenzhen, Guangdong, China

Testing Location/ Procedure ..... : Full application of Harmonised standards   
Partial application of Harmonised standards   
Other standard testing method

**Applicant's Name** ..... : **MINIX TECHNOLOGY LIMITED**

Address ..... : Unit 01, 15/F, Chevalier Commercial Center, No.8 Wang Hoi Road,  
Kowloon Bay, Kowloon, Hong Kong

**Test Specification**

Standard ..... : FCC CFR 47 PART 15 C(15.247)

**Test Report Form No.** ..... : LCSEMC-1.0

TRF Originator ..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF ..... : Dated 2011-03

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**EUT Description.** ..... : **Mini PC with Android OS**

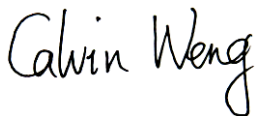
Trade Mark ..... : MINIX

Model/ Type reference ..... : NEO U9-H

Ratings ..... : DC 5V/3A by adapter  
Adapter input:100~240VAC, 50/60Hz, 0.5A

Result ..... : **Positive**

**Compiled by:**



Calvin Weng/ Administrators

**Supervised by:**



Glin Lu/ Technique principal

**Approved by:**



Gavin Liang/ Manager

### FCC -- TEST REPORT

<b>Test Report No. :</b> LCS1701090940E	<u>Feb 14, 2017</u> Date of issue
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EUT.....	: Mini PC with Android OS
Type / Model.....	: NEO U9-H
<b>Applicant.....</b>	<b>: MINIX TECHNOLOGY LIMITED</b>
Address.....	: Unit 01, 15/F, Chevalier Commercial Center, No.8 Wang Hoi Road, Kowloon Bay, Kowloon, Hong Kong
Telephone.....	:
Fax.....	:
<b>Manufacturer.....</b>	<b>: XIANGUAN ELECTRONICS LIMITED</b>
Address.....	: 13F, Building B, Haisong Edifice, Tairan 9th Rd, Futian District, Shenzhen, China
Telephone.....	:
Fax.....	:
<b>Factory.....</b>	<b>: XIANGUAN ELECTRONICS LIMITED</b>
Address.....	: 13F, Building B, Haisong Edifice, Tairan 9th Rd, Futian District, Shenzhen, China
Telephone.....	:
Fax.....	:

<b>Test Result</b>	<b>Positive</b>
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The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

**Revision History**

Revision	Issue Date	Revisions	Revised By
00	Feb 14, 2017	Initial Issue	Gavin Liang

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## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT	: Mini PC with Android OS
Test Model	: NEO U9-H
Hardware Version	: JX912AV1.1
Software Version	: V1.0
Power Supply	: DC 5V/3A by adapter Adapter input:100~240VAC, 50/60Hz, 0.5A
EUT Supports	: 2.4GHz WIFI/5G WIFI/Bluetooth 4.1
Radios Application	
Bluetooth	:
Operating Frequency	: 2.402-2.480GHz
Channel Number	: 40 channels for Bluetooth V4.1 (DTS)
Channel Spacing	: 2MHz for Bluetooth V4.1 (DTS)
Modulation Type	: GFSK for Bluetooth V4.1 (DTS)
Bluetooth Version	: V4.1
Antenna Description	: R-SMA Antenna, 2.5dBi(Max.)
WIFI(2.4GHz Band)	:
Operating Frequency	: 2412-2462MHz
Channel Spacing	: 5MHz
Channel Number	: 11 Channel for 20MHz bandwidth(2412~2462MHz) 7 channels for 40MHz bandwidth(2422~2452MHz)
Modulation Type	: 802.11b: DSSS; 802.11g/n: OFDM
Antenna Description	: R-SMA Antenna, 2.5dBi(Max.) FPC Antenna, 2.5dBi(Max.)
WIFI(5GHz Band)	:
Operating Frequency	: 5180.00-5240.00MHz
Channel Number	: 4 Channel for 20MHz Bandwidth 2 channels for 40MHz Bandwidth 1 channels for 80MHz Bandwidth
Modulation Type	: 802.11a/n/ac: OFDM

Antenna Description : R-SMA Antenna, 2.5dBi(Max.)  
FPC Antenna, 2.5dBi(Max.)

## 1.2. Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	Certificate
Shenzhen City Yunsheng Plastic Electronics Co., Ltd	Power Adapter	YS03-050300U	---	FCC VoC

## 1.3. External I/O Cable

I/O Port Description	Quantity	Cable
USB Port	3	0.5m, unshielded
TF Card Port	1	N/A
OTG Port	1	0.2m, unshielded
RJ45 Port	1	N/A
HDMI Port	1	0.5m, unshielded
DC in Port	1	1.2m, unshielded
Earphone Port	1	N/A
Mic Port	1	N/A

#### 1.4. Description of Test Facility

CNAS Registration Number. is L4595.  
 FCC Registration Number. is 899208.  
 Industry Canada Registration Number. is 9642A-1.  
 ESMD Registration Number. is ARCB0108.  
 UL Registration Number. is 100571-492.  
 TUV SUD Registration Number. is SCN1081.  
 TUV RH Registration Number. is UA 50296516-001

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

#### 1.5. Statement of The Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

#### 1.6. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty	9KHz~30MHz	±3.10dB	(1)
	30MHz~200MHz	±2.96dB	(1)
	200MHz~1000MHz	±3.10dB	(1)
	1GHz~26.5GHz	±3.80dB	(1)
	26.5GHz~40GHz	±3.90dB	(1)
Conduction Uncertainty	150kHz~30MHz	±1.63dB	(1)
Power disturbance	30MHz~300MHz	±1.60dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

#### 1.7. Description Of Test Modes

The EUT has been tested under operating condition.

This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.

Worst-case mode and channel used for 150kHz-30 MHz power line conducted emissions was the mode and channel with the highest output power, that was determined to be 802.11b mode(High Channel).

Worst-case mode and channel used for 9kHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be 802.11b mode(High Channel).

Worst-Case data rates were utilized from preliminary testing of the Chipset, worst-case datarates used during the testing are as follows:

BT LE: 1Mbps, GFSK  
 802.11b Mode: 1 Mbps, DSSS.  
 802.11g Mode: 6 Mbps, OFDM.  
 802.11n Mode HT20: MCS0, OFDM.  
 802.11n Mode HT40: MCS0, OFDM.



## Channel List &amp; Frequency

## IEEE 802.11b/g/n HT20

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
2412~2462MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437	--	--

## IEEE 802.11n HT40

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
2422~2452MHz	1	--	7	2442
	2	--	8	2447
	3	2422	9	2452
	4	2427	10	--
	5	2432	11	--
	6	2437	--	--

## BLE 4.0

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
2402~2480MHz	1	2402	21	2442
	2	2404	--	--
	3	2406	--	--
	--	--	38	2476
	--	--	39	2478
	20	2440	40	2480

## 2. TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

The radiated testing was performed at an antenna-to-EUT distance of 3 meters. All radiated and conducted emissions measurement was performed at Shenzhen LCS Compliance Testing Laboratory Ltd..

### 2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

### 2.2. EUT Exercise

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to FCC's request, Test Procedure KDB558074 D01 DTS Meas. Guidance v03r05 and KDB 6622911 are required to be used for this kind of FCC 15.247 digital modulation device.

According to its specifications, the EUT must comply with the requirements of the Section 15.203, 15.205, 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

### 2.3. General Test Procedures

#### 2.3.1 Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

#### 2.3.2 Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10-2013

### 3. SYSTEM TEST CONFIGURATION

#### 3.1. Justification

The system was configured for testing in a continuous transmit condition.

Note: For BLE, only R-SMA antenna port is used, for 2.4GHz Wi-Fi, both antennas are used, and the main antenna(with R-SMA port) will refer to as ant0, the aux antenna(with FPC antenna) will refer to as ant1 below.

#### 3.2. EUT Exercise Software

The system was configured for testing in a continuous transmits condition and change test channels by software (RF test tool) provided by applicant.

#### 3.3. Special Accessories

No.	Equipment	Manufacturer	Model No.	Serial No.	Length	shielded/ unshielded	Notes
1	PC	Lenovo	Ideapad	A131101550	/	/	DOC
2	Power adapter	Lenovo	CPA-A090	36200414	1.00m	unshielded	DOC

#### 3.4. Block Diagram/Schematics

Please refer to the related document

#### 3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

#### 3.6. Test Setup

Please refer to the test setup photo.

#### 4. SUMMARY OF TEST RESULTS

Applied Standard: FCC Part 15 Subpart C		
FCC Rules	Description of Test	Result
§15.247(b)	Maximum Conducted Output Power	Compliant
§15.247(e)	Power Spectral Density	Compliant
§15.247(a)(2)	6dB Bandwidth	Compliant
§15.247(a)	Occupied Bandwidth	Compliant
§15.209, §15.247(d)	Radiated and Conducted Spurious Emissions	Compliant
§15.205	Emissions at Restricted Band	Compliant
§15.207(a)	Conducted Emissions	Compliant
§15.203	Antenna Requirements	Compliant
§15.247(i)§2.1091	RF Exposure	Compliant

## 5. TEST RESULT

### 5.1. On Time and Duty Cycle

#### 5.1.1. Standard Applicable

None; for reporting purpose only.

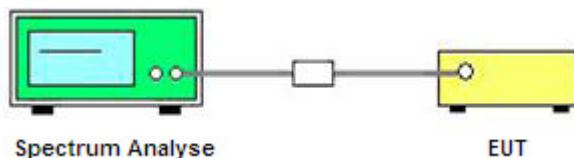
#### 5.1.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of the spectrum analyse.

#### 5.1.3. Test Procedures

1. Set the centre frequency of the spectrum analyse to the transmitting frequency;
2. Set the span=0MHz, RBW=8MHz, VBW=50MHz, Sweep time=5ms;
3. Detector = peak;
4. Trace mode = Single hold.

#### 5.1.4. Test Setup Layout



#### 5.1.5. EUT Operation during Test

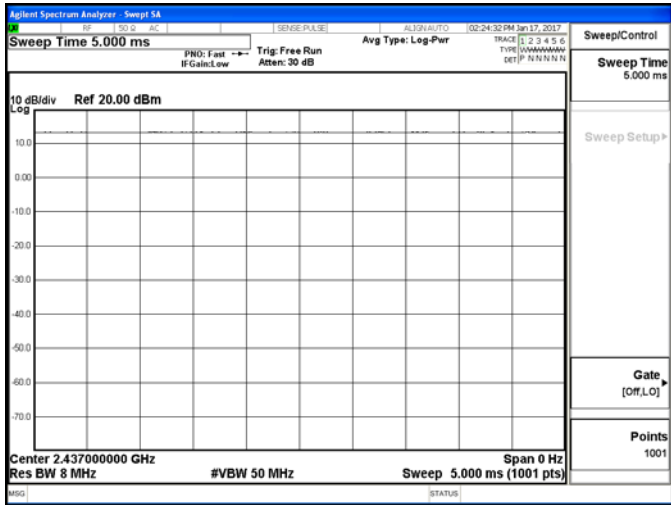
The EUT was programmed to be in continuously transmitting mode.

#### 5.1.6. Test result

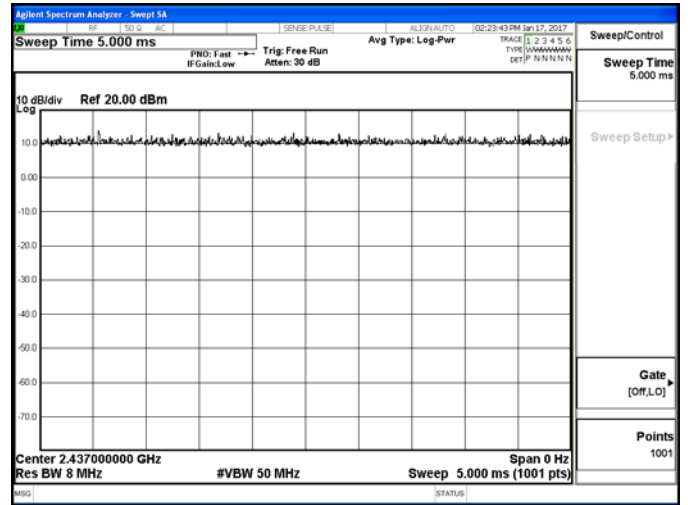
Note: For BLE, only R-SMA antenna port is used, for 2.4GHz Wi-Fi, both antennas are used, but only recorded the worst case of R-SMA antenna port.

Mode	On Time B (ms)	Period (ms)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW(KHz)
802.11b	5.0	5.0	1	100	0	0.01
802.11g	5.0	5.0	1	100	0	0.01
802.11n -HT20	5.0	5.0	1	100	0	0.01
802.11n -HT40	5.0	5.0	1	100	0	0.01
BLE	5.0	5.0	1	100	0	0.01

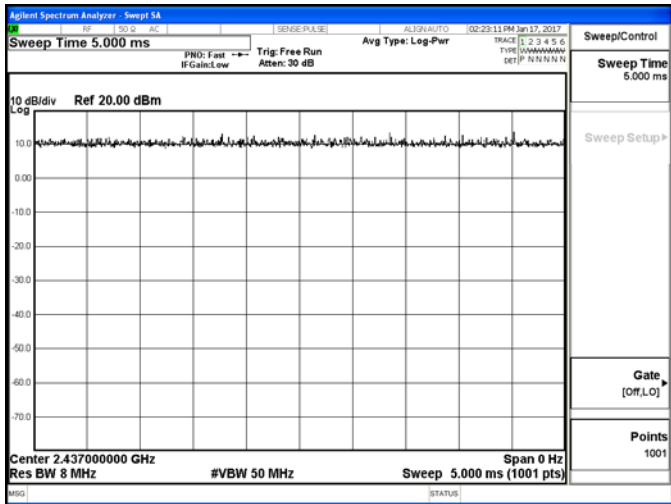
Test plot of On Time and Duty Cycle



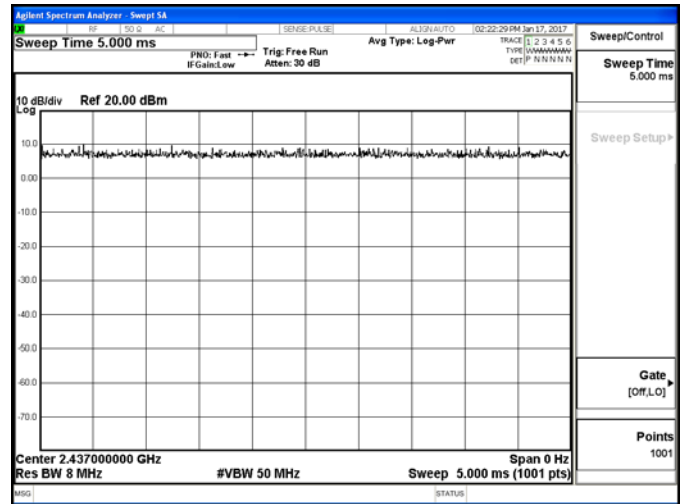
802.11b



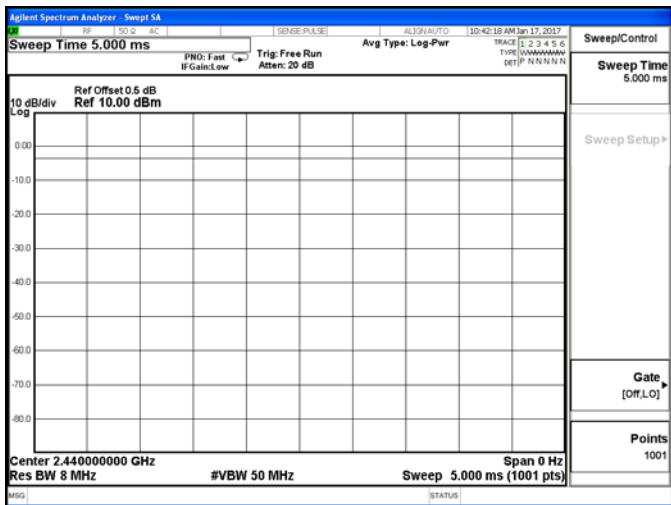
802.11g



802.11n-HT20



802.11n-HT40



BT LE

## 5.2. Maximum Conducted Output Power Measurement

### 5.2.1. Standard Applicable

According to §15.247(b): For systems using digital modulation in the 2400-2483.5 MHz and 5725-5850 MHz band, the limit for maximum peak conducted output power is 30dBm. The limit has to be reduced by the amount in dB that the gain of the antenna exceeds 6dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi without any corresponding reduction in transmitter peak output power.

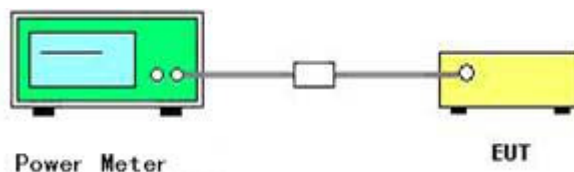
### 5.2.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of the power meter.

### 5.2.3. Test Procedures

The transmitter output (antenna port) was connected to the power meter.

### 5.2.4. Test Setup Layout



### 5.2.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.2.6. Test Result of Maximum Conducted Output Power

Temperature	25°C	Humidity	60%
Test Engineer	Chaz	Configurations	BT LE/802.11b/g/n

Note: For BLE, only R-SMA antenna port is used, for 2.4GHz Wi-Fi, both antennas are used, and the main antenna(with R-SMA port) will refer to as ant0, the aux antenna(with FPC antenna) will refer to as ant1 below.

BT LE

Channel	Frequency (MHz)	Conducted Power (dBm)(Ant 0)	Peak/AVG	Max. Limit (dBm)	Result
0	2402	-3.545	Peak	30	Complies
19	2440	-3.719	Peak	30	Complies
39	2480	-3.913	Peak	30	Complies
0	2402	-3.624	AVG	30	Complies
19	2440	-3.733	AVG	30	Complies
39	2480	-3.941	AVG	30	Complies

802.11b

Channel	Frequency (MHz)	Conducted Power (dBm)		Peak/AVG	Max. Limit (dBm)	Result
		Ant 0	Ant 1			
1	2412	16.73	16.38	Peak	30	Complies
6	2437	16.51	16.11	Peak	30	Complies
11	2462	16.33	15.96	Peak	30	Complies
1	2412	15.30	14.88	AVG	30	Complies
6	2437	15.03	14.94	AVG	30	Complies
11	2462	14.80	14.67	AVG	30	Complies

802.11g

Channel	Frequency (MHz)	Conducted Power (dBm)		Peak/AVG	Max. Limit (dBm)	Result
		Ant 0	Ant 1			
1	2412	16.69	16.27	Peak	30	Complies
6	2437	16.54	16.28	Peak	30	Complies
11	2462	16.30	15.97	Peak	30	Complies
1	2412	14.83	14.61	AVG	30	Complies
6	2437	14.20	13.97	AVG	30	Complies
11	2462	14.64	14.37	AVG	30	Complies



## 802.11n (HT20)

Channel	Frequency (MHz)	Conducted Power (dBm)			Peak/AVG	Max. Limit (dBm)	Result
		Ant 0	Ant 1	Sum			
1	2412	13.95	13.51	16.75	Peak	30	Complies
6	2437	13.71	13.67	16.70	Peak	30	Complies
11	2462	13.59	13.44	16.53	Peak	30	Complies
1	2412	11.77	11.64	14.72	AVG	30	Complies
6	2437	11.28	11.14	14.22	AVG	30	Complies
11	2462	11.62	11.43	14.54	AVG	30	Complies

## 802.11n (HT40)

Channel	Frequency (MHz)	Conducted Power (dBm)			Peak/AVG	Max. Limit (dBm)	Result
		Ant 0	Ant 1	Sum			
3	2422	13.59	13.25	16.43	Peak	30	Complies
6	2437	13.33	13.07	16.21	Peak	30	Complies
9	2452	13.29	12.89	16.10	Peak	30	Complies
3	2422	10.29	10.14	13.23	AVG	30	Complies
6	2437	10.30	10.34	13.33	AVG	30	Complies
9	2452	10.48	10.43	13.47	AVG	30	Complies

Note: AVG power was measured only for SAR evaluation.

## 5.3. Power Spectral Density Measurement

### 5.3.1. Standard Applicable

According to §15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

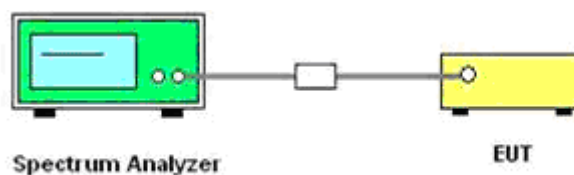
### 5.3.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of Spectrum Analyzer.

### 5.3.3. Test Procedures

1. The transmitter was connected directly to a Spectrum Analyzer through a directional coupler.
2. The power was monitored at the coupler port with a Spectrum Analyzer. The power level was set to the maximum level.
3. Set the RBW = 3 kHz~100kHz.
4. Set the VBW  $\geq 3 \times$  RBW
5. Set the span to 1.5 times the DTS channel bandwidth.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum power level in any 3 kHz band segment within the fundamental EBW.

### 5.3.4. Test Setup Layout



### 5.3.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.3.6. Test Result of Power Spectral Density

Temperature	25°C	Humidity	60%
Test Engineer	Chaz	Configurations	BT LE/802.11b/g/n

Note: For BLE, only R-SMA antenna port is used, for 2.4GHz Wi-Fi, both antennas are used, and the main antenna(with R-SMA port) will refer to as ant0, the aux antenna(with FPC antenna) will refer to as ant1 below.

## BT LE

Channel	Frequency (MHz)	Measured Power Density (dBm/3KHz)	Max. Limit (dBm/3KHz)	Result
0	2402	-18.836	8	Complies
19	2440	-18.965	8	Complies
39	2480	-19.196	8	Complies

## 802.11b

Channel	Frequency (MHz)	Measured Power Density (dBm/3KHz)		Max. Limit (dBm/3KHz)	Result
		Ant 0	Ant 1		
1	2412	-9.440	-9.981	8	Complies
6	2437	-14.196	-9.497	8	Complies
11	2462	-10.465	-10.831	8	Complies

## 802.11g

Channel	Frequency (MHz)	Measured Power Density (dBm/3KHz)		Max. Limit (dBm/3KHz)	Result
		Ant 0	Ant 1		
1	2412	-18.498	-17.443	8	Complies
6	2437	-18.638	-18.435	8	Complies
11	2462	-18.273	-17.553	8	Complies

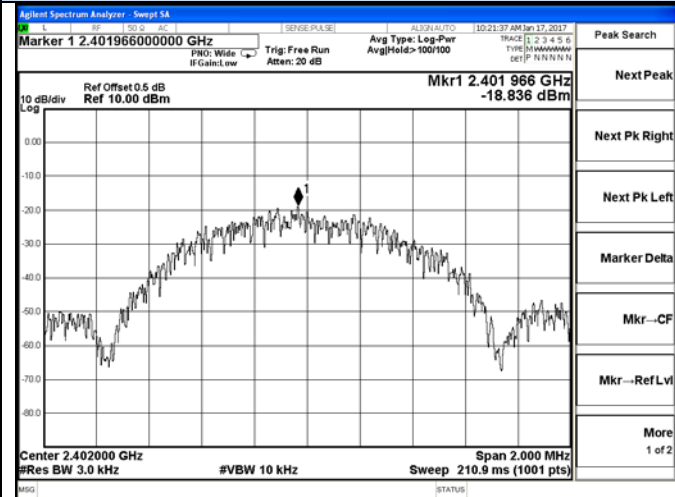
## 802.11n-HT20

Channel	Frequency (MHz)	Measured Power Density (dBm/3KHz)			Max. Limit (dBm/3KHz)	Result
		Ant 0	Ant 1	Sum		
1	2412	-16.566	-18.081	-14.25	8	Complies
6	2437	-18.816	-18.105	-15.44	8	Complies
11	2462	-18.190	-19.249	-15.68	8	Complies

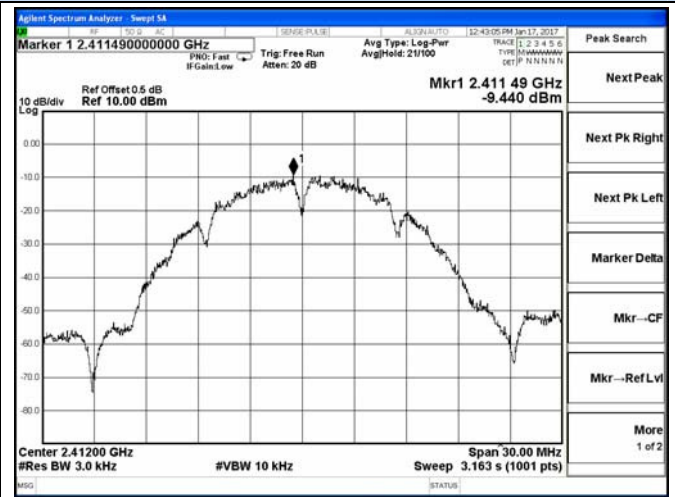
## 802.11n-HT40

Channel	Frequency (MHz)	Measured Power Density (dBm/3KHz)			Max. Limit (dBm/3KHz)	Result
		Ant 0	Ant 1	Sum		
3	2422	-20.759	-19.819	-17.25	8	Complies
6	2437	-20.304	-20.276	-17.28	8	Complies
9	2452	-19.513	-21.635	-17.44	8	Complies

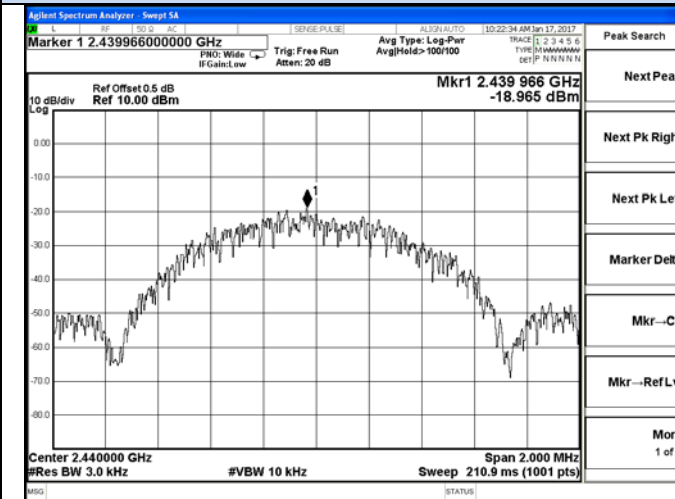
Test plot of Power Spectral Density-ant 0



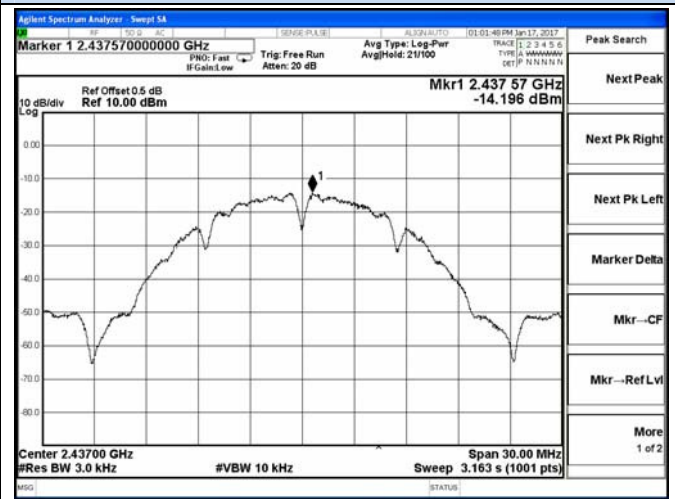
BT LE-Low channel



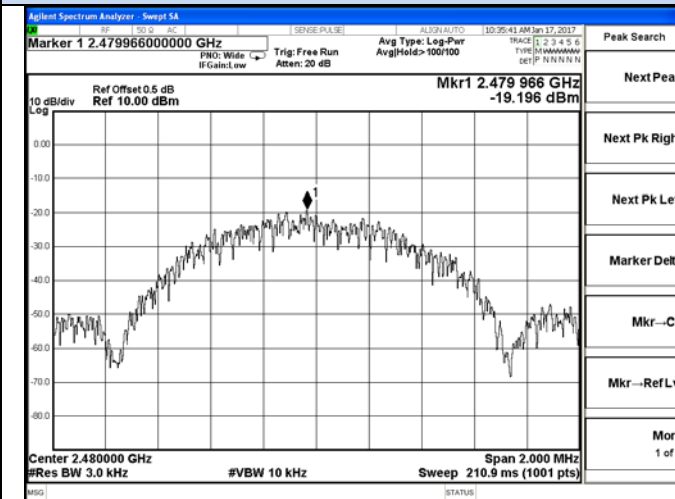
802.11b-Low channel



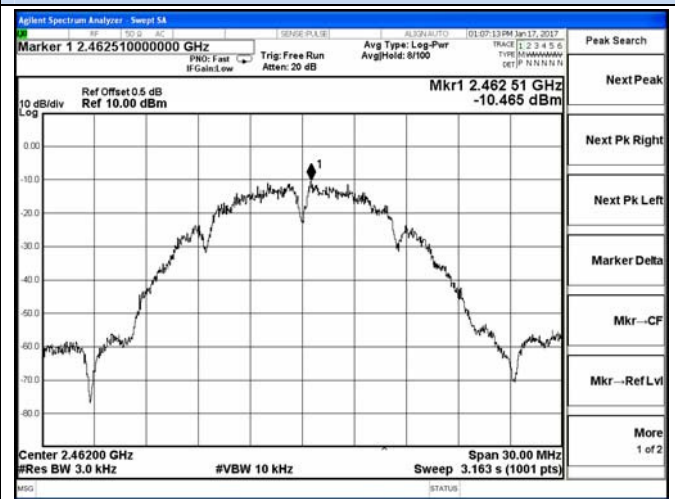
BT LE-Middle channel



802.11b-Middle channel

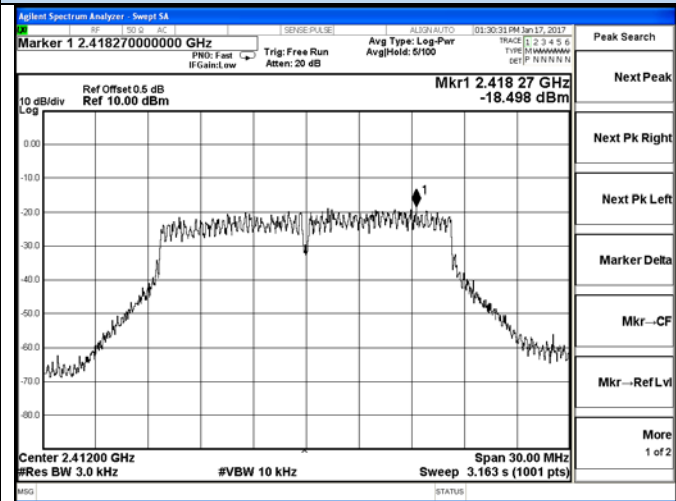


BT LE-High channel

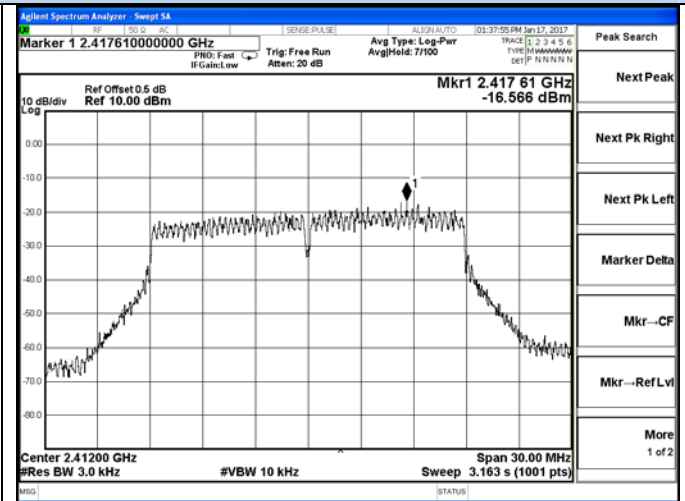


802.11b-High channel

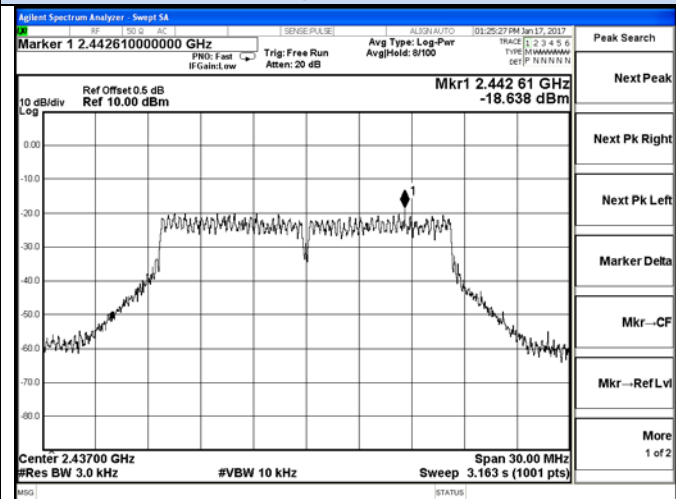
Test plot of Power Spectral Density-ant 0



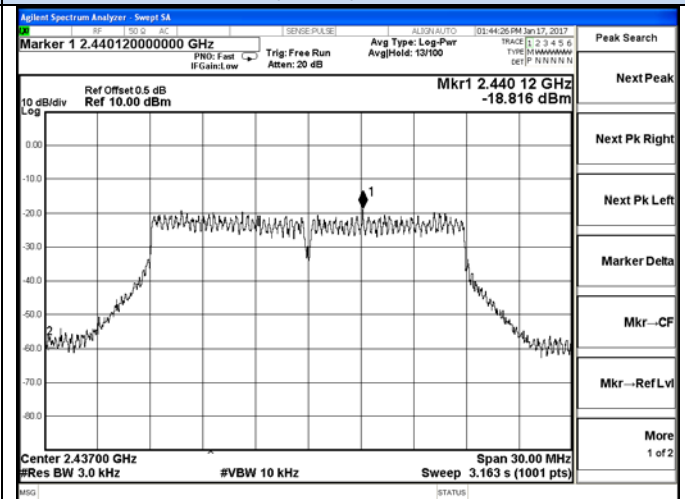
802.11g-Low channel



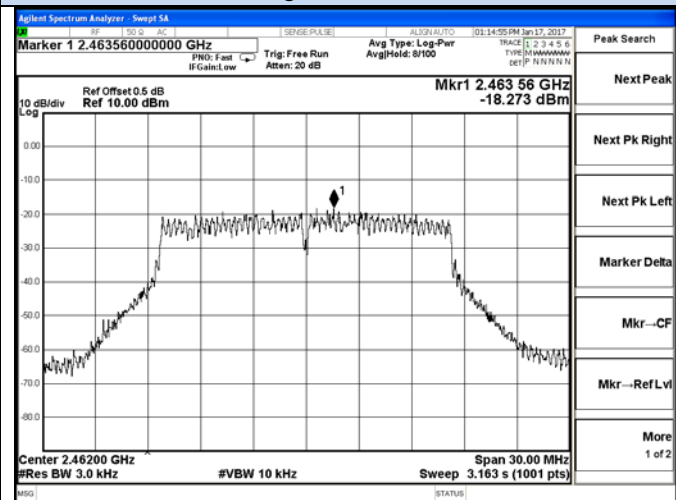
802.11n(HT20)-Low channel



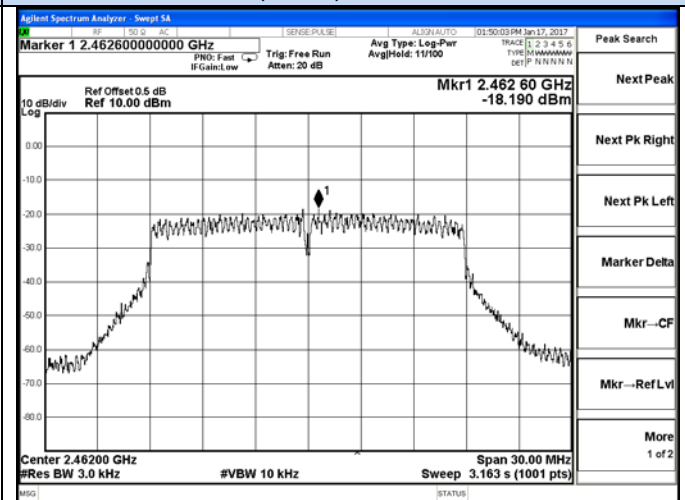
802.11g-Middle channel



802.11n(HT20)-Middle channel

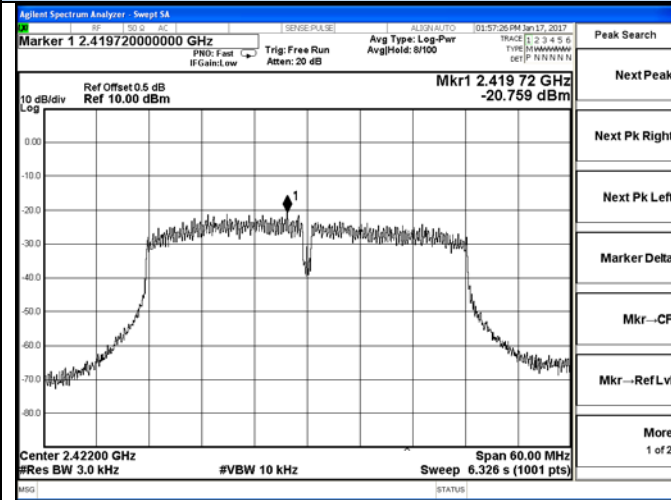


802.11g-High channel

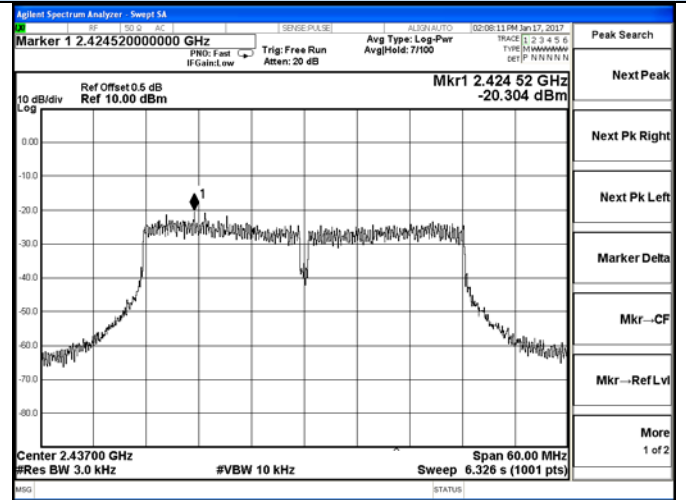


802.11n(HT20)-High channel

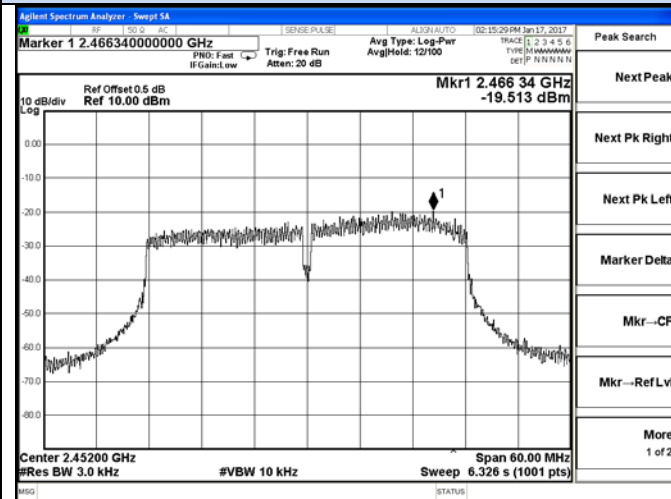
### Test plot of Power Spectral Density-ant 0



802.11n(HT40)-Low channel



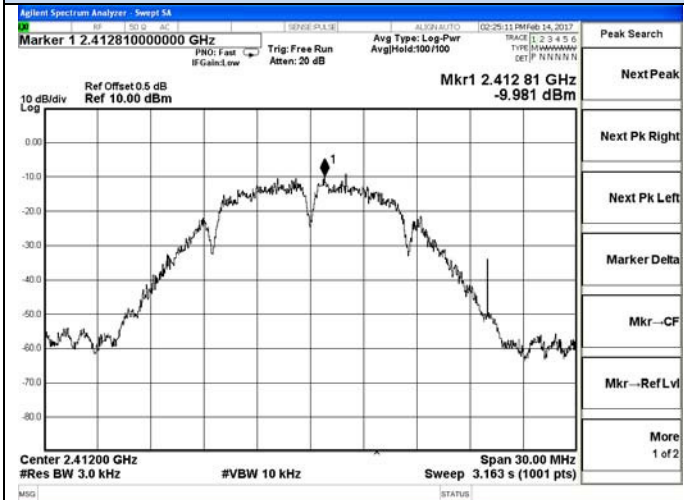
802.11n(HT40)-Mid channel



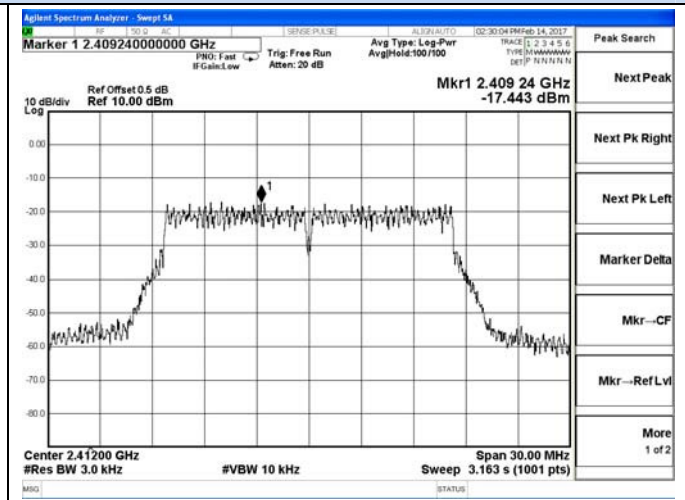
802.11n(HT40)-High channel



Test plot of Power Spectral Density-ant 1



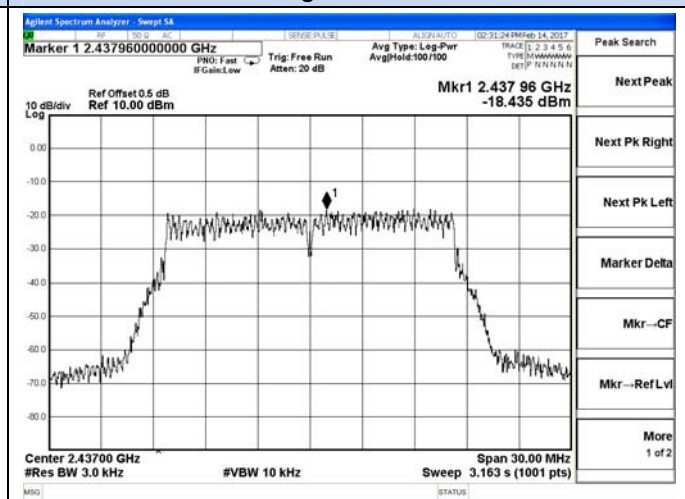
802.11b-Low channel



802.11g-Low channel



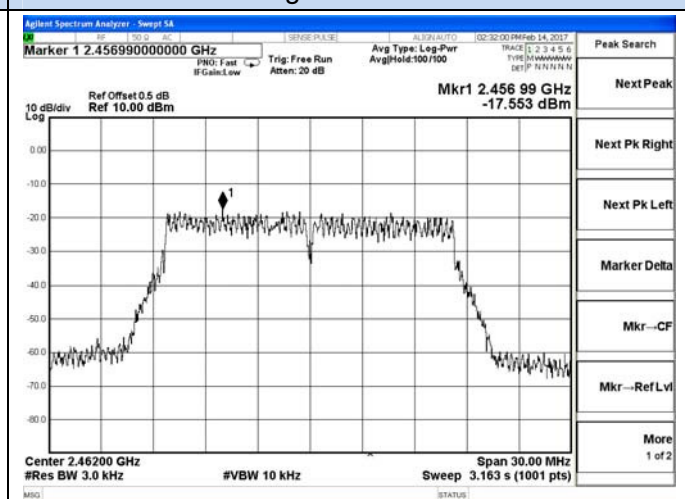
802.11b-Middle channel



802.11g-Middle channel



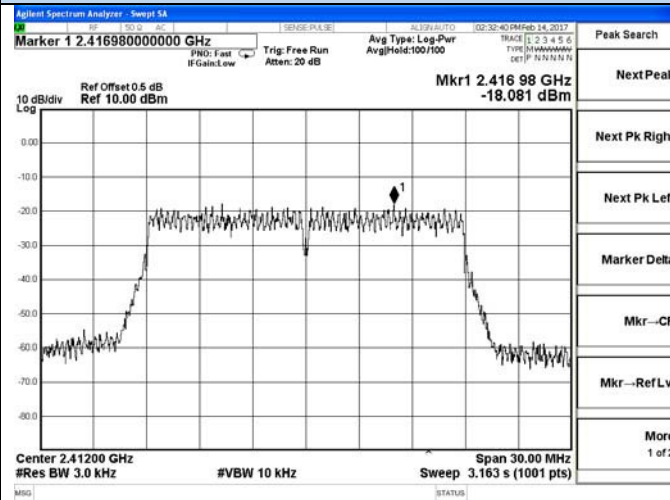
802.11b-High channel



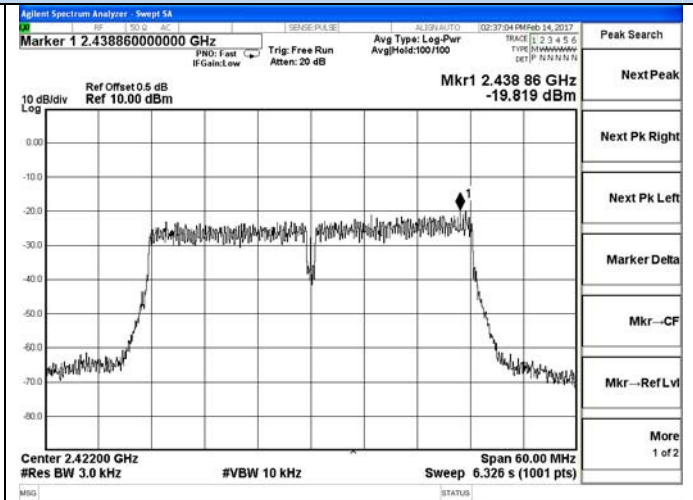
802.11g-High channel



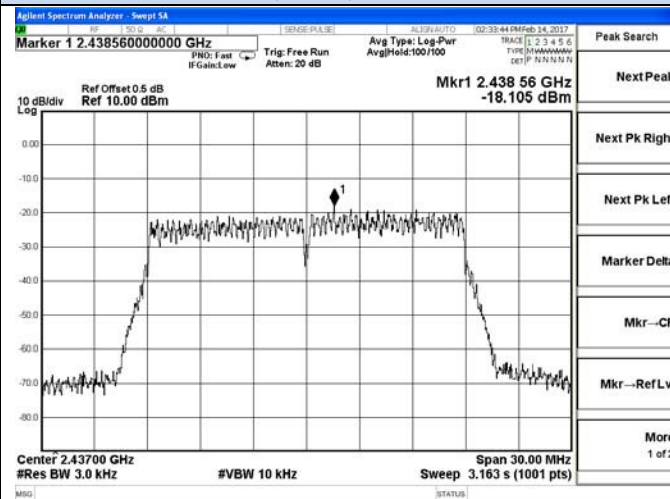
Test plot of Power Spectral Density-ant 1



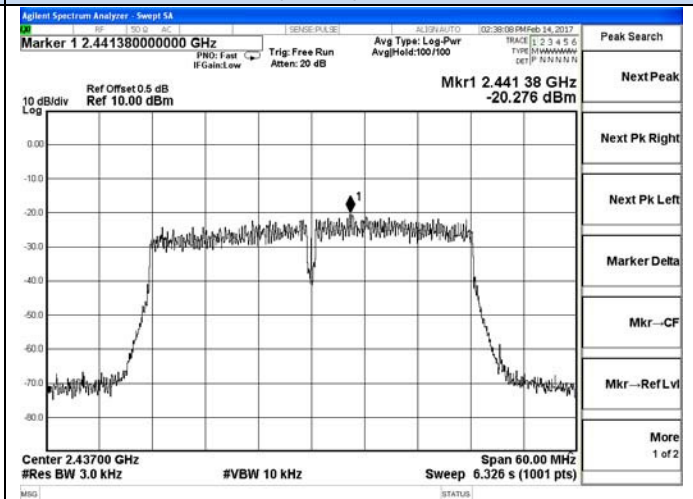
802.11n(HT20)-Low channel



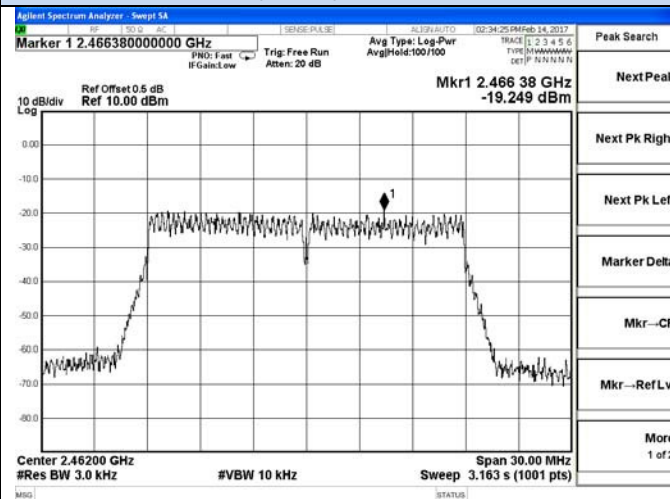
802.11n(HT40)-Low channel



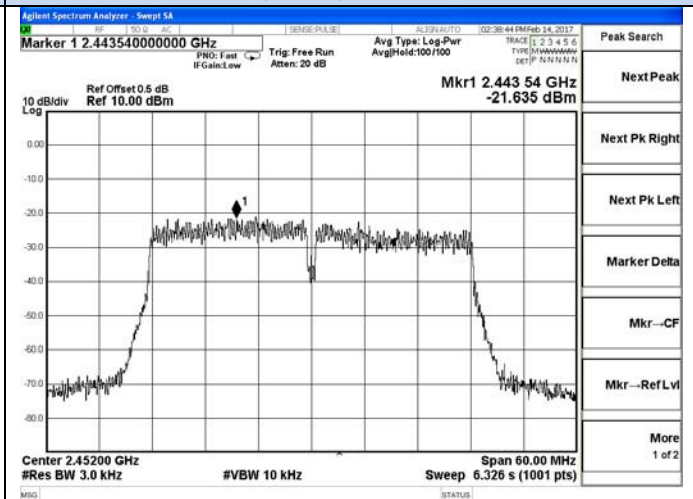
802.11n(HT20)-Middle channel



802.11n(HT40)-Middle channel



802.11n(HT20)-High channel



802.11n(HT40)-High channel

## 5.4. 6 dB Spectrum Bandwidth Measurement

### 5.4.1. Standard Applicable

According to §15.247(a)(2): For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

### 5.4.2. Measuring Instruments and Setting

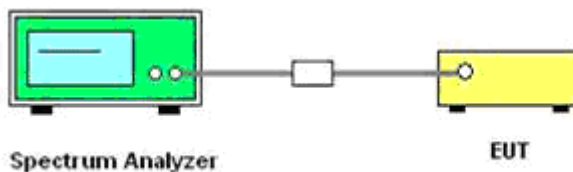
Please refer to section 6 of equipments list in this report. The following table is the setting of the Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> RBW
Detector	Peak
Trace	Max Hold
Sweep Time	100ms

### 5.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
2. The resolution bandwidth and the video bandwidth were set according to KDB558074.
3. Measured the spectrum width with power higher than 6dB below carrier.

### 5.4.4. Test Setup Layout



### 5.4.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 5.4.6. Test Result of 6dB Spectrum Bandwidth

Temperature	25°C	Humidity	60%
Test Engineer	Chaz	Configurations	BT LE/802.11b/g/n

Note: For BLE, only R-SMA antenna port is used, for 2.4GHz Wi-Fi, both antennas are used, and the main antenna(with R-SMA port) will refer to as ant0, the aux antenna(with FPC antenna) will refer to as ant1 below.

BT LE				
Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
0	2402	0.677	500	Complies
19	2440	0.677	500	Complies
39	2480	0.674	500	Complies

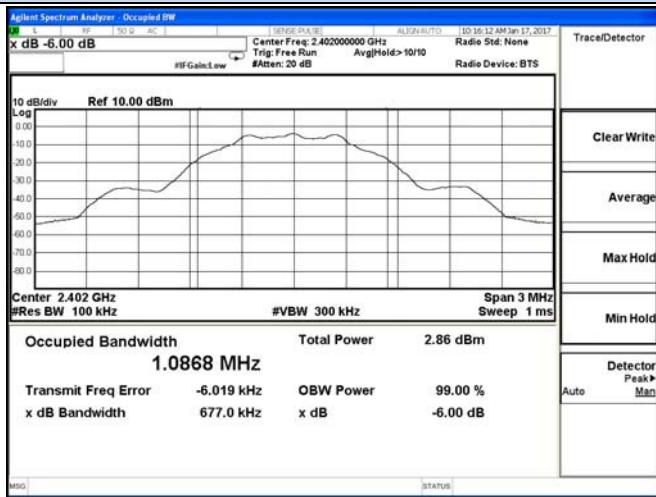
802.11b					
Channel	Frequency	6dB Bandwidth (MHz)		Min. Limit (kHz)	Result
		Ant 0	Ant 1		
1	2412	8.571	10.11	500	Complies
6	2437	9.537	9.608	500	Complies
11	2462	8.085	10.11	500	Complies

802.11g					
Channel	Frequency	6dB Bandwidth (MHz)		Min. Limit (kHz)	Result
		Ant 0	Ant 1		
1	2412	15.76	16.44	500	Complies
6	2437	16.40	16.19	500	Complies
11	2462	16.08	16.47	500	Complies

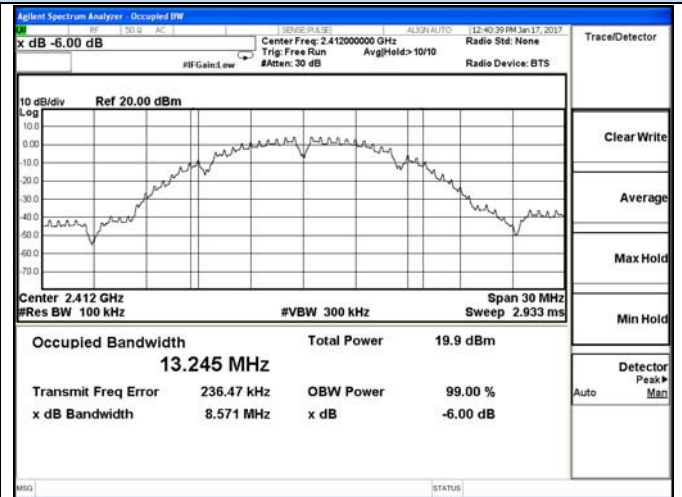
802.11n HT20					
Channel	Frequency	6dB Bandwidth (MHz)		Min. Limit (kHz)	Result
		Ant 0	Ant 1		
1	2412	16.37	17.66	500	Complies
6	2437	17.61	17.38	500	Complies
11	2462	16.81	17.66	500	Complies

802.11n HT40					
Channel	Frequency	6dB Bandwidth (MHz)		Min. Limit (kHz)	Result
		Ant 0	Ant 1		
3	2422	35.09	35.80	500	Complies
6	2437	35.97	35.34	500	Complies
9	2452	33.90	35.50	500	Complies

Test plot of 6 dB Bandwidth-ant 0



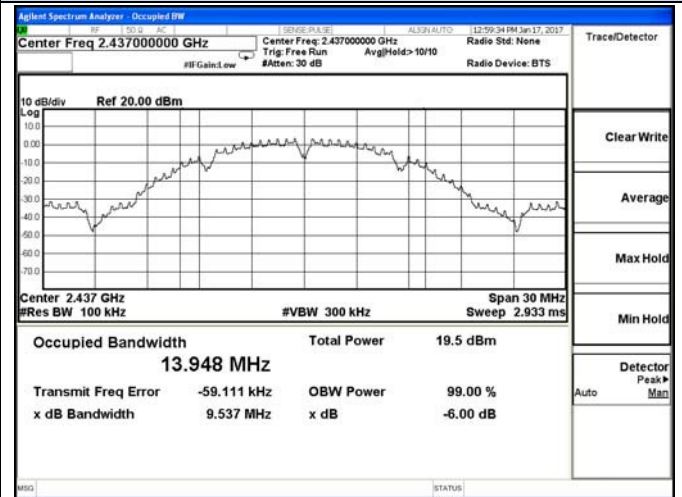
BT LE-Low channel



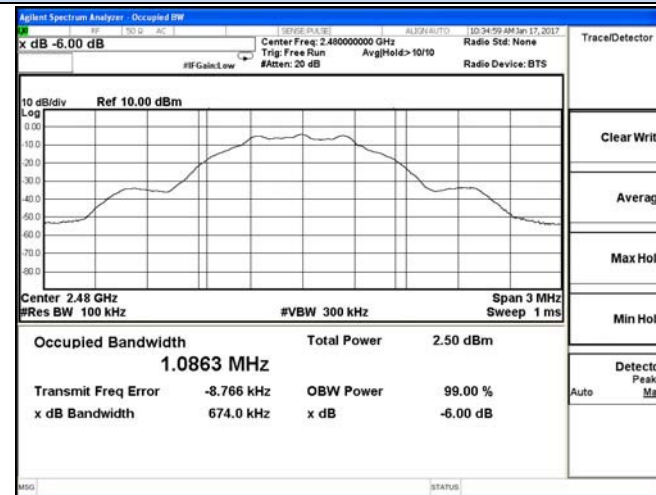
802.11b-Low channel



BT LE-Middle channel



802.11b-Middle channel

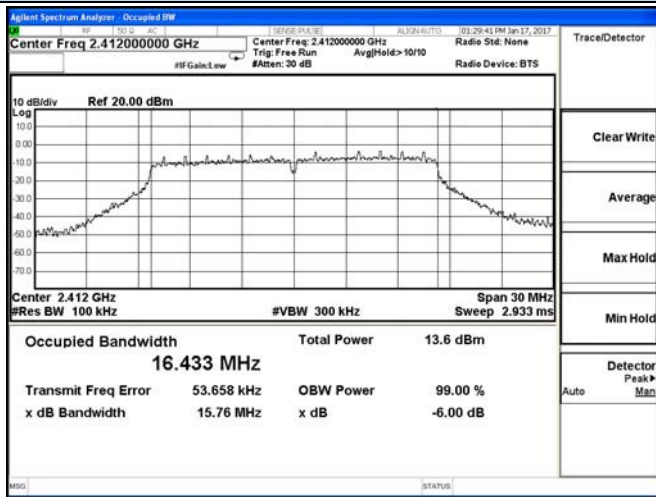


BT LE-High channel

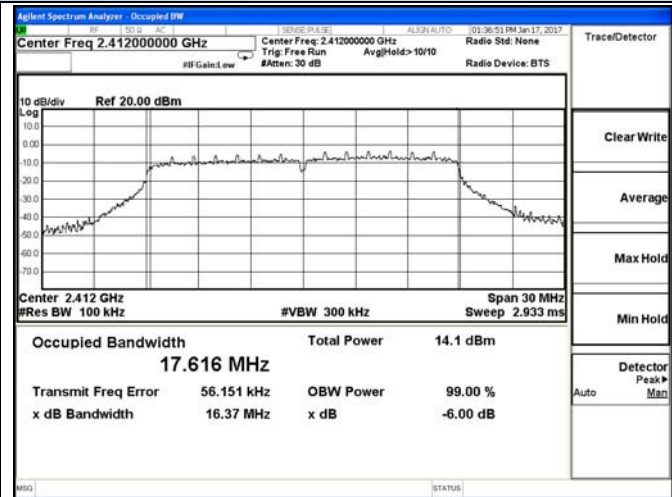


802.11b-High channel

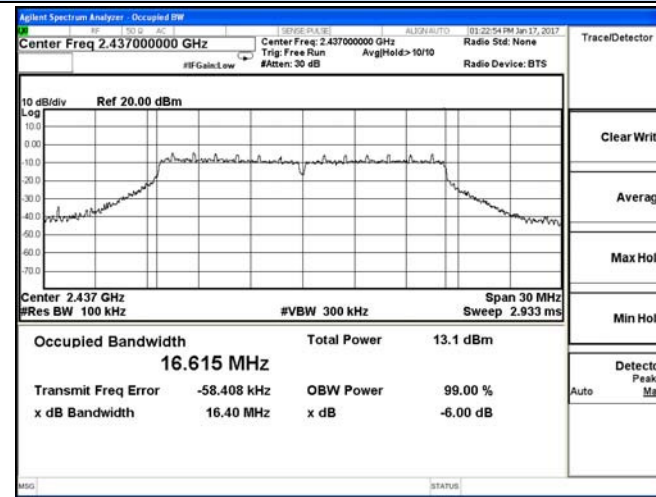
Test plot of 6 dB Bandwidth-ant 0



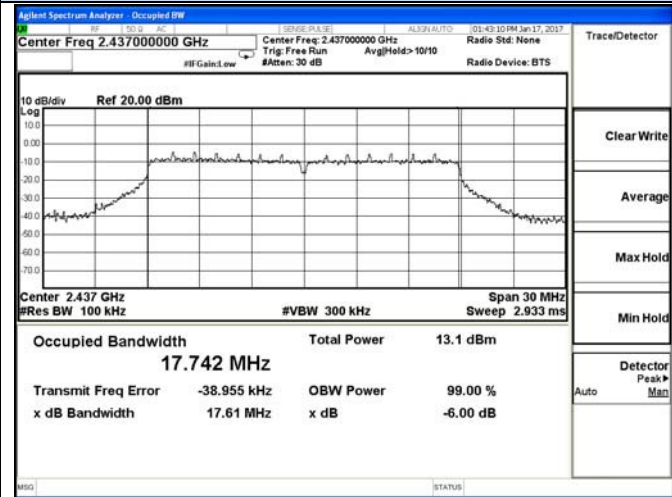
802.11g-Low channel



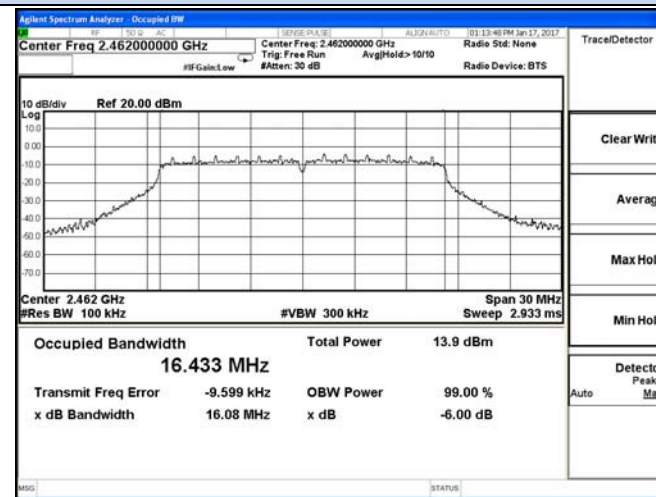
802.11n(HT20)-Low channel



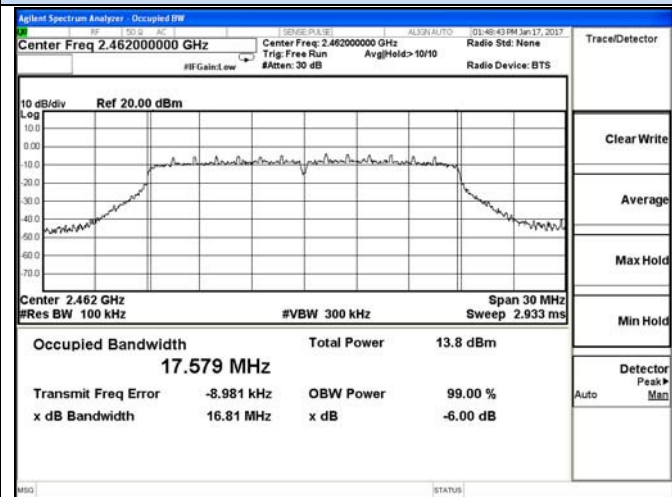
802.11g-Middle channel



802.11n(HT20)-Middle channel



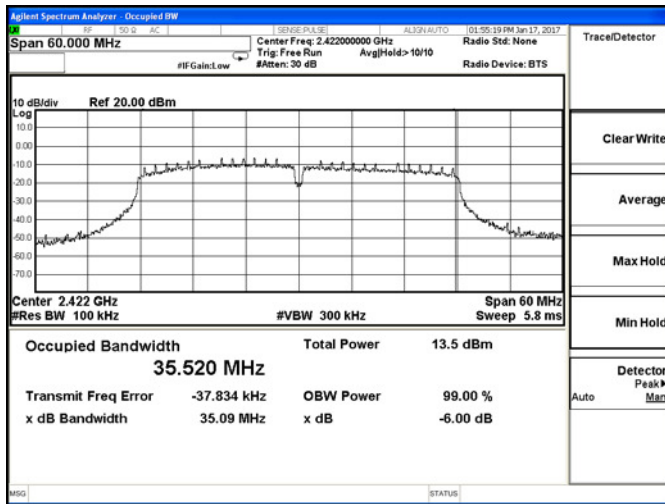
802.11g-High channel



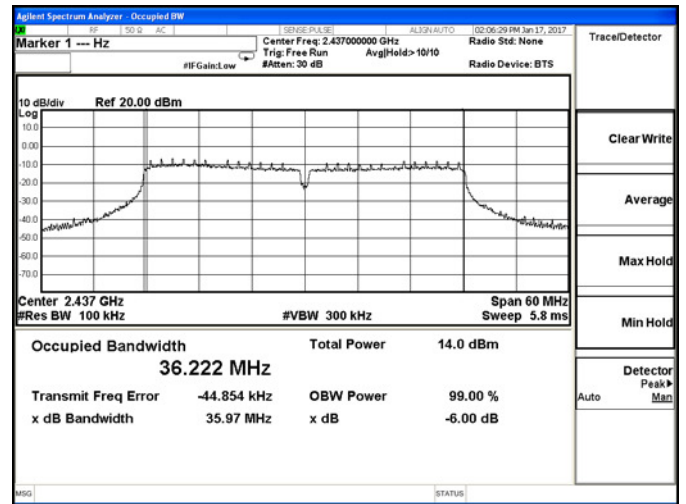
802.11n(HT20)-High channel



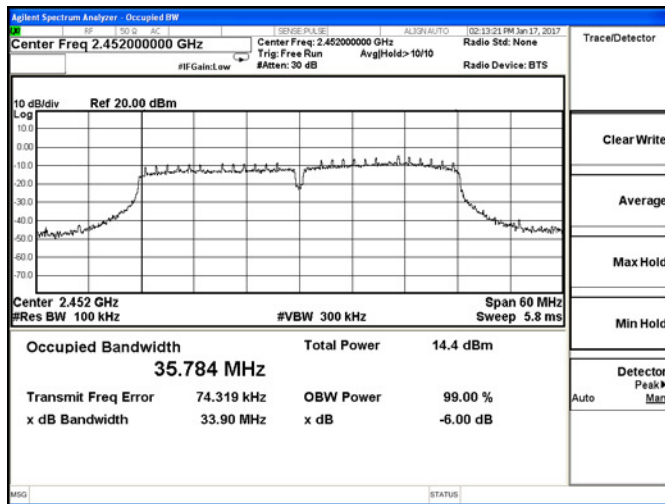
Test plot of 6 dB Bandwidth-ant 0



802.11n(HT40)-Low channel

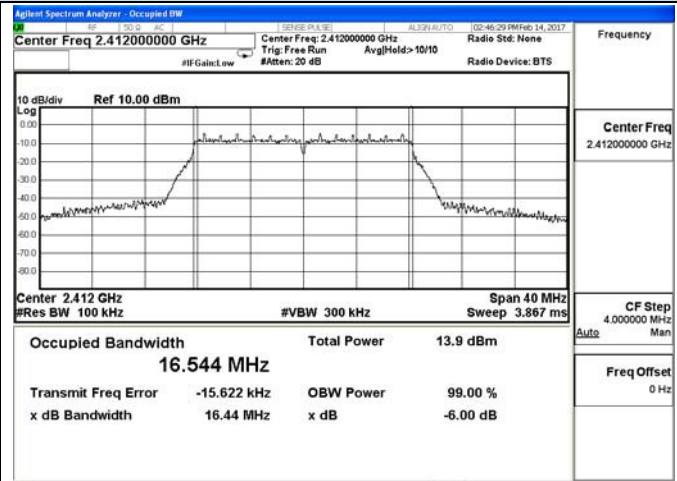
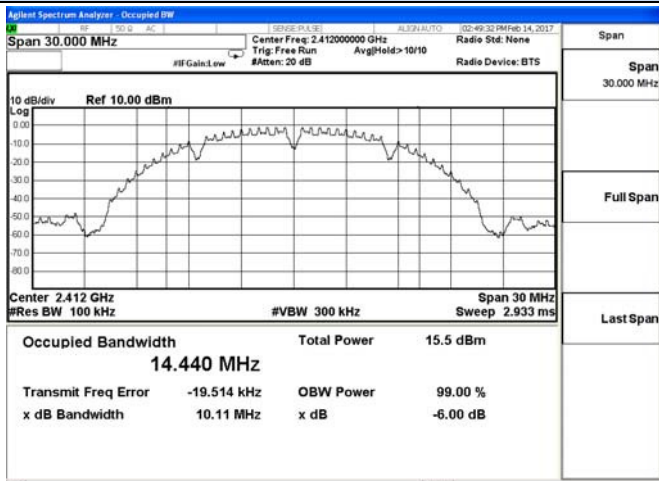


802.11n(HT40)-Mid channel



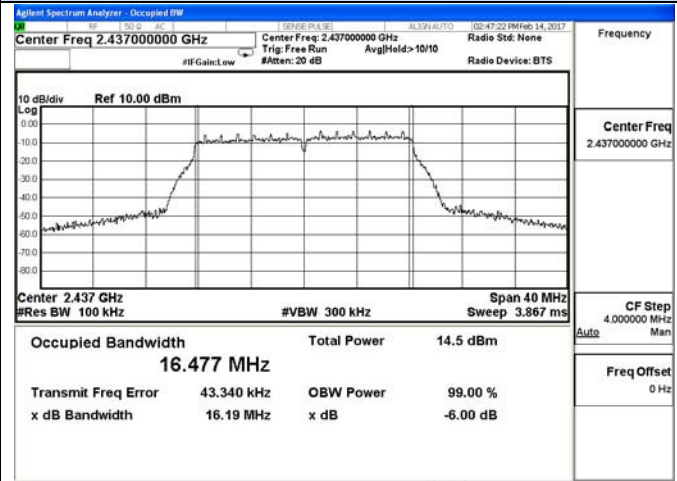
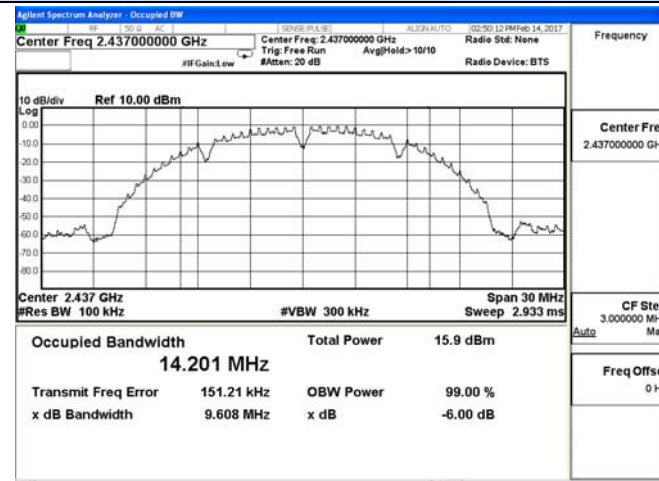
802.11n(HT40)-High channel

Test plot of 6 dB Bandwidth-ant 1



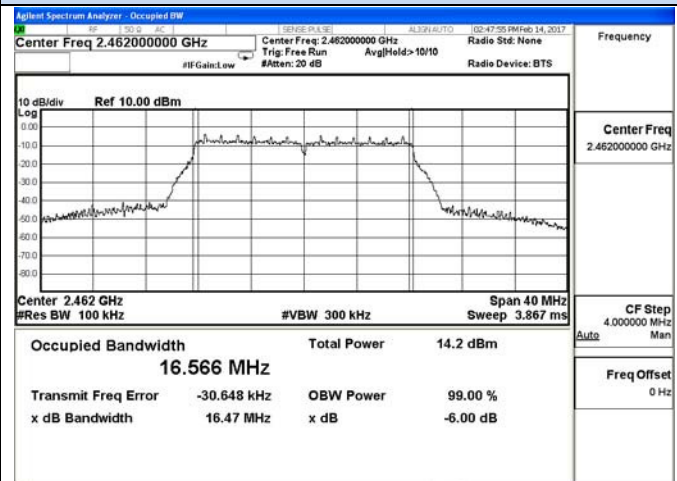
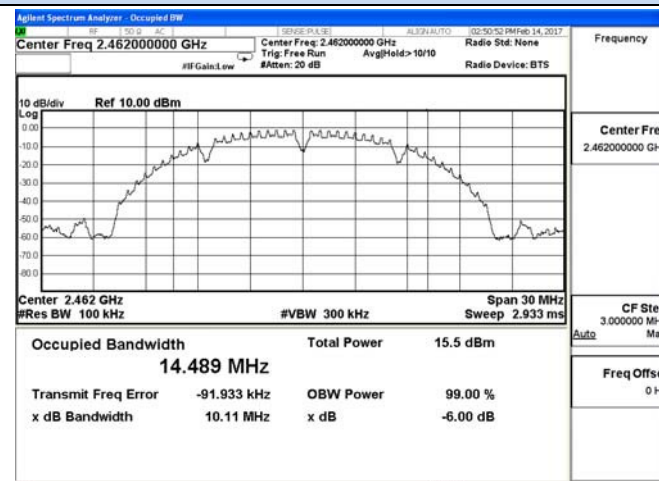
802.11b-Low channel

802.11g-Low channel



802.11b-Middle channel

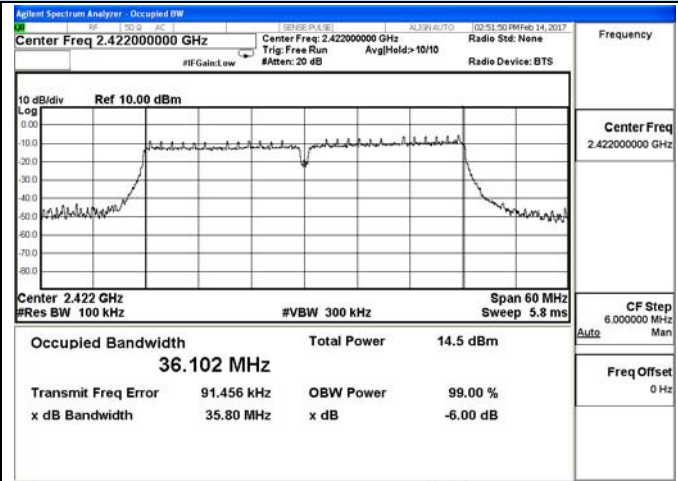
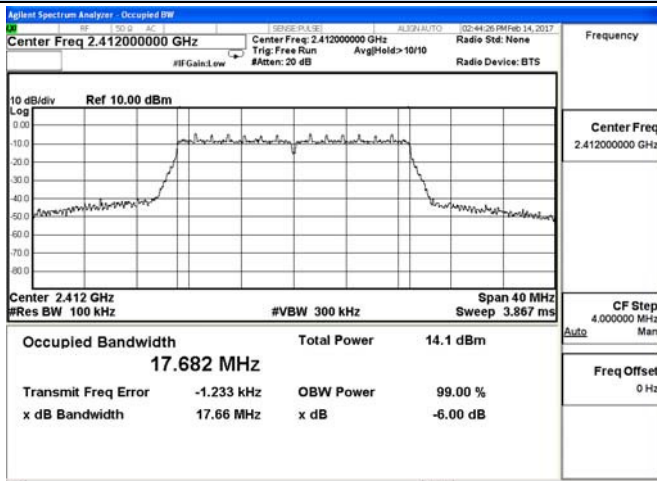
802.11g-Middle channel



802.11b-High channel

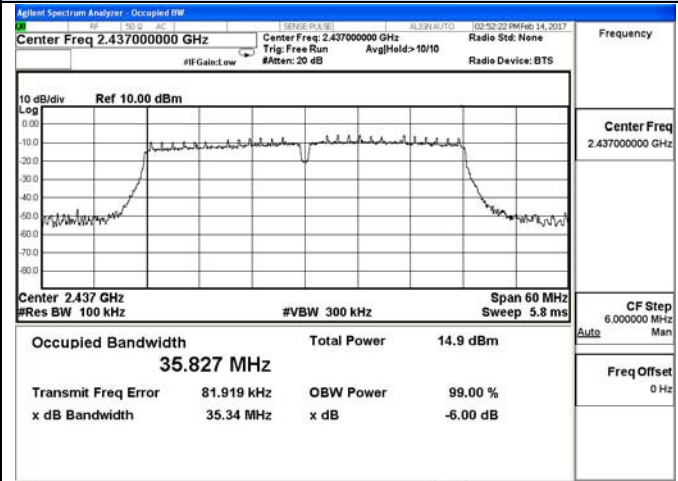
802.11g-High channel

Test plot of 6 dB Bandwidth-ant 1



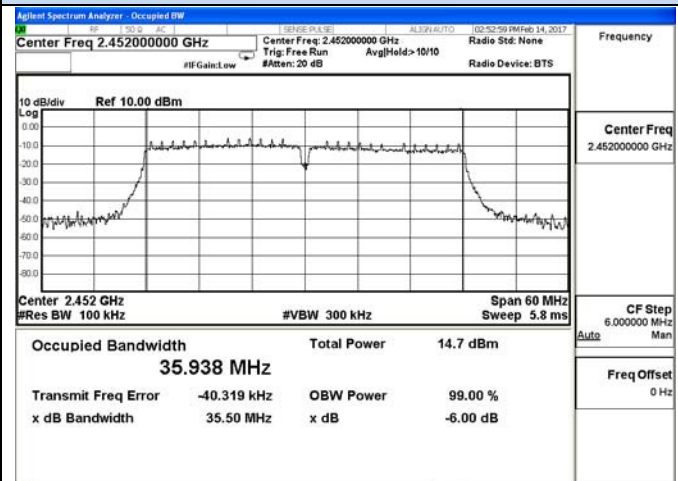
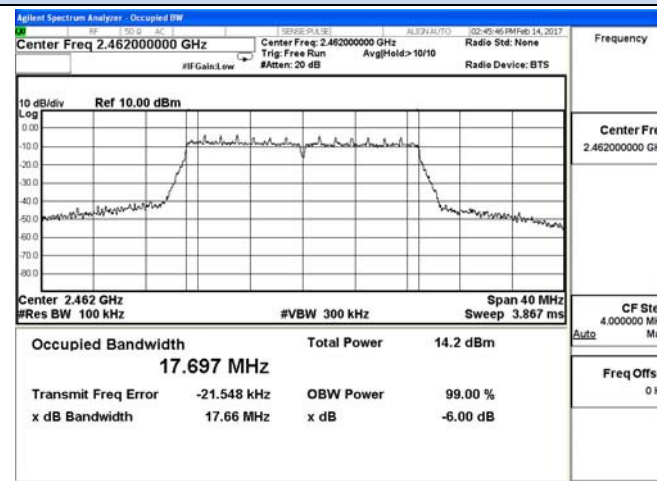
802.11n(HT20)-Low channel

802.11n(HT40)-Low channel



802.11n(HT20)-Middle channel

802.11n(HT40)-Middle channel



802.11n(HT20)-High channel

802.11n(HT40)-High channel