



# TEST REPORT

No. I20N02478-WLAN

for

**TCL Communication Ltd.**

**GSM/UMTS/LTE Mobile phone**

**Model Name: 5007S**

with

**Hardware Version: 03**

**Software Version: v2D23UZ31**

**FCC ID: 2ACCJH130**

**Issued Date: 2020-10-21**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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## 1. Summary of Test Report

### 1.1. Test Items

Description	GSM/UMTS/LTE Mobile phone
Model Name	5007S
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

### 1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013

### 1.3. Test Result

**Pass**

### 1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road,  
Futian District, Shenzhen, Guangdong, P. R. China

### 1.5. Project data

Testing Start Date:	2020-09-07
Testing End Date:	2020-09-25

### 1.6. Signature

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Lin Zechuang

(Prepared this test report)

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Tang Weisheng

(Reviewed this test report)

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Zhang Bojun

(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: TCL Communication Ltd.  
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: Hong Kong  
Postal Code: /  
Country: China  
Telephone: 0086-755-36611722  
Fax: 0086-755-36612000-81722

### **2.2. Manufacturer Information**

Company Name: TCL Communication Ltd.  
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: Hong Kong  
Postal Code: /  
Country: China  
Telephone: 0086-755-36611722  
Fax: 0086-755-36612000-81722

### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Description	GSM/UMTS/LTE Mobile phone
Model name	5007S
FCC ID	2ACCJH130
With WLAN Function	Yes
Frequency Range	ISM 2400MHz~2483.5MHz
Type of Modulation	DSSS/CCK/OFDM
Number of Channels	11
Antenna	Integral Antenna
MAX Conducted Power	23.85dBm
Power Supply	3.85V

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Date of receipt</b>
EUT1	015794000205360	03	v2D23UZ31	2020-09-07
EUT2	015794000205626	03	v2D23UZ31	2020-09-07

\*EUT ID: is used to identify the test sample in the lab internally.

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>		
AE1	Battery	/	/
AE2	charger	/	/
AE3	USB cable	/	/

##### AE1

Model	TLp034G1
Manufacturer	BYD
Capacitance	3500 mAh
Nominal voltage	/

##### AE2

Model	UC13US
Manufacturer	PUAN
Length of cable	/

##### AE3

Model	CDA0000134C2
Manufacturer	SHENGHUA
Length of cable	/

\*AE ID: is used to identify the test sample in the lab internally.



### **3.4. General Description**

The Equipment under Test (EUT) is a model of GSM/UMTS/LTE Mobile phone with integrated antenna and inbuilt battery.

It has Bluetooth (EDR) function.

It consists of normal options: travel charger, USB cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

### **3.5. Interpretation of the Test Environment**

For the test methods, the test environment uncertainty figures correspond to an expansion factor  $k=2$ .

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V



## 4. Reference Documents

### 4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

### 4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz.	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019



## 5. Test Results

### 5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

### 5.2. Test Results

No	Test cases	Sub-clause of Part 15C	Verdict
0	Antenna Requirement	15.203	P
1	Maximum Peak Output Power	15.247 (b)	P
2	Peak Power Spectral Density	15.247 (e)	P
3	Occupied 6dB Bandwidth	15.247 (a)	P
4	Band Edges Compliance	15.247 (d)	P
5	Transmitter Spurious Emission - Conducted	15.247 (d)	P
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	P
7	AC Powerline Conducted Emission	15.107, 15.207	P

Please refer to **ANNEX A** for detail.

### 5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacture as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.



## 6. Test Equipments Utilized

### Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2021-01-15	1 year
2	Power Sensor	U2021XA	MY55430013	Agilent	2021-01-15	1 year
3	Test Receiver	ESCI	100701	Rohde & Schwarz	2021-08-09	1 year
4	LISN	ENV216	102067	Rohde & Schwarz	2021-07-16	1 year

### Radiated test system

NO.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Loop Antenna	HLA6120	35779	TESEQ	2022-04-25	3 years
2	BiLog Antenna	3142E	00224831	ETS-Lindgren	2021-05-17	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2022-04-02	3 years
4	Test Receiver	ESR7	101676	Rohde & Schwarz	2020-11-27	1 year
5	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2021-01-14	1 year
6	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021-07-19	2 years
7	Horn Antenna	QSH-SL-18-26-S-20	17013	Q-par	2023-01-06	3 years

### Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
2	EMC32	Rohde & Schwarz	8.53.0
3	EMC32	Rohde & Schwarz	10.01.00

EUT is engineering software provided by the customer to control the transmitting signal. The EUT was programmed to be in continuously transmitting mode.

### Anechoic Chamber

Fully anechoic Chamber by ETS-Lindgren.

## 7. Measurement Uncertainty

Test Name	Uncertainty ( $k=1.96$ )	
1. Maximum Output Power	0.387dB	
2. Peak Power Spectral Density	0.705dB	
3. DTS 6-dB Signal Bandwidth	60.80Hz	
4. Band Edges Compliance	0.62dB	
5 Transmitter Spurious Emission - Conducted	$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22dB
	$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22dB
	$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22dB
	$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51dB
	$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51dB
	$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59dB
5. Transmitter Spurious Emission - Radiated	9kHz-30MHz	/
	$30\text{MHz} \leq f \leq 1\text{GHz}$	5.40dB
	$1\text{GHz} \leq f \leq 18\text{GHz}$	4.32dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	5.26dB
6. AC Power line Conducted Emission	3.08dB ( $k=2$ )	



## **ANNEX A: Detailed Test Results**

### **A.0 Antenna requirement**

#### **Measurement Limit:**

<b>Standard</b>	<b>Requirement</b>
FCC CRF Part 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

**Conclusion: The Directional gains of antenna used for transmitting is 0dBi.**

**The RF transmitter uses an integrate antenna without connector.**

## A.1. Measurement Method

### A.1.1. Conducted Measurements

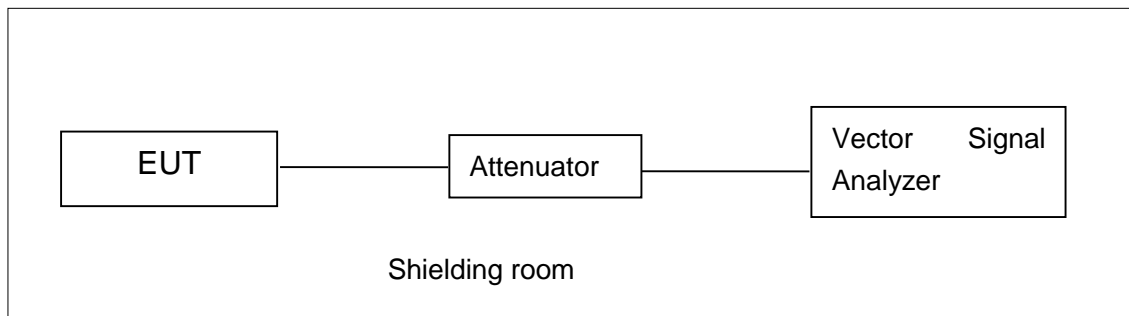
Connect the EUT to the test system as Fig.A.1.1.1 shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzer and start measurement.

Record the values. Vector Signal Analyzer



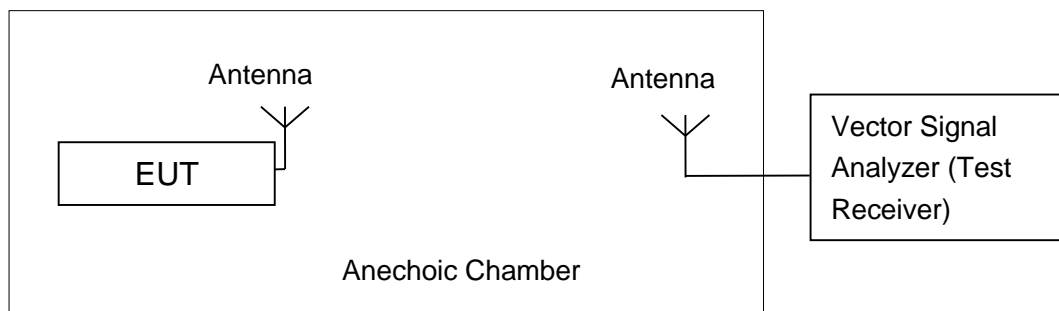
**Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements**

### A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;



**Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements**

## A.2. Maximum Output Power

**Method of Measurement:** See ANSI C63.10-2013-clause 11.9.1.2

- a) Set the RBW = 1 MHz.
- b) Set the VBW = 3 MHz.
- c) Set the span  $\geq [1.5 \times \text{DTS bandwidth}]$ .
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector).

**Measurement Limit:**

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

EUT ID: EUT2

### A.2.1. Peak Output Power-conducted

**Measurement Results:**

802.11b/g mode

Mode	Data Rate (Mbps)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	1	20.17	/	/
	2	20.60	/	/
	5.5	21.86	/	/
	11	23.37	23.10	23.37
802.11g	6	22.75	/	/
	9	22.97	/	/
	12	22.70	/	/
	18	22.68	/	/
	24	23.21	/	/
	36	23.17	/	/
	48	23.66	23.45	23.85
	54	23.64	/	/

The data rate 11Mbps and 48Mbps are selected as worse condition, and the following cases are performed with this condition.

**802.11n-HT20 mode**

Mode	Data Rate (Index)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (20MHz)	MCS0	21.75	/	/
	MCS1	21.63	/	/
	MCS2	21.62	/	/
	MCS3	22.05	/	/
	MCS4	22.13	/	/
	MCS5	22.49	/	/
	MCS6	22.46	/	/
	MCS7	22.59	22.37	22.69

The data rate MCS7 is selected as worse condition, and the following cases are performed with this condition.

**802.11n-HT40 mode**

Mode	Data Rate (Index)	Test Result (dBm)		
		2422MHz (Ch3)	2437MHz (Ch6)	2452 MHz (Ch9)
802.11n (40MHz)	MCS0	18.23	/	/
	MCS1	18.07	/	/
	MCS2	18.03	/	/
	MCS3	18.48	/	/
	MCS4	18.31	/	/
	MCS5	18.90	/	/
	MCS6	18.98	18.91	19.15
	MCS7	18.92	/	/

The data rate MCS6 is selected as worse condition, and the following cases are performed with this condition.

**Conclusion: Pass**

### A.3. Peak Power Spectral Density

**Method of Measurement: See ANSI C63.10-2013-clause 11.10.2**

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to  $RBW = 3 \text{ kHz}$ .
- d) Set the VBW = 10 kHz.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.

**Measurement Limit:**

Standard	Limit
FCC CRF Part 15.247(e)	< 8 dBm/3 kHz

**Measurement Results:**

#### 802.11b/g mode

Mode	Channel	Power Spectral Density ( dBm/3 kHz )		Conclusion
		Fig.	Value	
802.11b	1	Fig.1.	-7.32	P
	6	Fig.2.	-8.50	P
	11	Fig.3.	-8.80	P
802.11g	1	Fig.4.	-12.54	P
	6	Fig.5.	-13.19	P
	11	Fig.6.	-12.15	P

#### 802.11n-HT20 mode

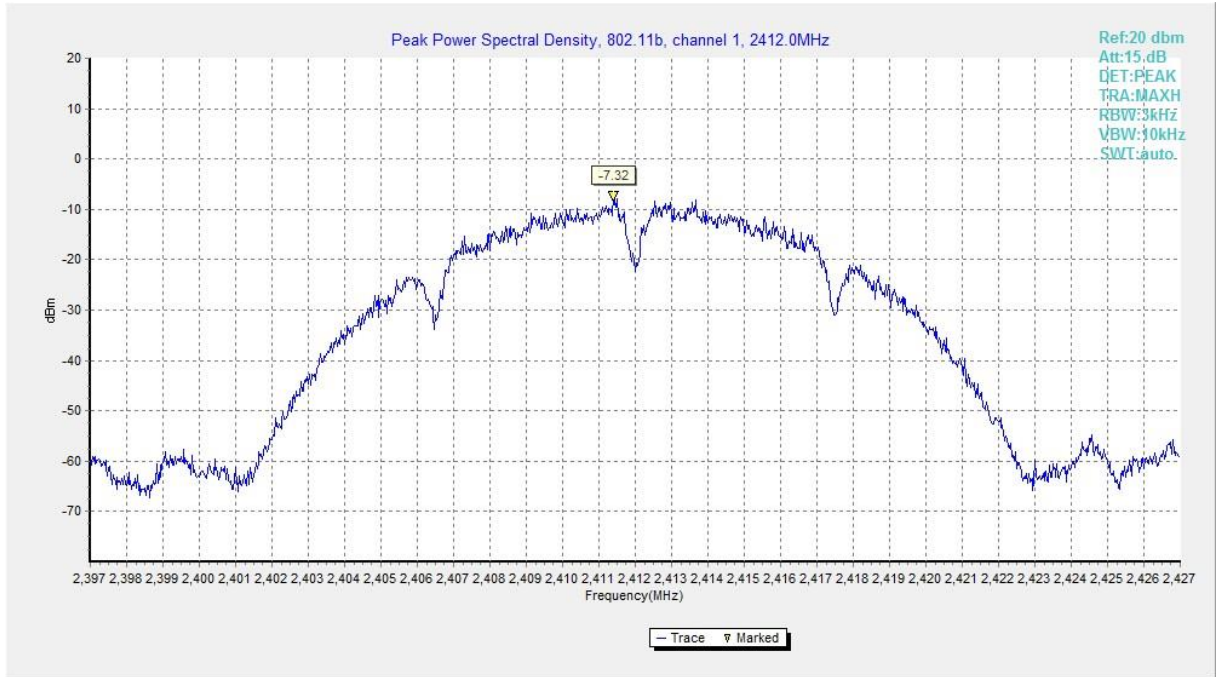
Mode	Channel	Power Spectral Density ( dBm/3 kHz )		Conclusion
		Fig.	Value	
802.11n (HT20)	1	Fig.7.	-12.72	P
	6	Fig.8.	-14.05	P
	11	Fig.9.	-13.33	P

#### 802.11n-HT40 mode

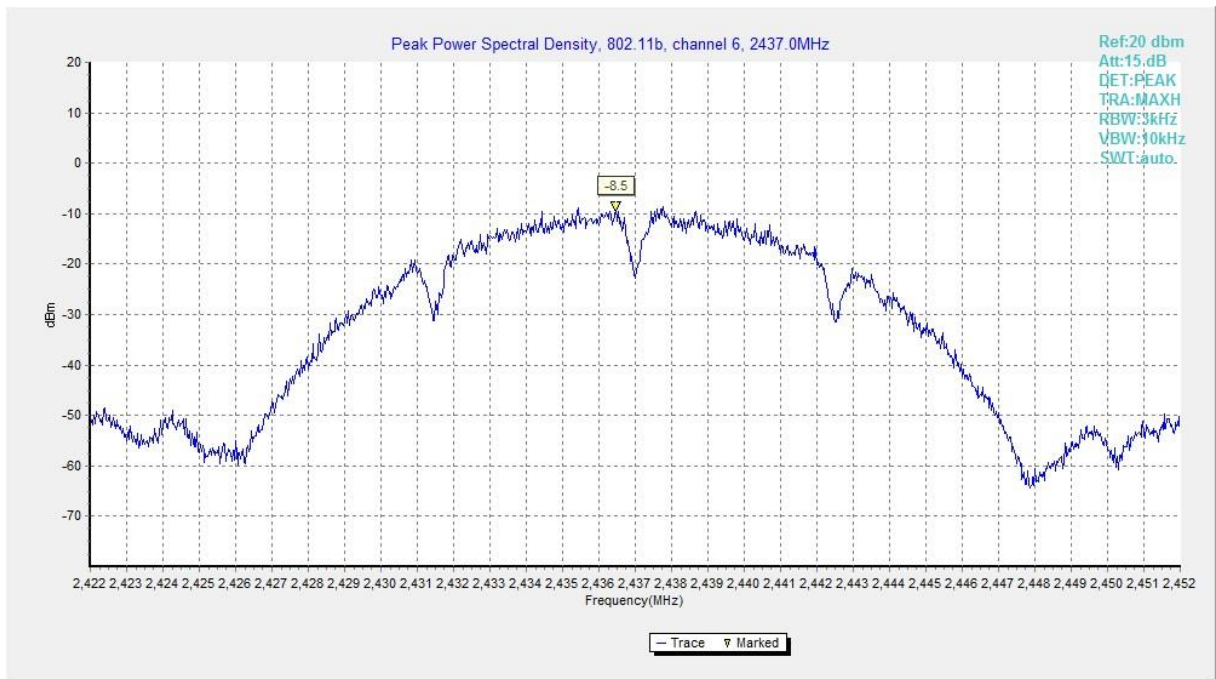
Mode	Channel	Power Spectral Density ( dBm/3 kHz )		Conclusion
		Fig.	Value	
802.11n (HT40)	3	Fig.10.	-19.12	P
	6	Fig.11.	-21.63	P
	9	Fig.12.	-19.18	P

**Conclusion: Pass**

Test graphs as below:



**Fig.1. Power Spectral Density(802.11b,Ch1)**



**Fig.2. Power Spectral Density (802.11b, Ch 6)**



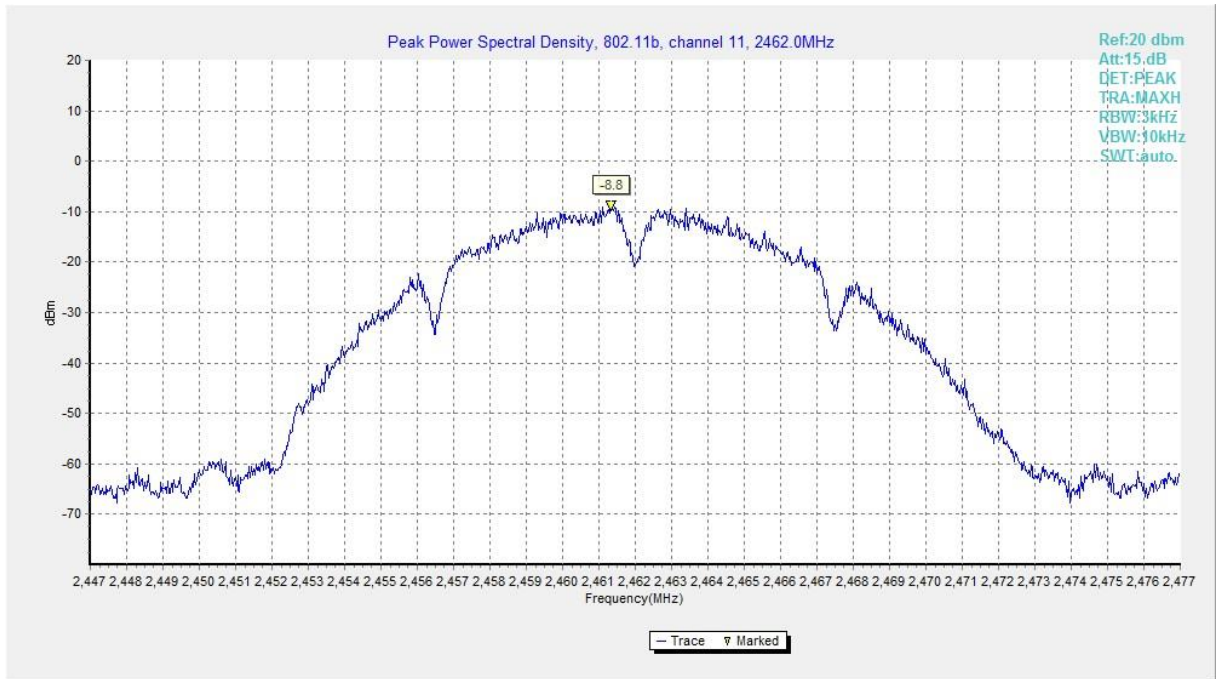


Fig.3. Power Spectral Density (802.11b, Ch 11)

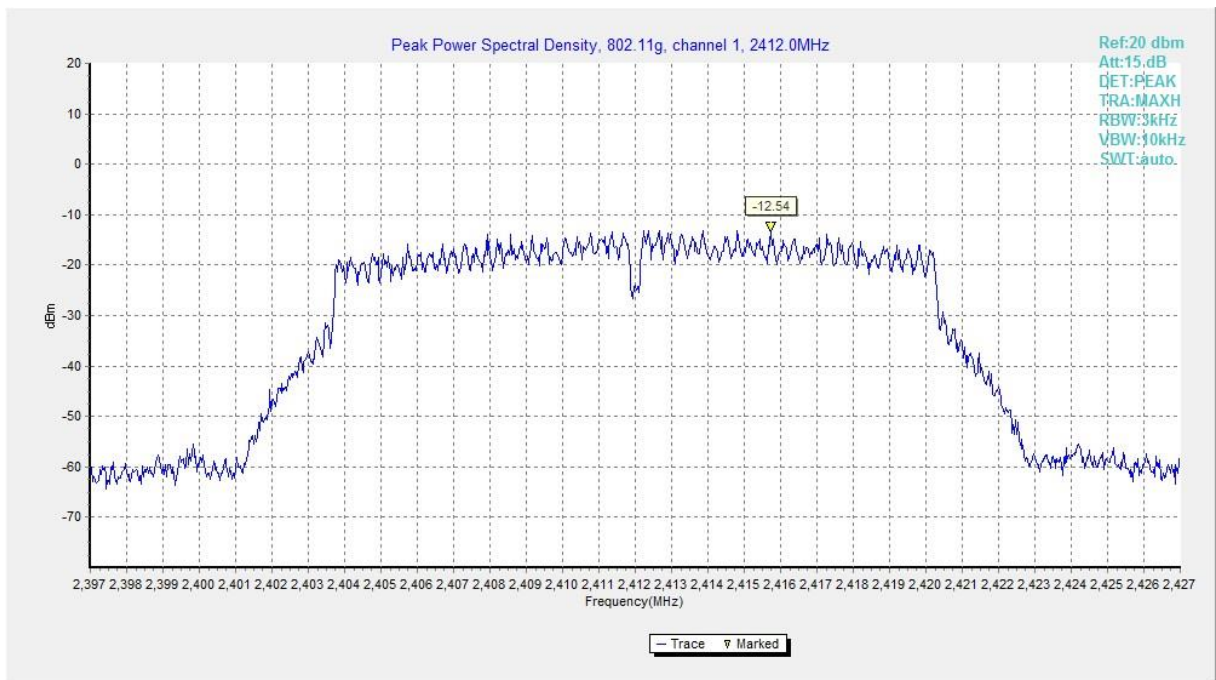
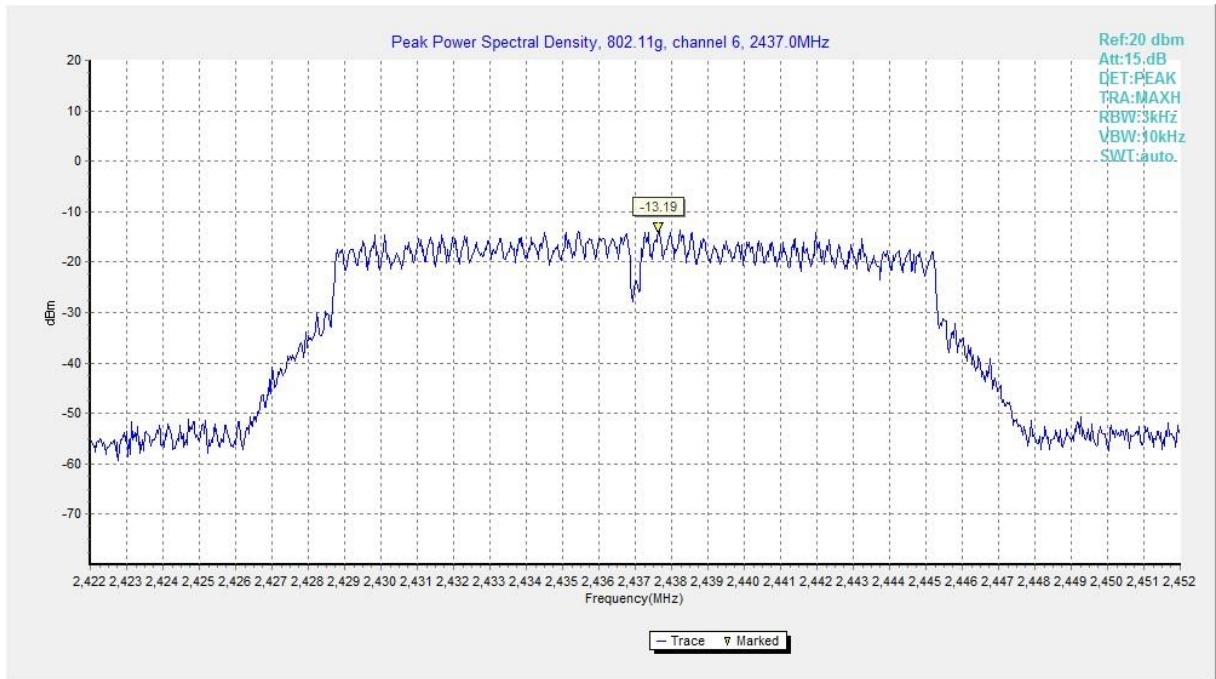
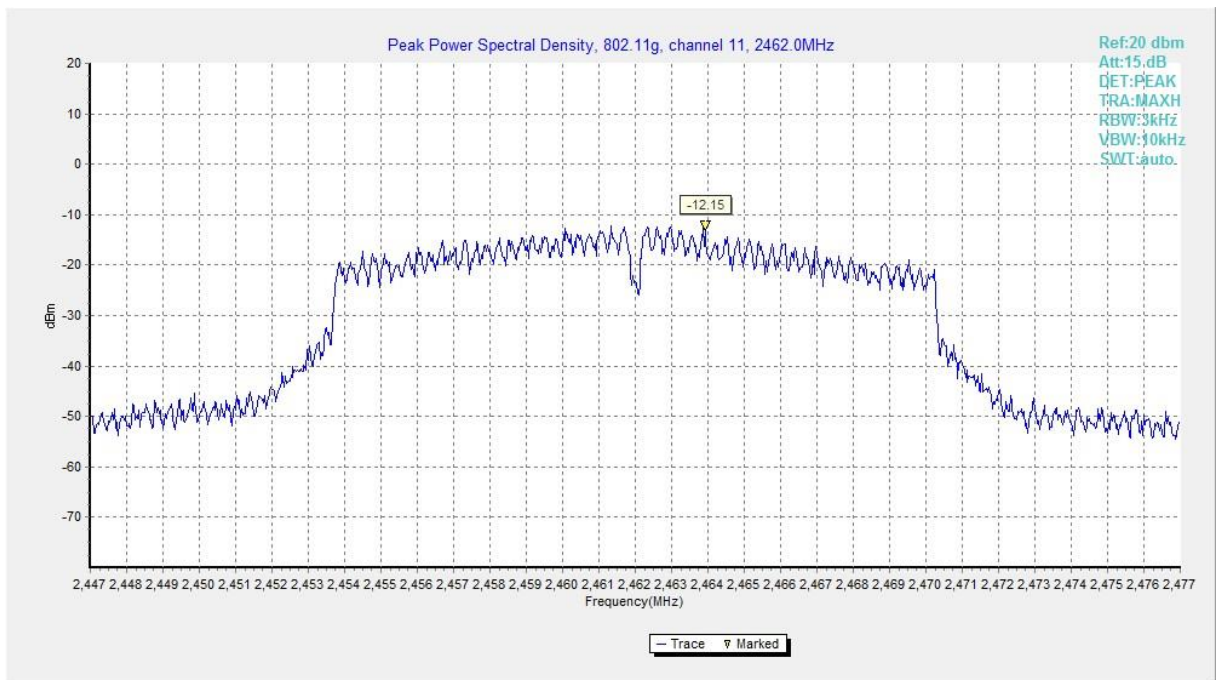


Fig.4. Power Spectral Density (802.11g, Ch 1)



**Fig.5. Power Spectral Density (802.11g, Ch 6)**



**Fig.6. Power Spectral Density (802.11g, Ch 11)**

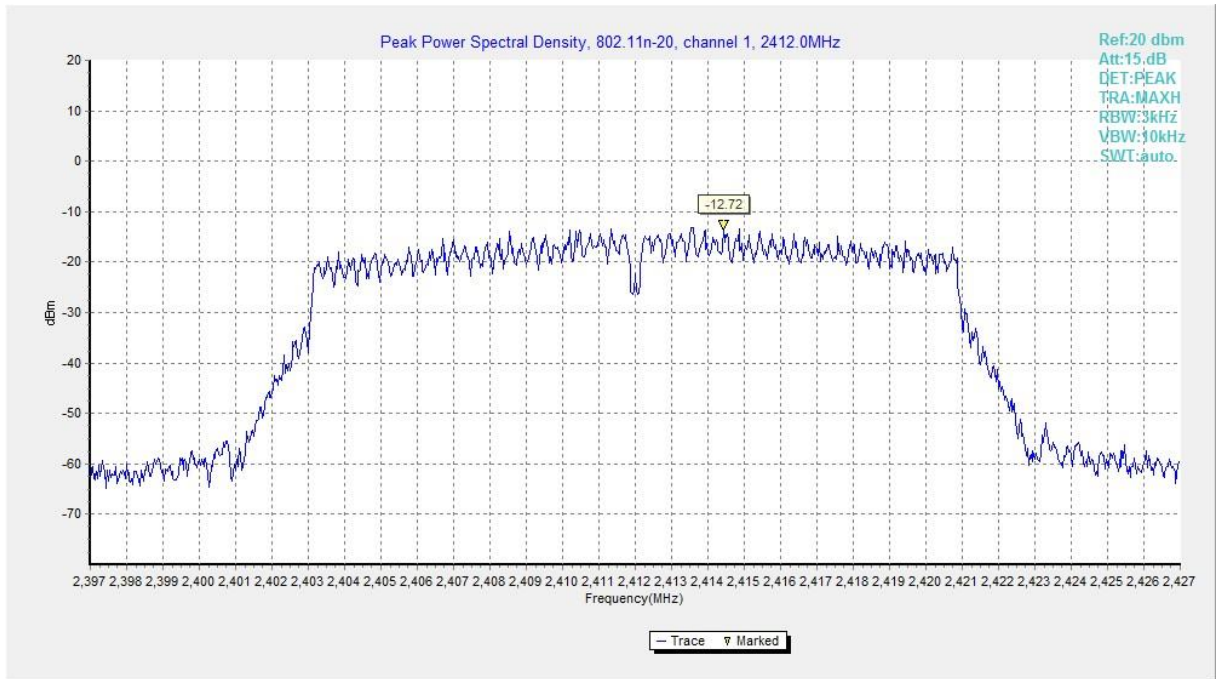


Fig.7. Power Spectral Density (802.11n-HT20, Ch 1)

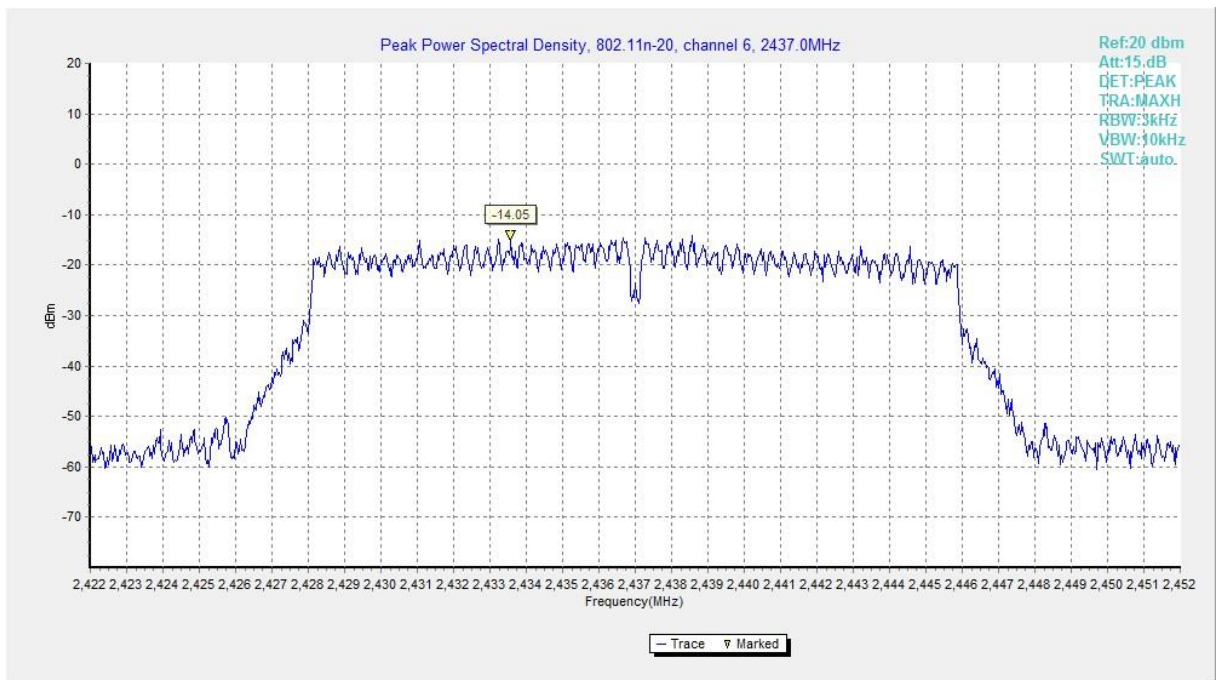
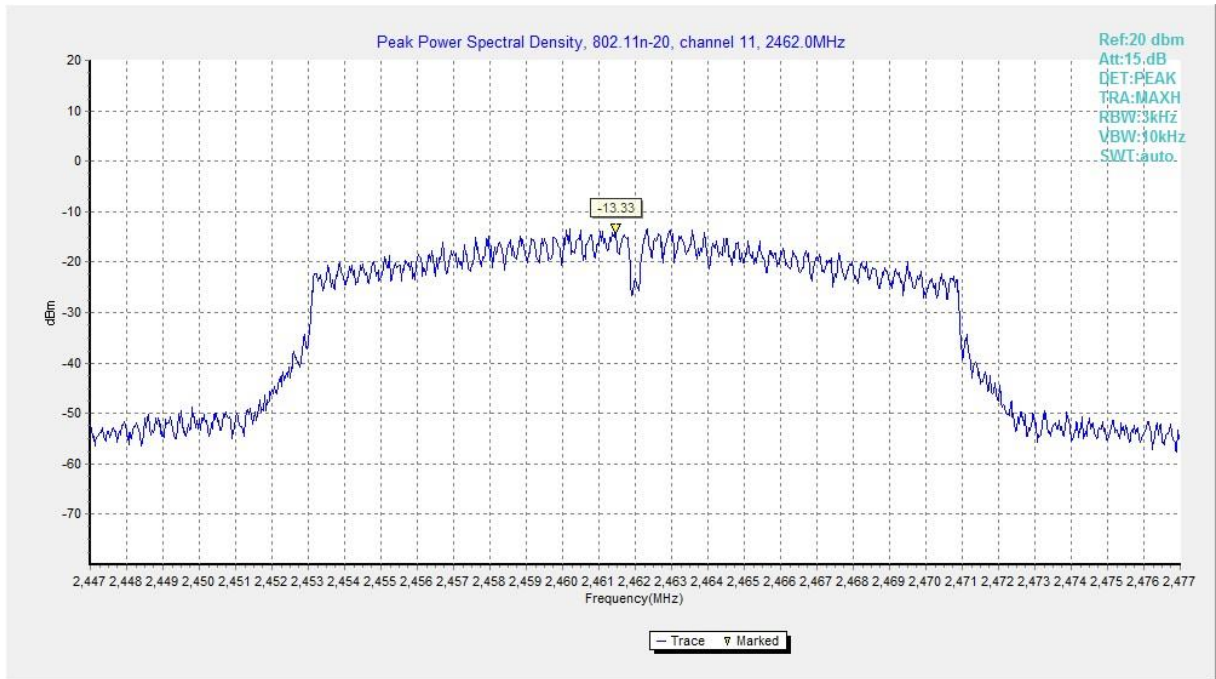
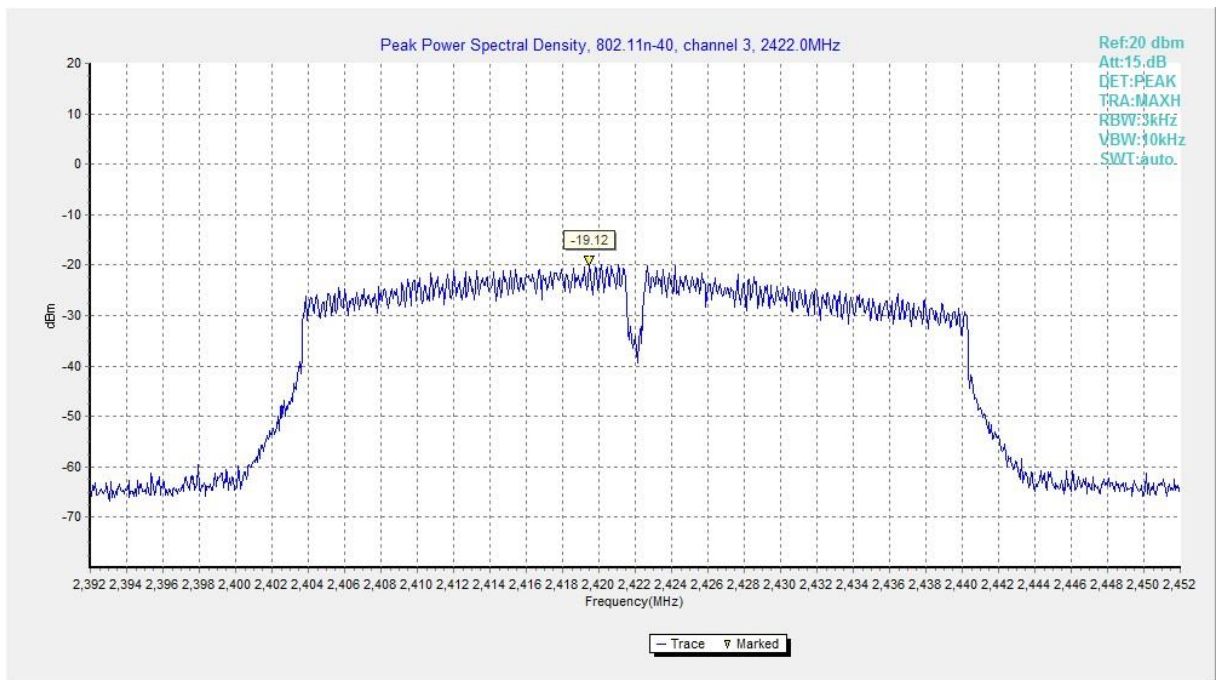


Fig.8. Power Spectral Density (802.11n-HT20, Ch 6)



**Fig.9. Power Spectral Density (802.11n-HT20, Ch 11)**



**Fig.10. Power Spectral Density (802.11n-HT40, Ch 3)**

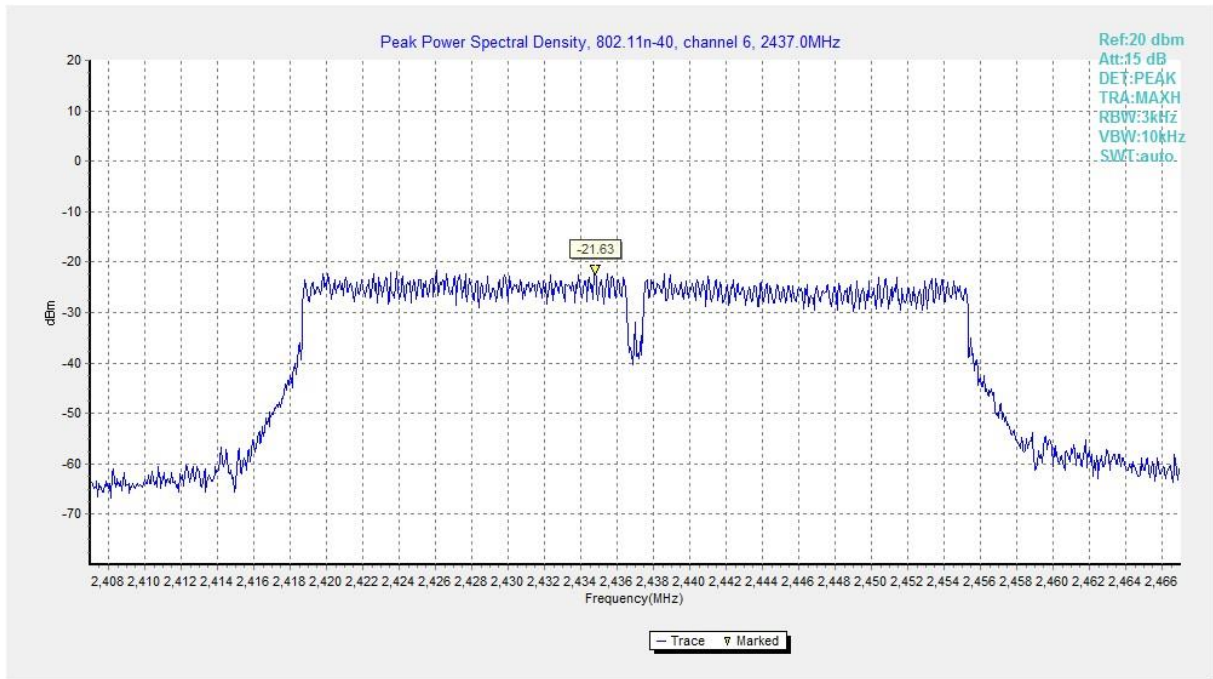


Fig.11. Power Spectral Density (802.11n-HT40, Ch 6)

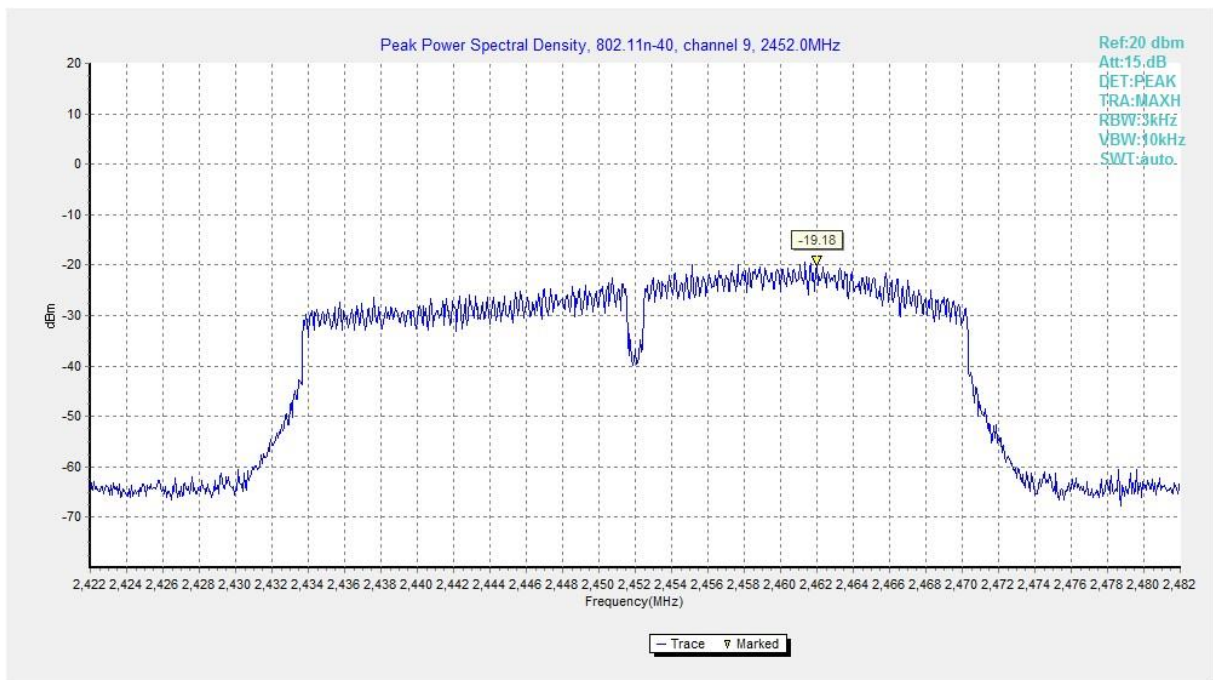


Fig.12. Power Spectral Density (802.11n-HT40, Ch 9)

#### A.4. DTS 6-dB Signal Bandwidth

**Method of Measurement: See ANSI C63.10-2013 section 11.8.1.**

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) = 300 kHz.
- 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.

**Measurement Limit:**

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

**EUT ID: EUT2**

**Measurement Result:**

##### 802.11b/g mode

Mode	Channel	Occupied 6dB Bandwidth ( MHz)		conclusion
802.11b	1	Fig.13.	8.50	P
	6	Fig.14.	8.05	P
	11	Fig.15.	7.55	P
802.11g	1	Fig.16.	16.05	P
	6	Fig.17.	16.30	P
	11	Fig.18.	15.40	P

##### 802.11n-HT20 mode

Mode	Channel	Occupied 6dB Bandwidth ( MHz)		conclusion
802.11n (HT20)	1	Fig.19.	17.30	P
	6	Fig.20.	17.60	P
	11	Fig.21.	15.80	P

##### 802.11n-HT40 mode

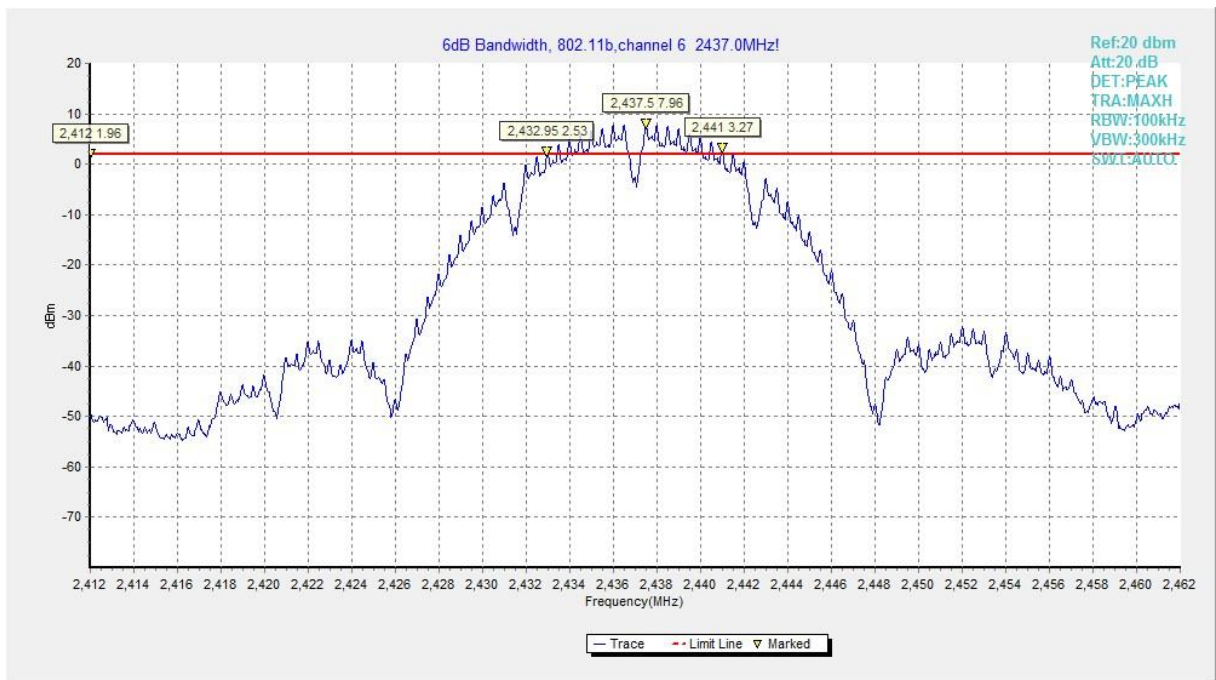
Mode	Channel	Occupied 6dB Bandwidth ( MHz)		conclusion
802.11n (HT40)	3	Fig.22.	35.68	P
	6	Fig.23.	36.48	P
	9	Fig.24.	27.76	P

**Conclusion: Pass**

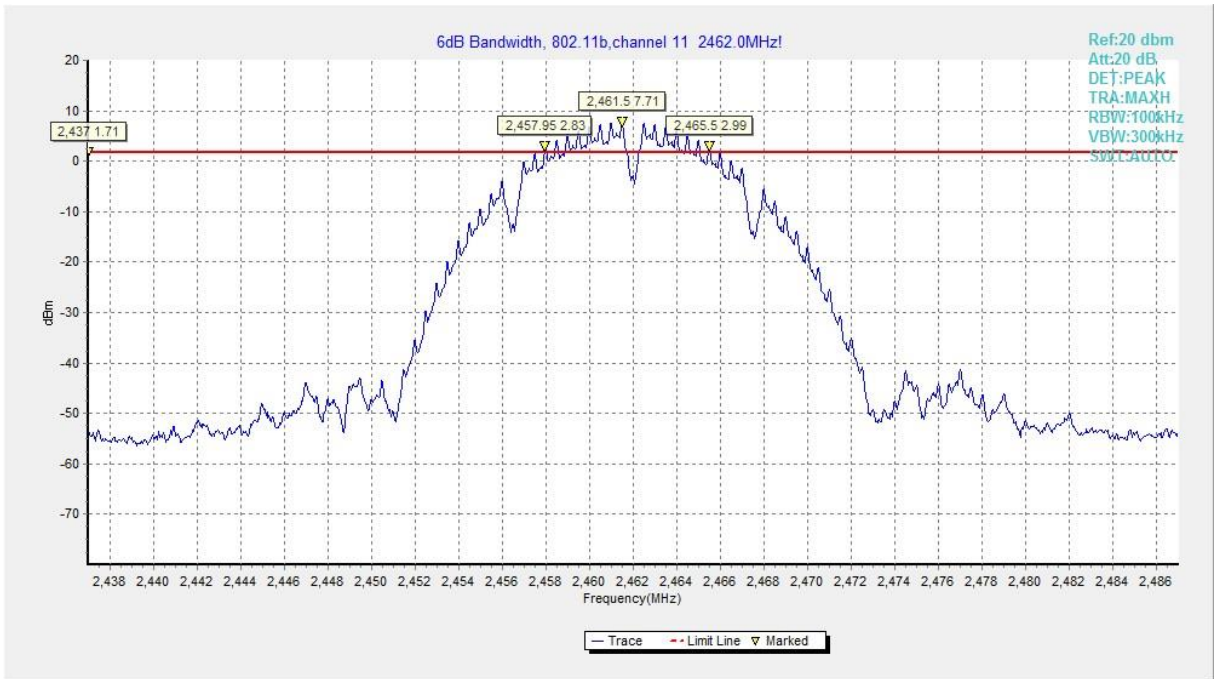
Test graphs as below:



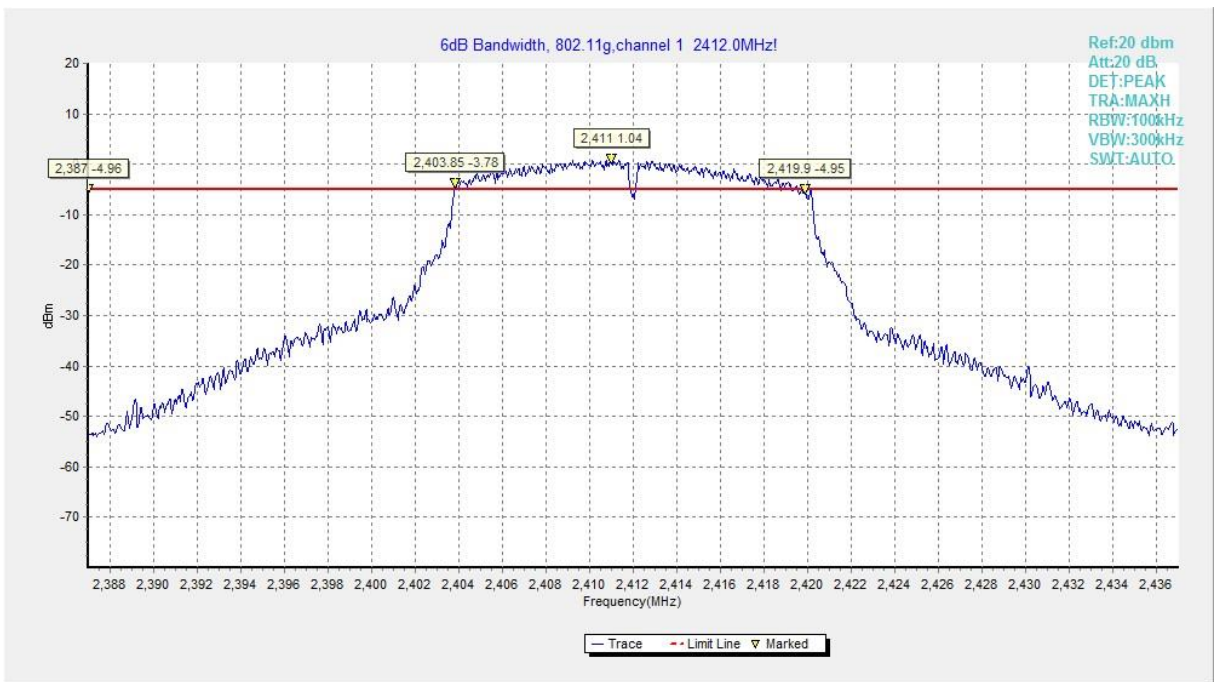
**Fig.13. Occupied 6dB Bandwidth(802.11b,Ch 1)**



**Fig.14. Occupied 6dB Bandwidth (802.11b, Ch 6)**

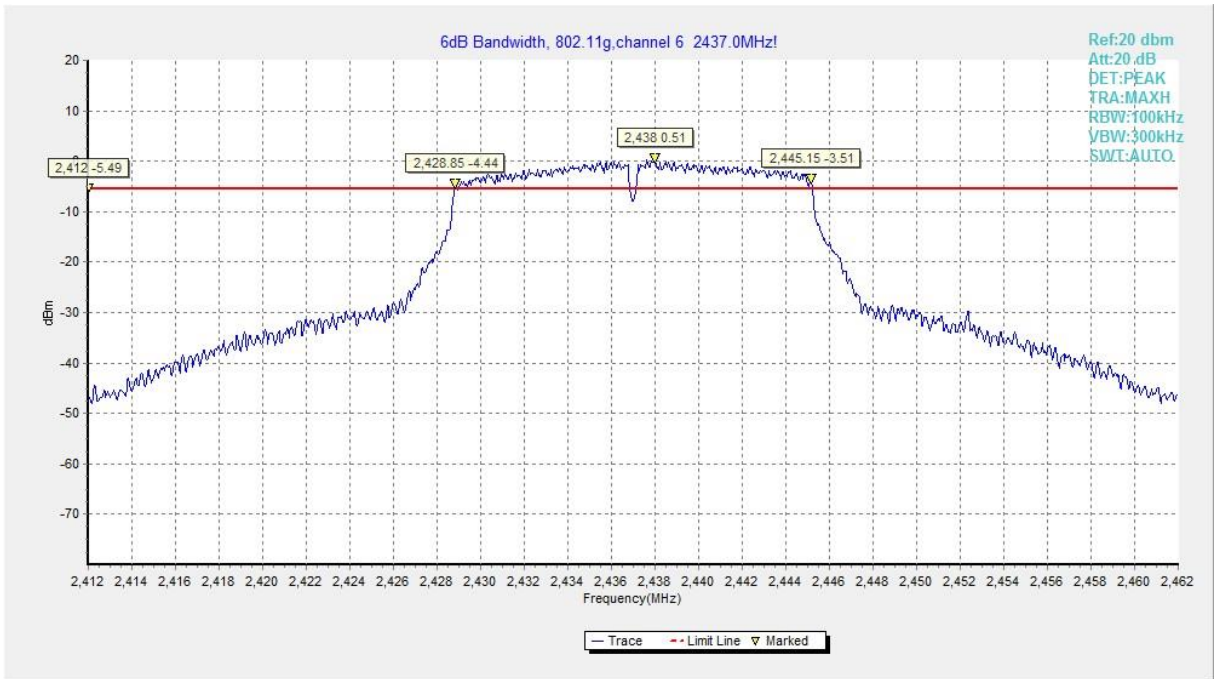


**Fig.15. Occupied 6dB Bandwidth (802.11b, Ch 11)**

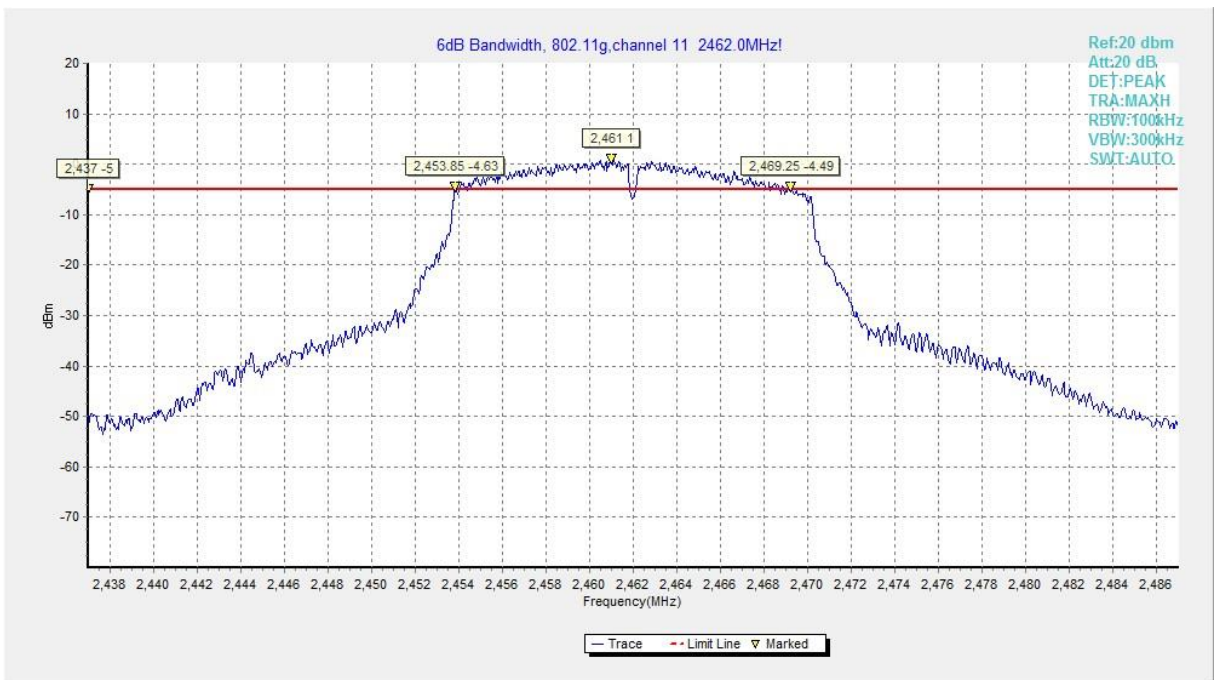


**Fig.16. Occupied 6dB Bandwidth (802.11g, Ch 1)**

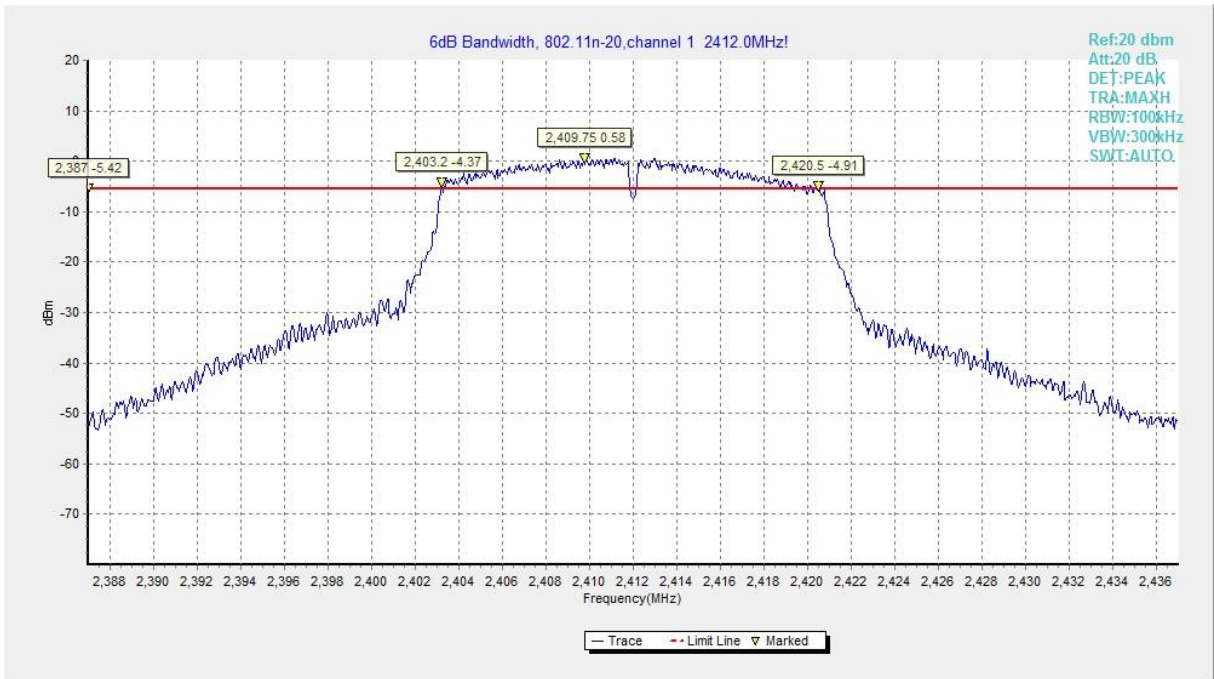




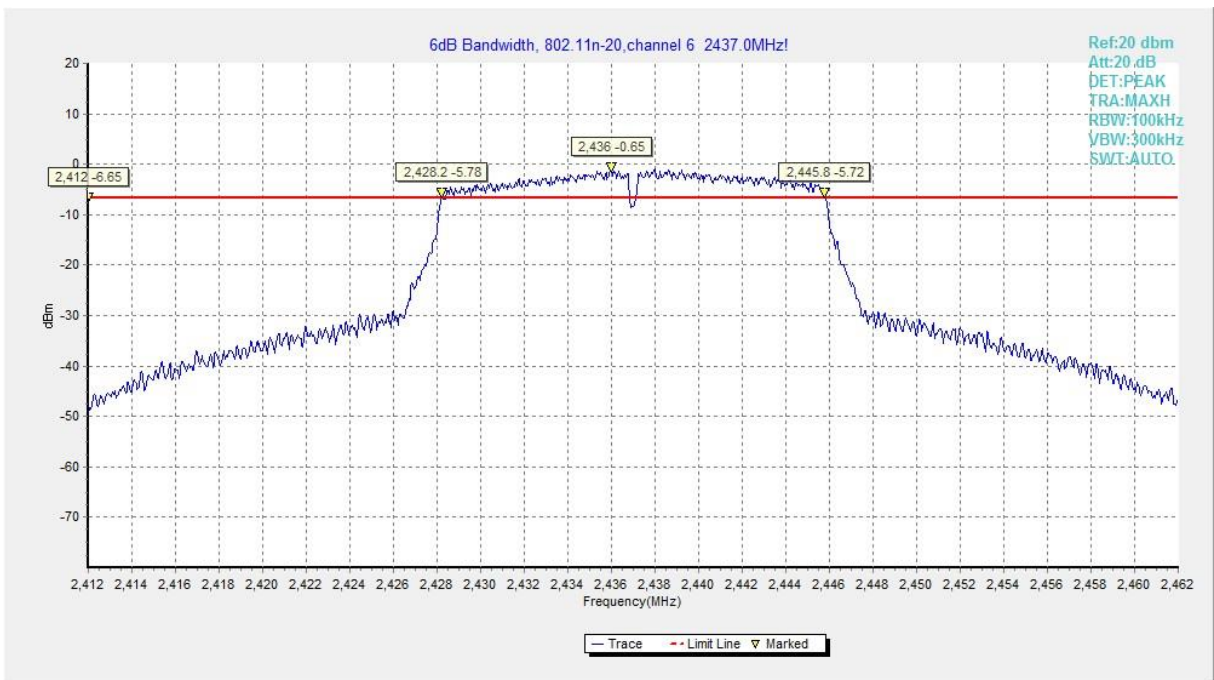
**Fig.17. Occupied 6dB Bandwidth (802.11g, Ch 6)**



**Fig.18. Occupied 6dB Bandwidth (802.11g, Ch 11)**



**Fig.19. Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)**



**Fig.20. Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)**

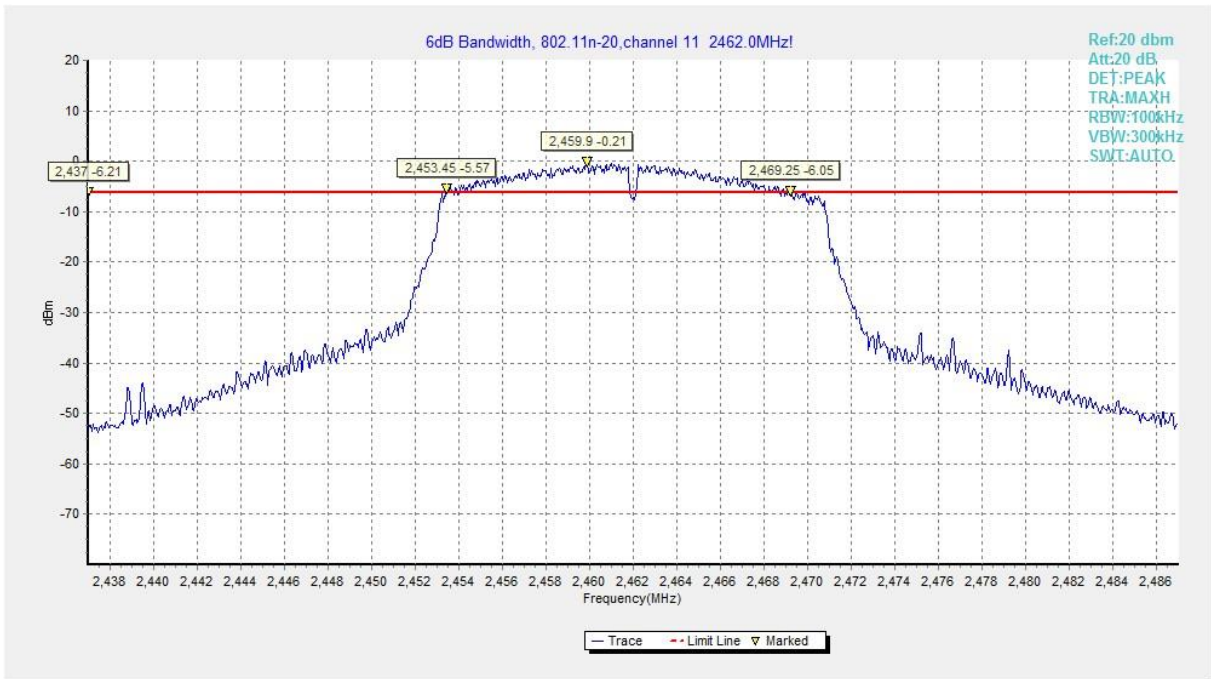


Fig.21. Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

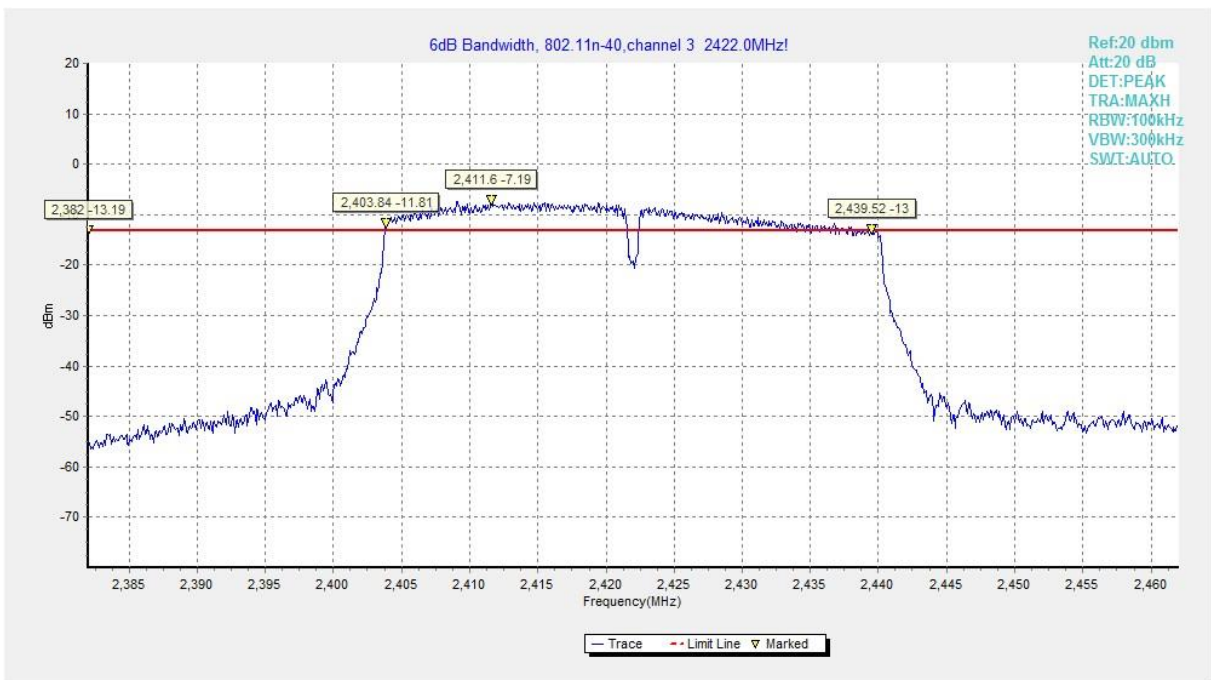
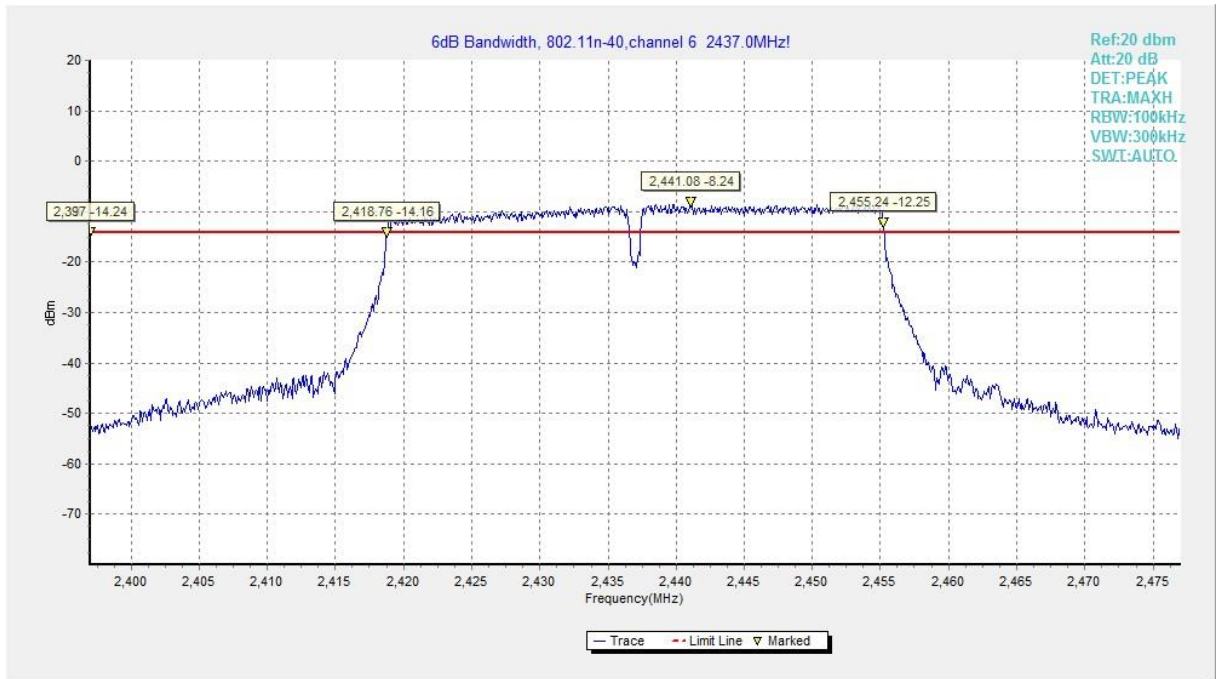
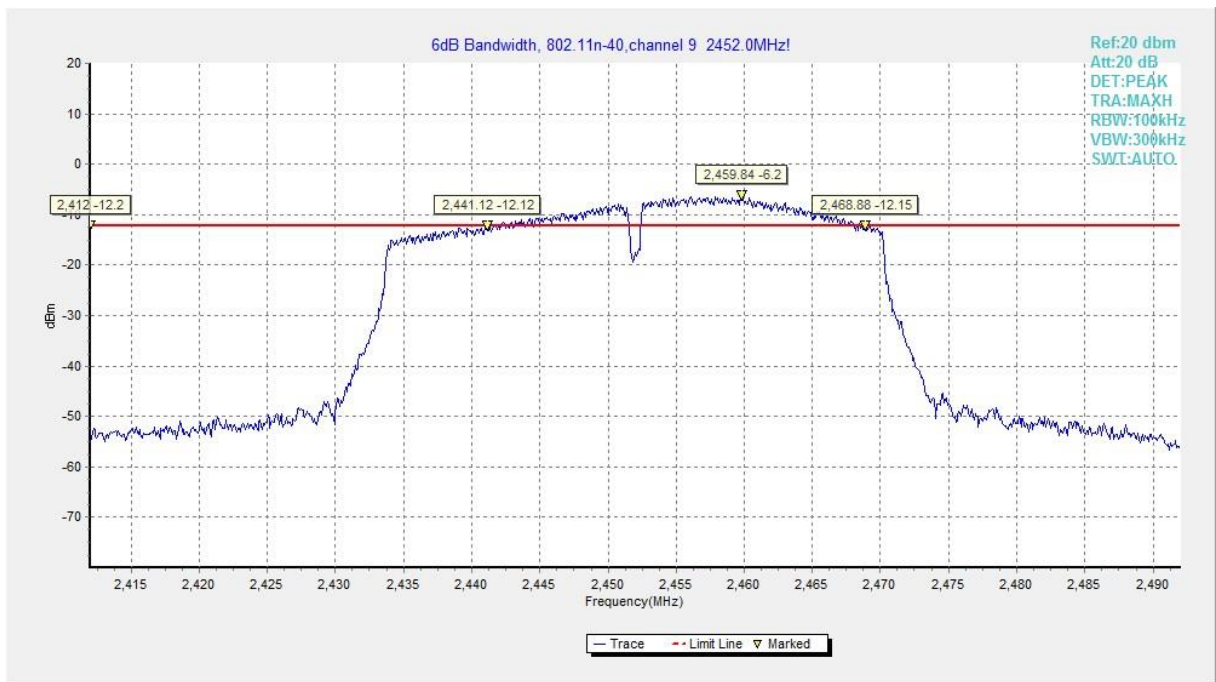


Fig.22. Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)



**Fig.23. Occupied 6dB Bandwidth (802.11n-HT40, Ch 6)**



**Fig.24. Occupied 6dB Bandwidth (802.11n-HT40, Ch 9)**

## A.5. Band Edges Compliance

### Method of Measurement: See ANSI C63.10-2013-clause 6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

### Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

EUT ID: EUT2

### Measurement Result:

#### 802.11b/g mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.25.	P
	11	Fig.26.	P
802.11g	1	Fig.27.	P
	11	Fig.28.	P

#### 802.11n-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11n (HT20)	1	Fig.29.	P
	11	Fig.30.	P

#### 802.11n-HT40 mode

Mode	Channel	Test Results	Conclusion
802.11n (HT40)	3	Fig.31.	P
	9	Fig.32.	P

**Conclusion: Pass**

Test graphs as below:

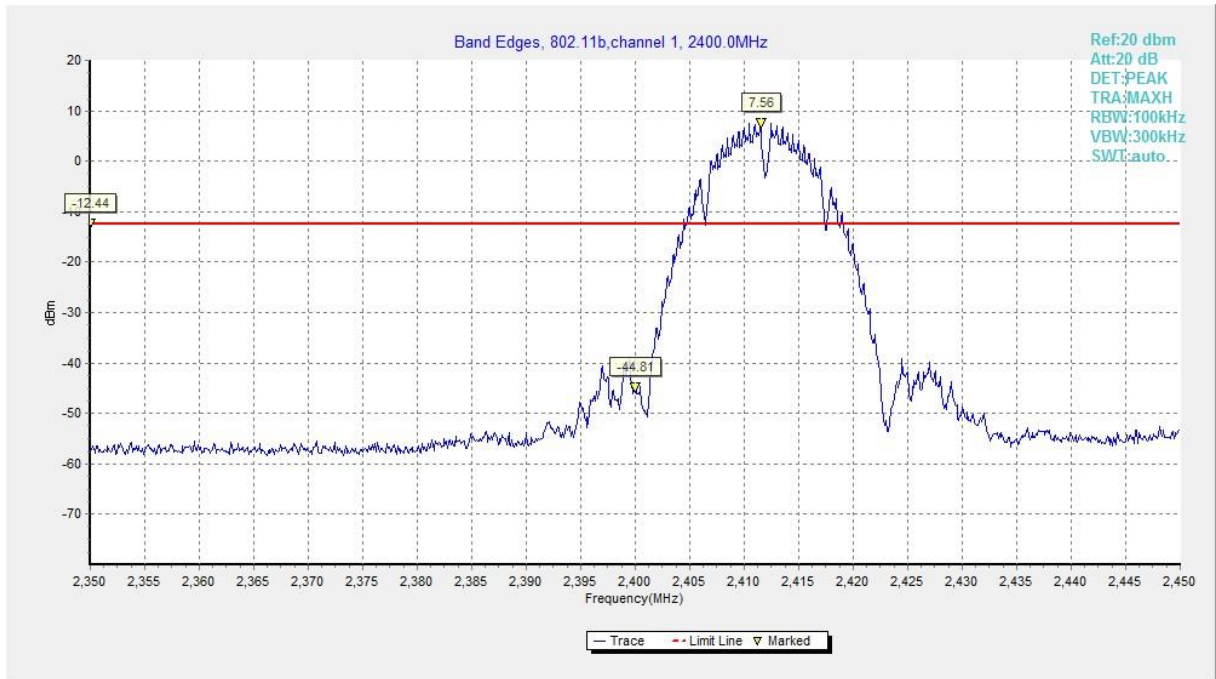


Fig.25. Band Edges (802.11b, Ch 1)

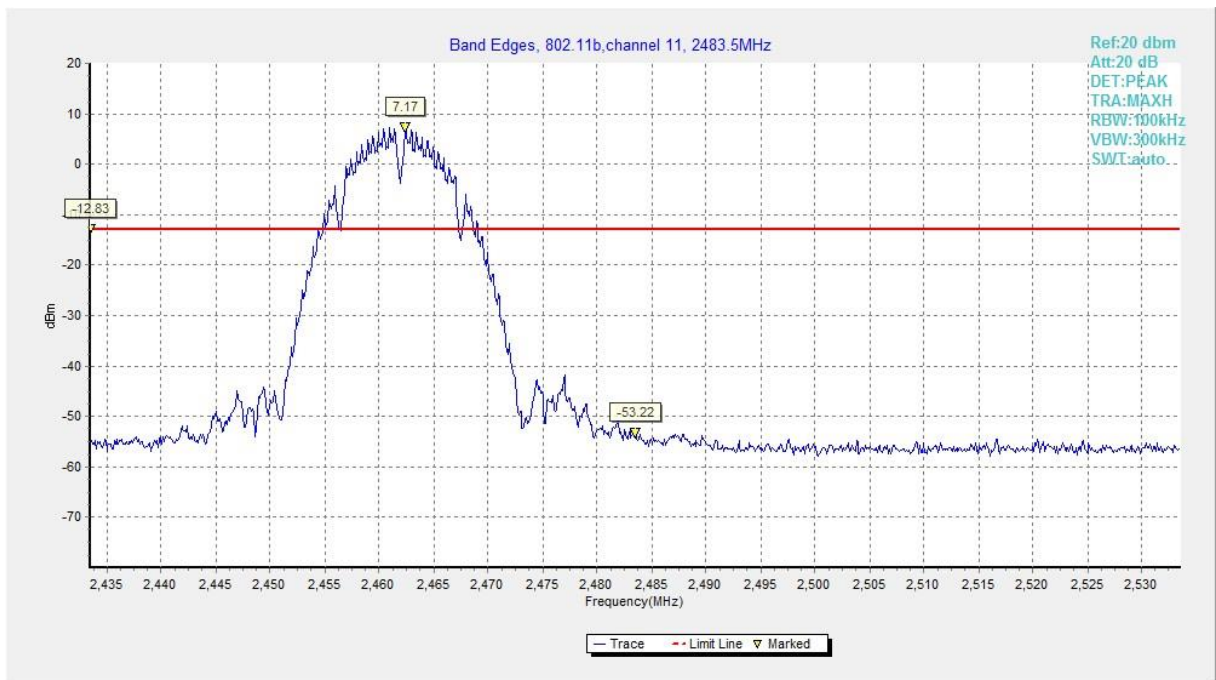


Fig.26. Band Edges (802.11b, Ch 11)

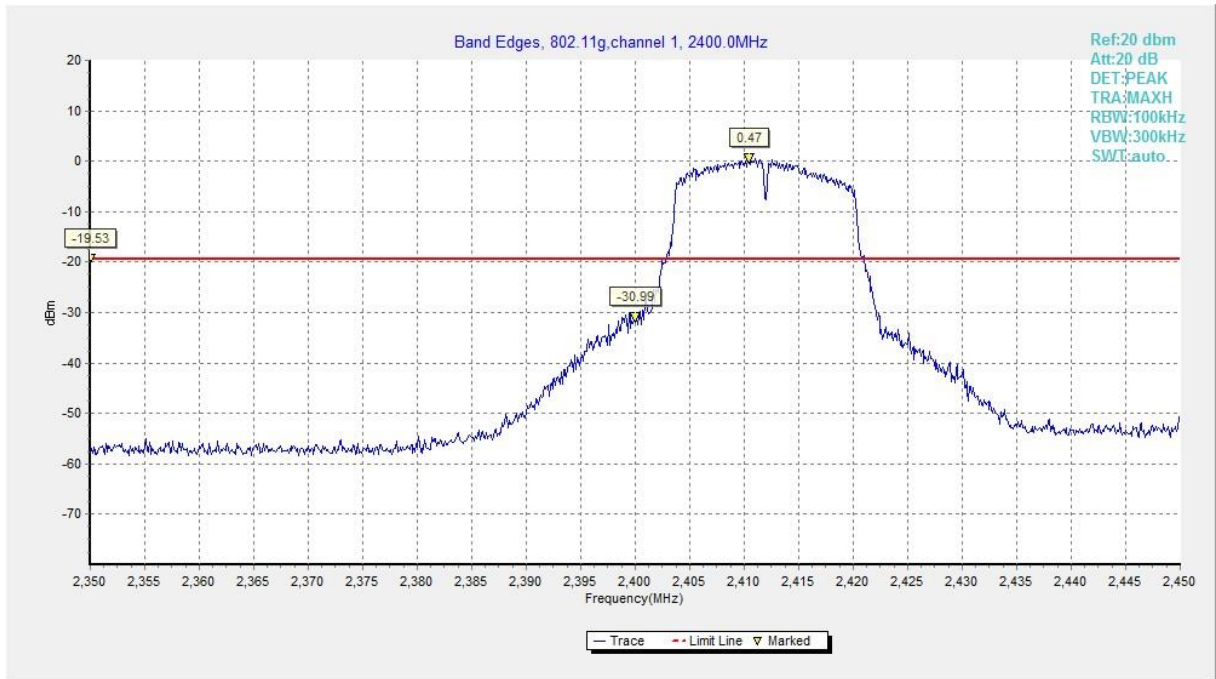


Fig.27. Band Edges (802.11g, Ch 1)

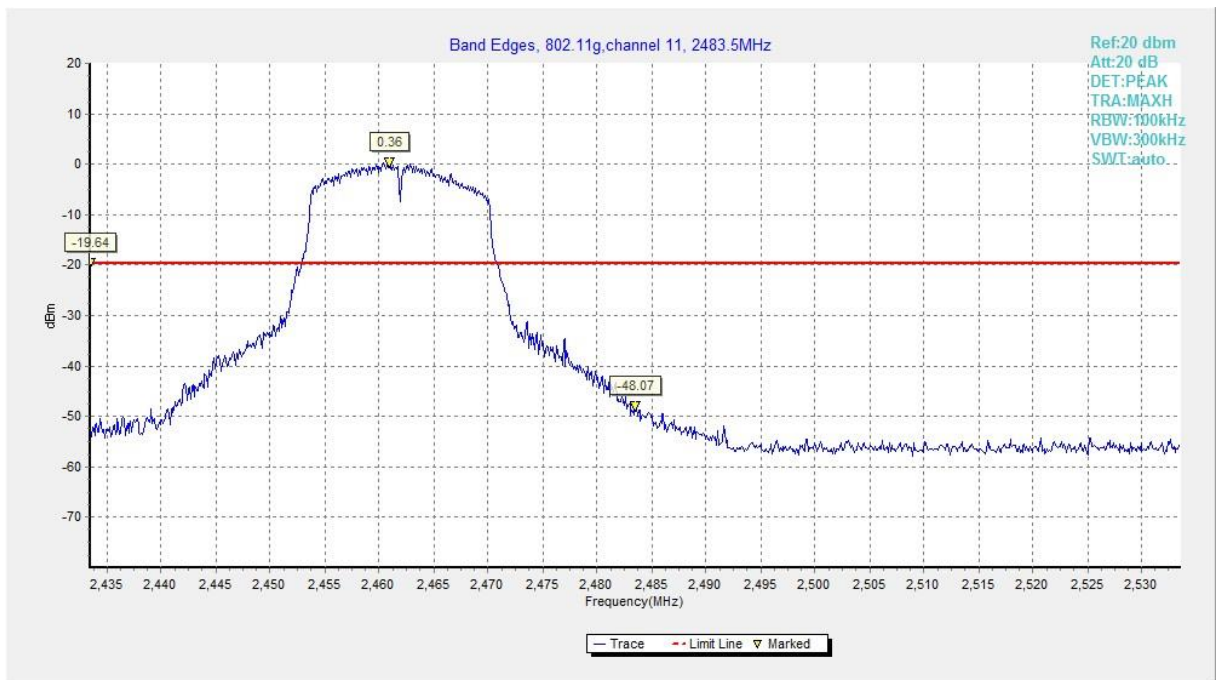
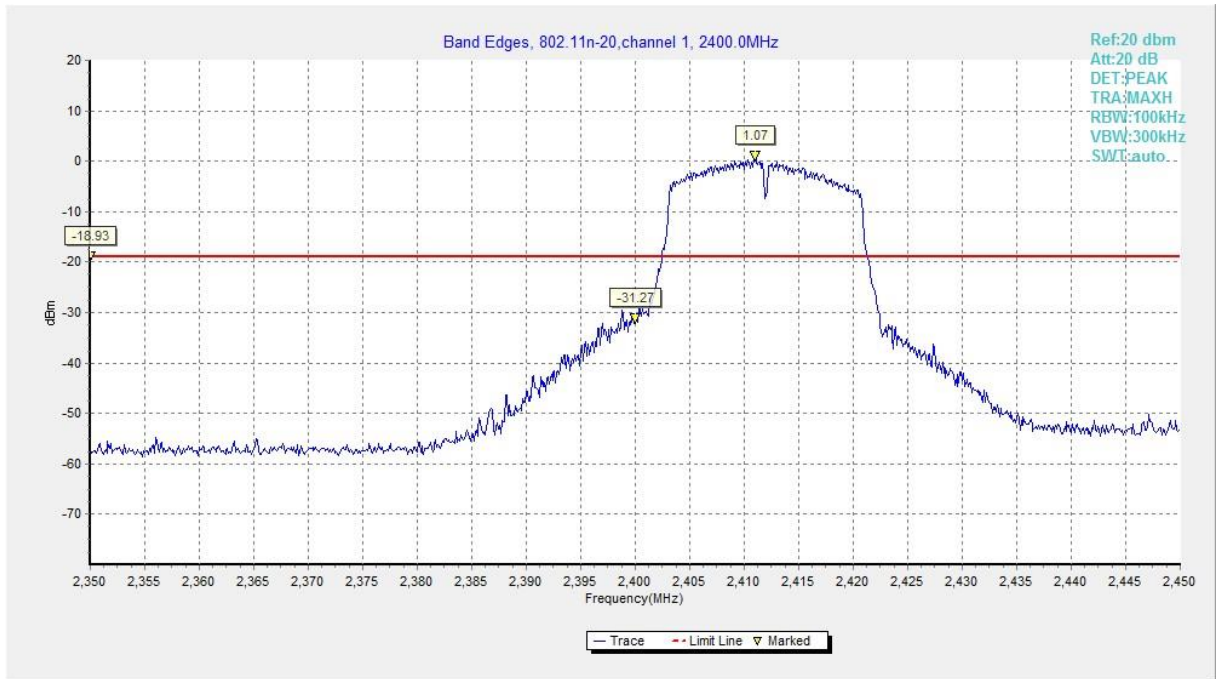
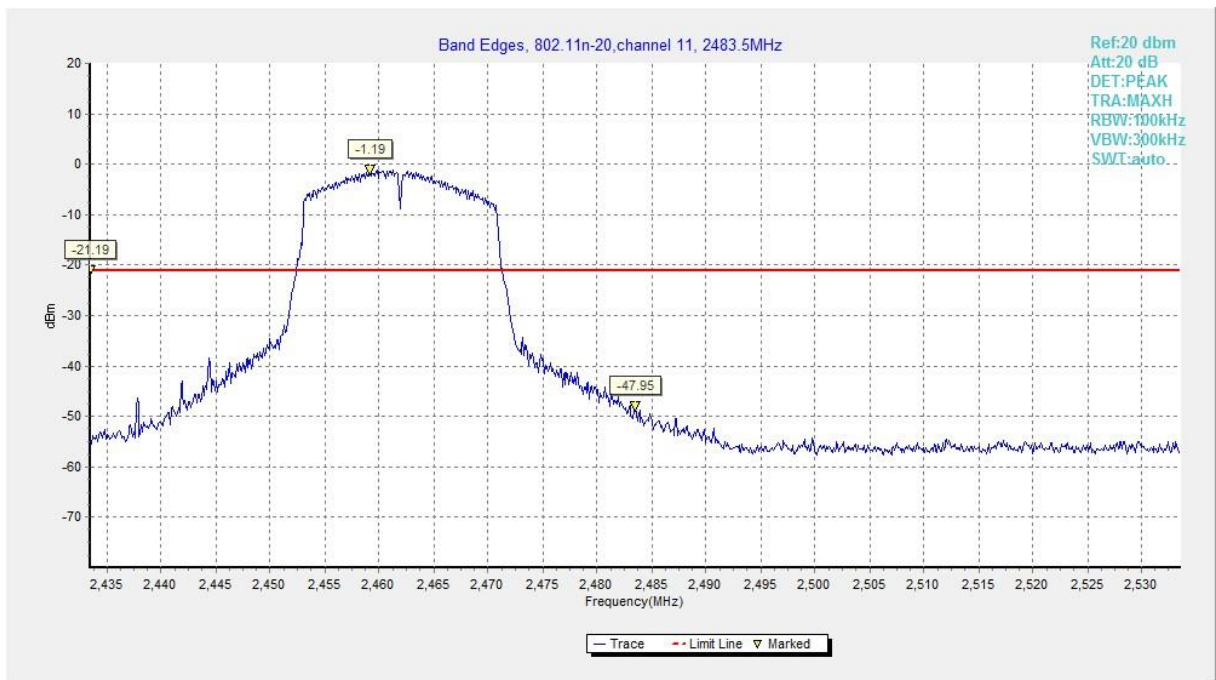


Fig.28. Band Edges (802.11g, Ch 11)

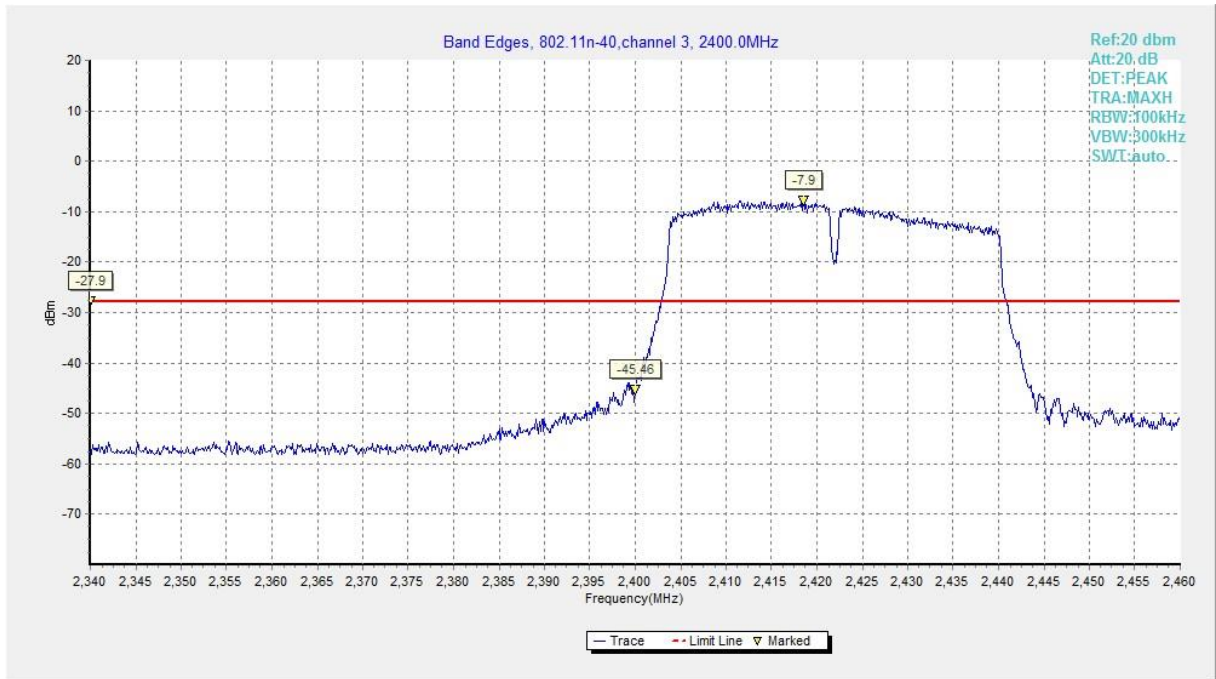


**Fig.29. Band Edges (802.11n-HT20, Ch 1)**

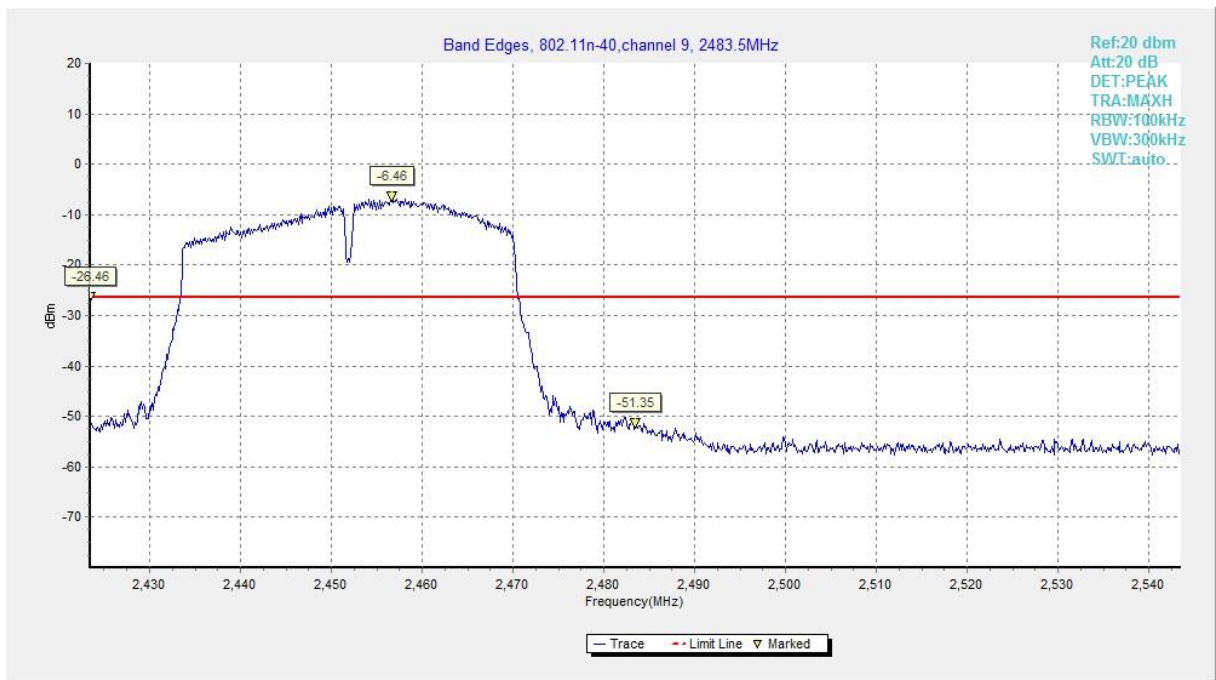


**Fig.30. Band Edges (802.11n-HT20, Ch 11)**





**Fig.31. Band Edges (802.11n-HT40, Ch 3)**



**Fig.32. Band Edges (802.11n-HT40, Ch 9)**



## A.6. Transmitter Spurious Emission

### A.6.1 Transmitter Spurious Emission – Conducted

#### Method of Measurement: See ANSI C63.10-2013-clause 11.11

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to  $\geq 1.5$  times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

#### Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

EUT ID: EUT2

Measurement Results:

**802.11b mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.33.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.34.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.35.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.36.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.37.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.38.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.39.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.40.	<b>P</b>
	6	2.437 GHz	Fig.41.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.42.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.43.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.44.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.45.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.46.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.47.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.48.	<b>P</b>
	11	2.462 GHz	Fig.49.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.50.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.51.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.52.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.53.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.54.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.55.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.56.	<b>P</b>

**802.11g mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.412 GHz	Fig.57.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.58.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.59.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.60.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.61.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.62.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.63.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.64.	<b>P</b>
	6	2.437 GHz	Fig.65.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.66.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.67.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.68.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.69.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.70.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.71.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.72.	<b>P</b>
	11	2.462 GHz	Fig.73.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.74.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.75.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.76.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.77.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.78.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.79.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.80.	<b>P</b>

**802.11n-HT20 mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.412 GHz	Fig.81.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.82.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.83.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.84.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.85.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.86.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.87.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.88.	<b>P</b>
	6	2.437 GHz	Fig.89.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.90.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.91.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.92.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.93.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.94.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.95.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.96.	<b>P</b>
	11	2.462 GHz	Fig.97.	<b>P</b>
		30 MHz ~ 1 GHz	Fig.98.	<b>P</b>
		1 GHz ~ 2.5 GHz	Fig.99.	<b>P</b>
		2.5 GHz ~ 7.5 GHz	Fig.100.	<b>P</b>
		7.5 GHz ~ 10 GHz	Fig.101.	<b>P</b>
		10 GHz ~ 15 GHz	Fig.102.	<b>P</b>
		15 GHz ~ 20 GHz	Fig.103.	<b>P</b>
		20 GHz ~ 26 GHz	Fig.104.	<b>P</b>

**802.11n-HT40 mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.422 GHz	Fig.105.	P
		30 MHz ~ 1 GHz	Fig.106.	P
		1 GHz ~ 2.5 GHz	Fig.107.	P
		2.5 GHz ~ 7.5 GHz	Fig.108.	P
		7.5 GHz ~ 10 GHz	Fig.109.	P
		10 GHz ~ 15 GHz	Fig.110.	P
		15 GHz ~ 20 GHz	Fig.111.	P
		20 GHz ~ 26 GHz	Fig.112.	P
	6	2.437 GHz	Fig.113.	P
		30 MHz ~ 1 GHz	Fig.114.	P
		1 GHz ~ 2.5 GHz	Fig.115.	P
		2.5 GHz ~ 7.5 GHz	Fig.116.	P
		7.5 GHz ~ 10 GHz	Fig.117.	P
		10 GHz ~ 15 GHz	Fig.118.	P
		15 GHz ~ 20 GHz	Fig.119.	P
		20 GHz ~ 26 GHz	Fig.120.	P
	9	2.452 GHz	Fig.121.	P
		30 MHz ~ 1 GHz	Fig.122.	P
		1 GHz ~ 2.5 GHz	Fig.123.	P
		2.5 GHz ~ 7.5 GHz	Fig.124.	P
		7.5 GHz ~ 10 GHz	Fig.125.	P
		10 GHz ~ 15 GHz	Fig.126.	P
		15 GHz ~ 20 GHz	Fig.127.	P
		20 GHz ~ 26 GHz	Fig.128.	P

**Conclusion: Pass**

**Test graphs as below:**

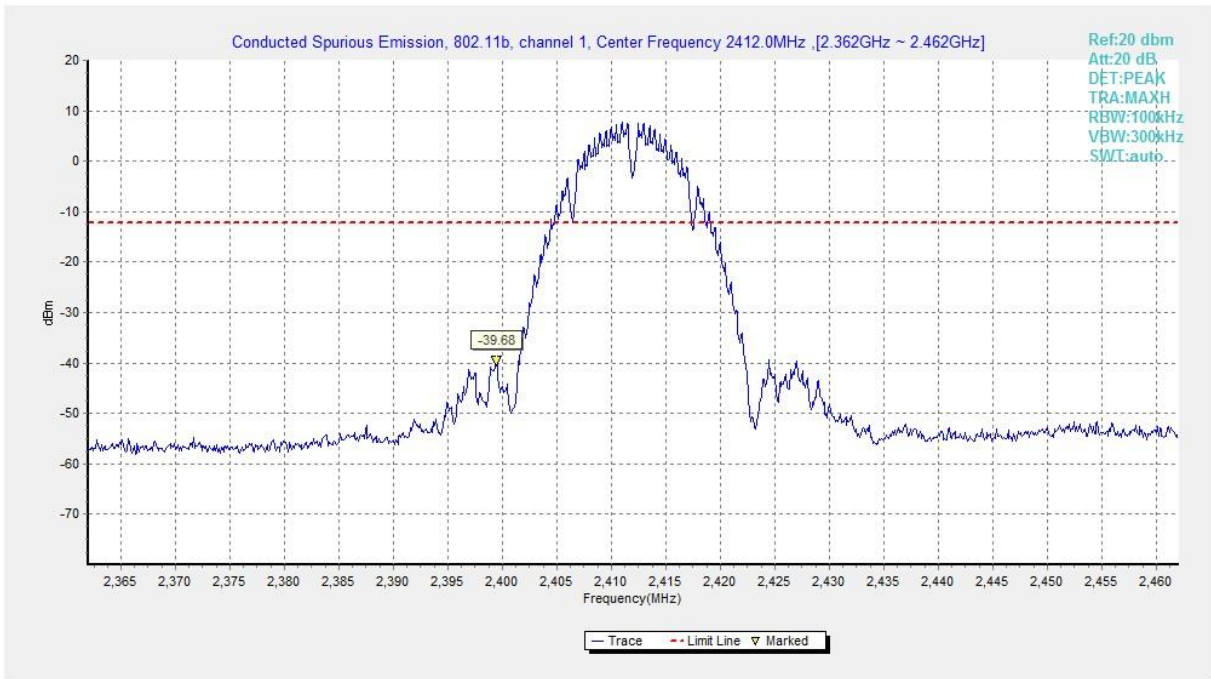


Fig.33. Transmitter Spurious Emission - Conducted (802.11b, Ch1, Center Frequency)

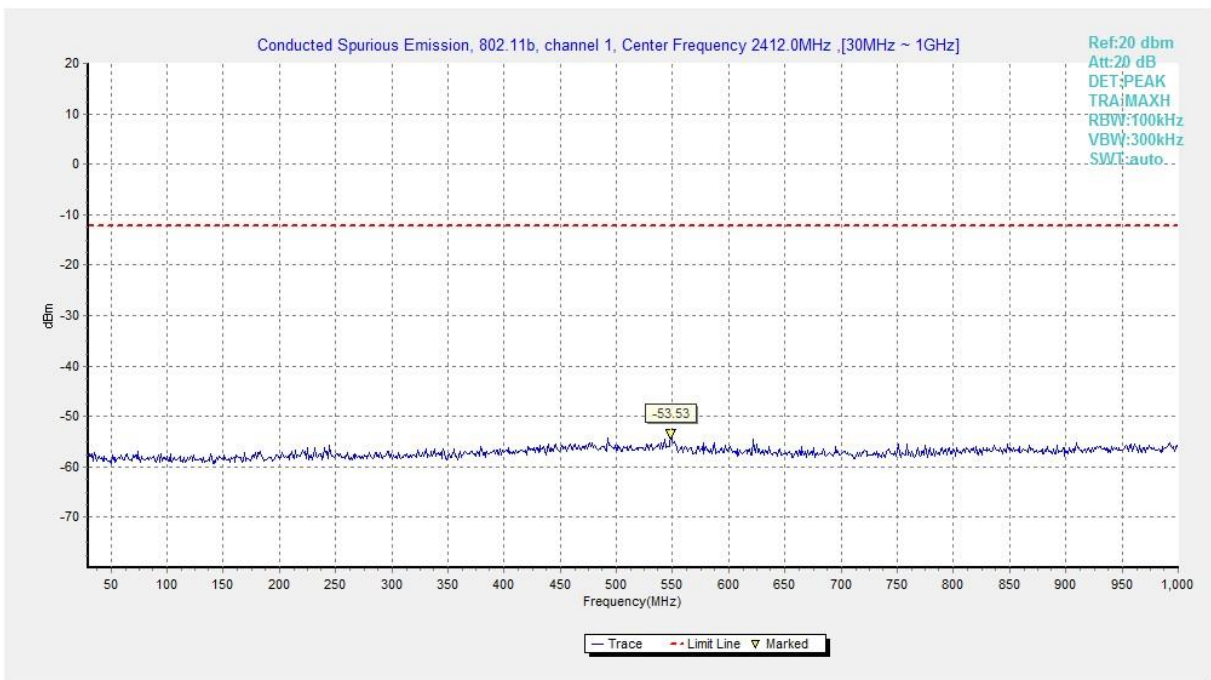


Fig.34. Transmitter Spurious Emission - Conducted (802.11b, Ch1, 30 MHz-1 GHz)