FCC PART 15C
TEST REPORT
No.I19Z61344-IOT02

for

Client name:OnePlus Technology (Shenzhen) Co., Ltd.

Product name:Smart Phone

Model name:HD1925

With

FCC ID: 2ABZ2-EE143

Hardware Version: 46

Software Version: Oxygen OS 10.0.HD61CB

Issued Date: 2019-11-03

Note:

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The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I19Z61344-IOT02	Rev.0	1st edition	2019-10-14
I19Z61344-IOT02	Rev.1	Update About EUT in page 7; Update Reference Documents for testing in page 8; Update Voltage; Add the results of 11b(Ant0+Ant1)and 11g(Ant0+Ant1).	2019-11-03

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Location 1:CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China100191

Location 2:CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China100191

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project date

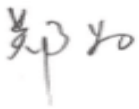
Testing Start Date: 2019-09-15

Testing End Date: 2019-10-31

1.5. Signature

Xie Fangfang

(Prepared this test report)



Zheng Wei

(Reviewed this test report)

Hu Xiaoyu

(Approved this test report)

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2. Client Information

2.1. Applicant Information

Company Name:	OnePlus Technology （shenzhen） Co., Ltd
Address:	18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	13823398081
Fax:	/

2.2. Manufacturer Information

Company Name:	OnePlus Technology （shenzhen） Co., Ltd
Address:	18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	13823398081
Fax:	/

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

3.1. About EUT

Description	Smart Phone		
Model name	HD1925		
FCC ID	2ABZ2-EE143		
With WLAN Function	Yes		
Frequency Range	ISM 2400MHz~2483.5MHz		
Type of Modulation	DSSS/CCK/OFDM		
Number of Channels	11		
Antenna type	PIFA,		
Antenna Gain	-1.50dBi(ant0),-3.00dBi(ant1)		
MAX Conducted Power	29.60dBm		
Power Supply	3.87V		
Antenna Function Description	802.11b/g/n MIMO	Ant0	Ant1

Note:The 2.4G WLAN can transmint in MIMO antenna mode only and it has no SISO antenna mode.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
EUT3	990013820049927	46	Oxygen OS 10.0.HD61CB
EUT2	990013820050545	46	Oxygen OS 10.0.HD61CB

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

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	Inbuilt
AE2	Charger	CH007/008
AE3	USB Cable	/
AE4	Charger	CH019/021

AE1

Model	BLP745
Manufacturer	Sunwoda Electronic Co.,Ltd.
Capacitance	4010mAh
Nominal voltage	3.87V

AE2

Model	WC0506A5HK
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO.,LTD.
Length of cable	/

AE3

Model	/
Manufacturer	/
Length of cable	/

AE4

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Model	WC0506A52GB
Manufacturer	/
Length of cable	/

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

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.11	EUT3+ AE1+ AE2+ AE3	BT &WIFI
Set.12	EUT3+ AE1+ AE3+ AE4	ADD Charger

3.5. General Description

The Equipment under Test (EUT) is a model of Smart 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.

3.6. 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.	2018
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 662911	Federal Communications Commission Office of Engineering and Technology Laboratory Division Emissions Testing of Transmitters with Multiple Outputs in the Same Band	2013
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON	2019

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DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES

5. Test Results

5.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (b)	/	P
Peak Power Spectral Density	15.247 (e)	/	P
Occupied 6dB Bandwidth	15.247 (a)	/	P
Band Edges Compliance	15.247 (d)	/	P
Transmitter Spurious Emission - Conducted	15.247 (d)	/	P
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

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

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

5.2. Statements

The test cases as listed in section 5.1 of this report for the EUT specified in section 3 was performed by CTTL and according to the standards or reference documents listed in section 4.2

The EUT met all requirements of the standards or reference documents, and only the WLAN function was tested in this report.

5.3. Test Conditions

T nom	Normal Temperature
T min	Low Temperature
T max	High Temperature
V nom	Normal Voltage

For this report, if the test cases listed above are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	T nom	26℃
Voltage	V nom	3.87V(By battery)
Humidity	H nom	20-75%

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6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2020-05-15
2	LISN	ENV216	101200	Rohde & Schwarz	1 year	2020-03-14
3	Test Receiver	ESCI	100344	Rohde & Schwarz	1 year	2020-02-14
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100235	Rohde & Schwarz	1 year	2020-03-01
2	BiLog Antenna	VULB9163	9163-1222	Schwarzbeck	1 year	2020-03-14
3	Dual-Ridge Waveguide Horn Antenna	3115	6914	ETS-Lindgren	1year	2020-01-03
4	EMI Antenna	3116	2661	ETS-Lindgren	1 Year	2020-10-14
5	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	1 year	2020-05-16

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7. Measurement Uncertainty

7.1. Maximum Output Power

Measurement Uncertainty: 0.387dB,k=1.96

7.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

7.3. DTS 6-dB Signal Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

7.4. Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

7.5. Transmitter Spurious Emission

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
30MHz ≤ f ≤ 2GHz	1.22
2GHz ≤ f ≤3.6GHz	1.22
3.6GHz ≤ f ≤8GHz	1.22
8GHz ≤ f ≤12.75GHz	1.51
12.75GHz ≤ f ≤26GHz	1.51
26GHz ≤ f ≤40GHz	1.59

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
30MHz ≤ f ≤ 1GHz	5.40
1GHz ≤ f ≤18GHz	4.32
18GHz ≤ f ≤40GHz	5.26

7.6. AC Power-line Conducted Emission

Measurement Uncertainty : 3.08dB,k=2

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ANNEX A: Detailed Test Results

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

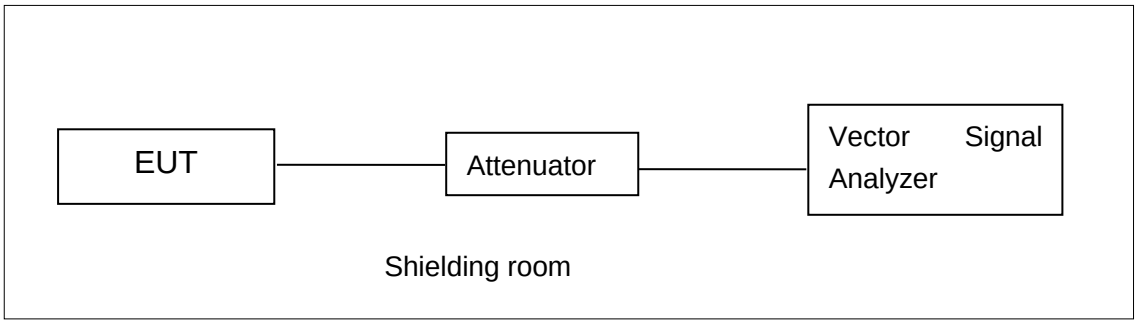

Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

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;

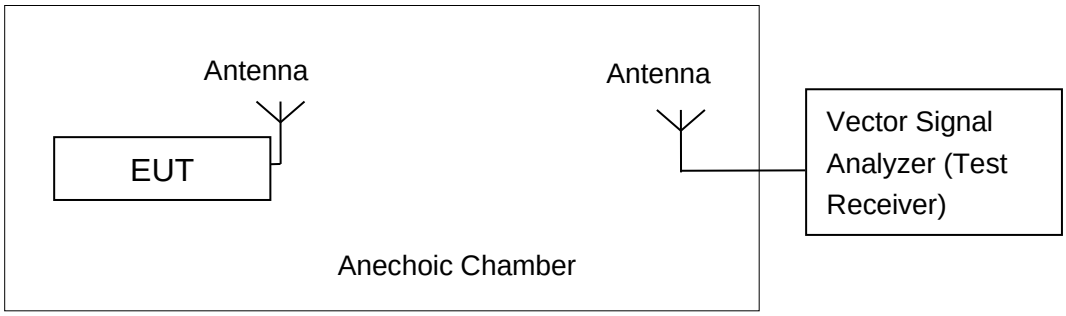

Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements

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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 ≥ [1.5 × 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:

Ant0+Ant1:

Mode	Data Rate (Mbps)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	1	25.94	/	/
	2	26.21	/	/
	5.5	27.59	/	/
	11	28.82	28.49	29.10
802.11g	6	29.29	/	/
	9	29.48	29.29	29.60
	12	27.72	/	/
	18	28.17	/	/
	24	27.55	/	/
	36	28.12	/	/
	48	26.69	/	/
	54	26.75	/	/
802.11n (20MHz)	MCS8	29.01	28.18	28.33
	MCS9	27.66	/	/
	MCS10	28.43	/	/
	MCS11	28.56	/	/
	MCS12	27.27	/	/
	MCS13	27.38	/	/
	MCS14	26.39	/	/
	MCS15	26.24	/	/

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The data rate 11Mbps、9Mbps and MCS8 are selected as worse condition, and the following cases are performed with this condition.

2.4GHz Band									
Mode	Date Rate	Chnanel	Freq.(MHz)	Peak Conducted Power(dBm)			Conducted Power Limit(dBm)		Pass/Fail
				Ant0	Ant1	SUM	Ant0	Ant1	
11b	11Mbps	1	2412	26.13	25.46	28.82	30.00		Pass
11b	11Mbps	6	2437	25.45	25.51	28.49	30.00		Pass
11b	11Mbps	11	2462	26.24	25.94	29.10	30.00		Pass
11g	9Mbps	1	2412	26.82	26.08	29.48	30.00		Pass
11g	9Mbps	6	2437	26.39	26.17	29.29	30.00		Pass
11g	9Mbps	11	2462	26.79	26.37	29.60	30.00		Pass
11n-20	MCS8	1	2412	26.45	25.50	29.01	30.00		Pass
11n-20	MCS8	6	2437	24.96	25.37	28.18	30.00		Pass
11n-20	MCS8	11	2462	24.84	25.76	28.33	30.00		Pass

Conclusion: Pass

A.2.2. Average Output Power-conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.9.2.2.2

The procedure for this method is as follows:

a) Set span = 1.5OBW.

b) Set RBW = 1MHz.

c) Set VBW = 3MHz

d) Number of points in sweep = 625

e) Sweep time = auto.

f) Detector = RMS.

g) If transmit duty cycle < 98%, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFFintervals) or at duty cycle ⩾98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.”

h) Trace average 100 traces in power averaging (rms) mode.

i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

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Duty Cycle

11b	1Mbps	2Mbps	5.5Mbps	11Mbps				
	99.36%	99.42%	98.81%	97.58%				
11g	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
	98.33%	97.54%	97.58%	96.30%	95.41%	93.99%	91.00%	88.46%
11n-20	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
	97.91%	96.46%	94.91%	93.05%	90.75%	88.35%	87.37%	86.42%

Ant0+Ant1:

2.4GHz Band						
Mode	Chnanel	Freq.(MHz)	Average Conducted Power(dBm)			Pass/Fail
			Ant0	Ant1	SUM	
11b	1	2412	19.71	19.15	22.45	Pass
11b	6	2437	19.07	19.10	22.10	Pass
11b	11	2462	19.85	19.52	22.70	Pass
11g	1	2412	18.70	18.07	21.40	Pass
11g	6	2437	18.11	18.25	21.19	Pass
11g	11	2462	18.60	18.71	21.67	Pass
11n-20	1	2412	17.68	17.72	20.71	Pass
11n-20	6	2437	17.67	17.73	20.71	Pass
11n-20	11	2462	17.76	17.80	20.79	Pass

Conclusion: Pass

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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 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:

Ant0+Ant1:

2.4GHz Band									
Mode	Date Rate	Chnanel	Freq.(MHz)	Peak Power Spectral Density(dBm/3 kHz)			Peak Power Spectral Density Limit(dBm/3 kHz)		Pass/Fail
				Ant0	Ant1	SUM	Ant0	Ant1	
11b	11Mbps	1	2412	-2.97	-3.40	-0.17	8.00		Pass
11b	11Mbps	6	2437	-3.60	-2.45	0.02	8.00		Pass
11b	11Mbps	11	2462	-2.73	-3.15	0.08	8.00		Pass
11g	9Mbps	1	2412	-8.30	-9.65	-5.91	8.00		Pass
11g	9Mbps	6	2437	-9.02	-8.18	-5.57	8.00		Pass
11g	9Mbps	11	2462	-8.15	-8.57	-5.34	8.00		Pass
11n-20	MCS8	1	2412	-6.75	-7.64	-4.16	8.00		Pass
11n-20	MCS8	6	2437	-7.13	-7.50	-4.30	8.00		Pass
11n-20	MCS8	11	2462	-6.26	-7.99	-4.03	8.00		Pass

Conclusion: Pass

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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:

The Ant0 is selected as worse condition of Ant0+Ant1.

802.11b/g mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11b	1	Fig.A.4.1	9000.00	**P**
	6	Fig.A.4.2	8800.00	**P**
	11	Fig.A.4.3	8050.00	**P**
802.11g	1	Fig.A.4.4	15150.00	**P**
	6	Fig.A.4.5	15450.00	**P**
	11	Fig.A.4.6	15050.00	**P**

802.11n-HT20 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11n (HT20)	1	Fig.A.4.7	15100.00	**P**
	6	Fig.A.4.8	15950.00	**P**
	11	Fig.A.4.9	15100.00	**P**

Conclusion: Pass

Test graphs as below:

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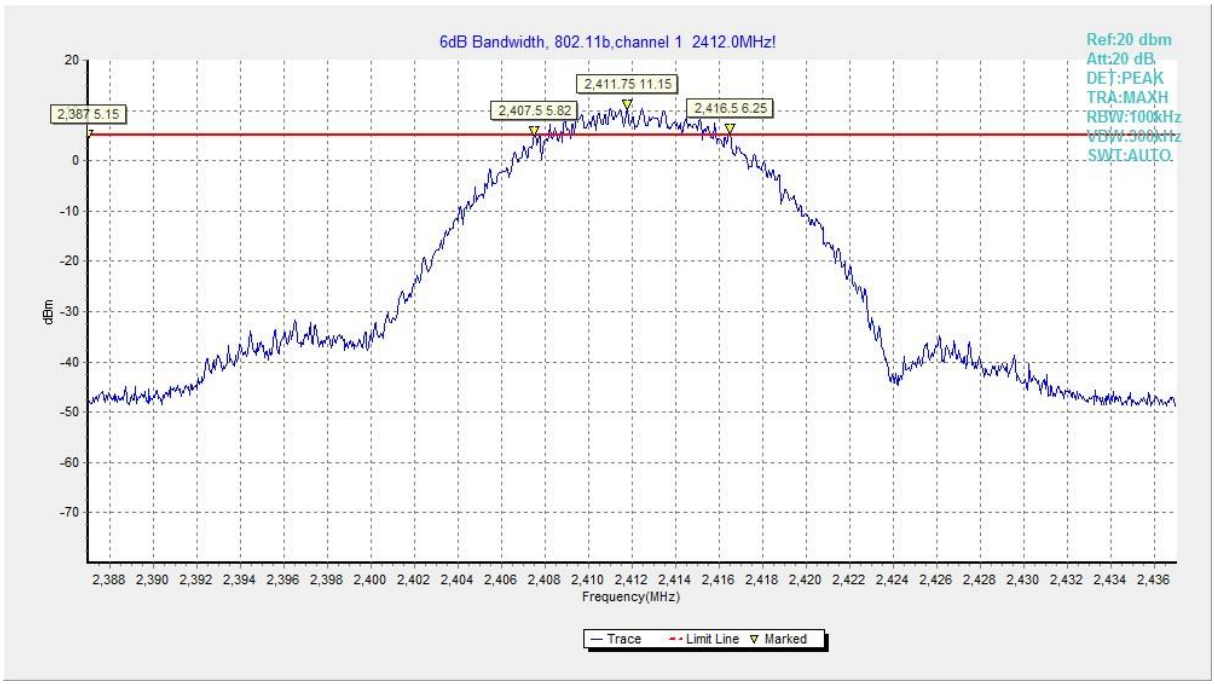

Fig.A.4.1 Occupied 6dB Bandwidth(802.11b,Ch 1)

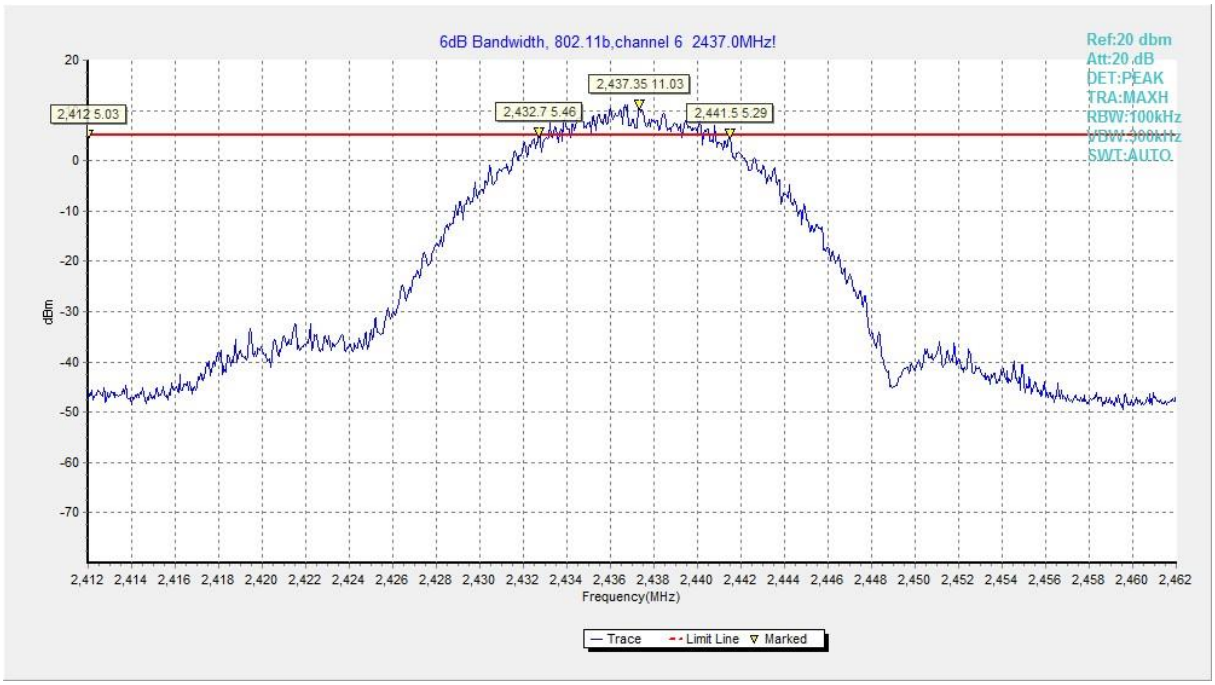

Fig.A.4.2 Occupied 6dB Bandwidth (802.11b, Ch 6)

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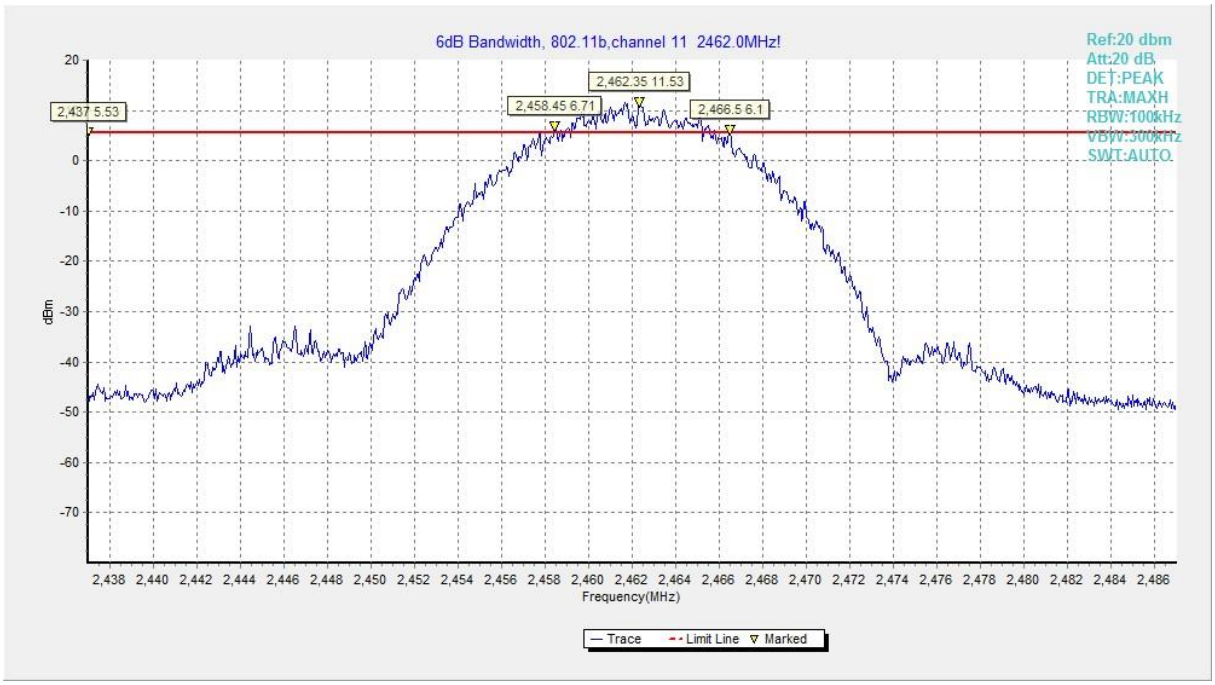

Fig.A.4.3 Occupied 6dB Bandwidth (802.11b, Ch 11)

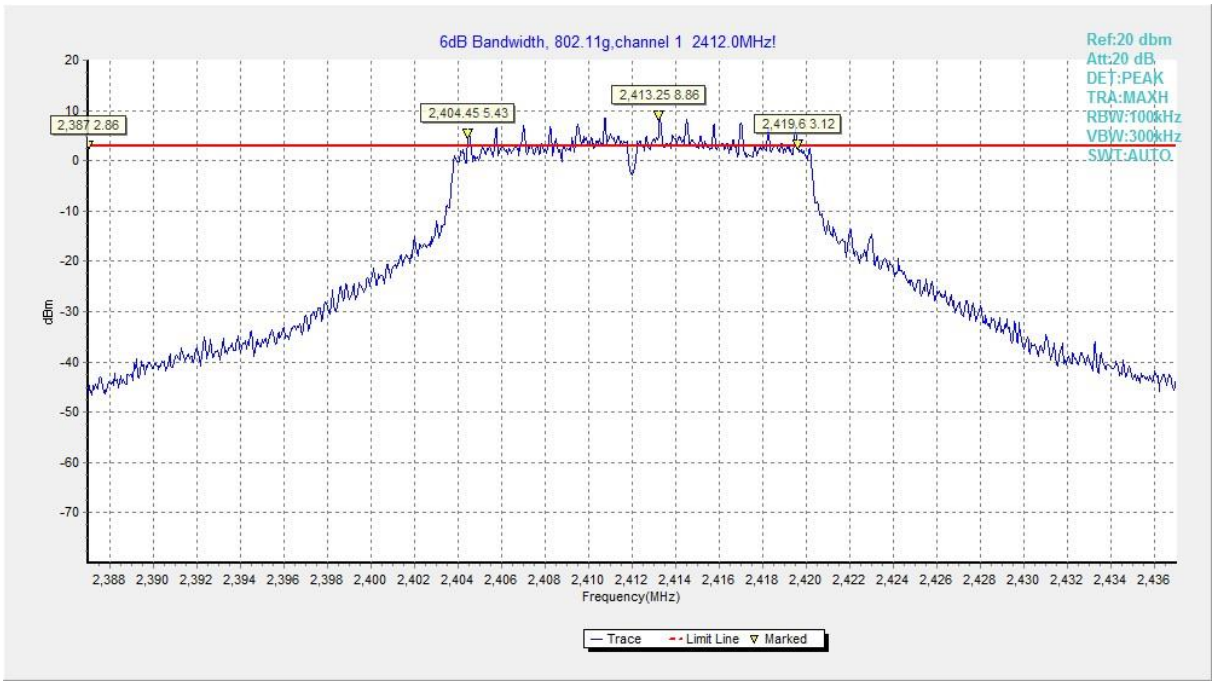

Fig.A.4.4 Occupied 6dB Bandwidth (802.11g, Ch 1)

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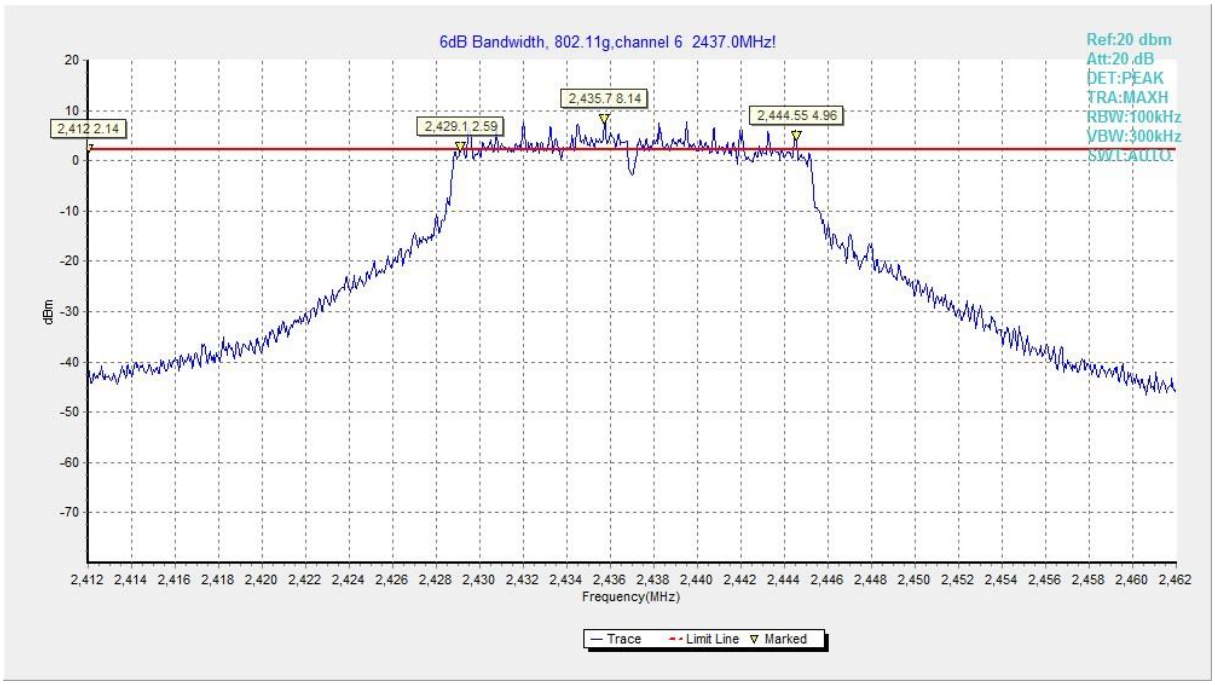

Fig.A.4.5 Occupied 6dB Bandwidth (802.11g, Ch 6)

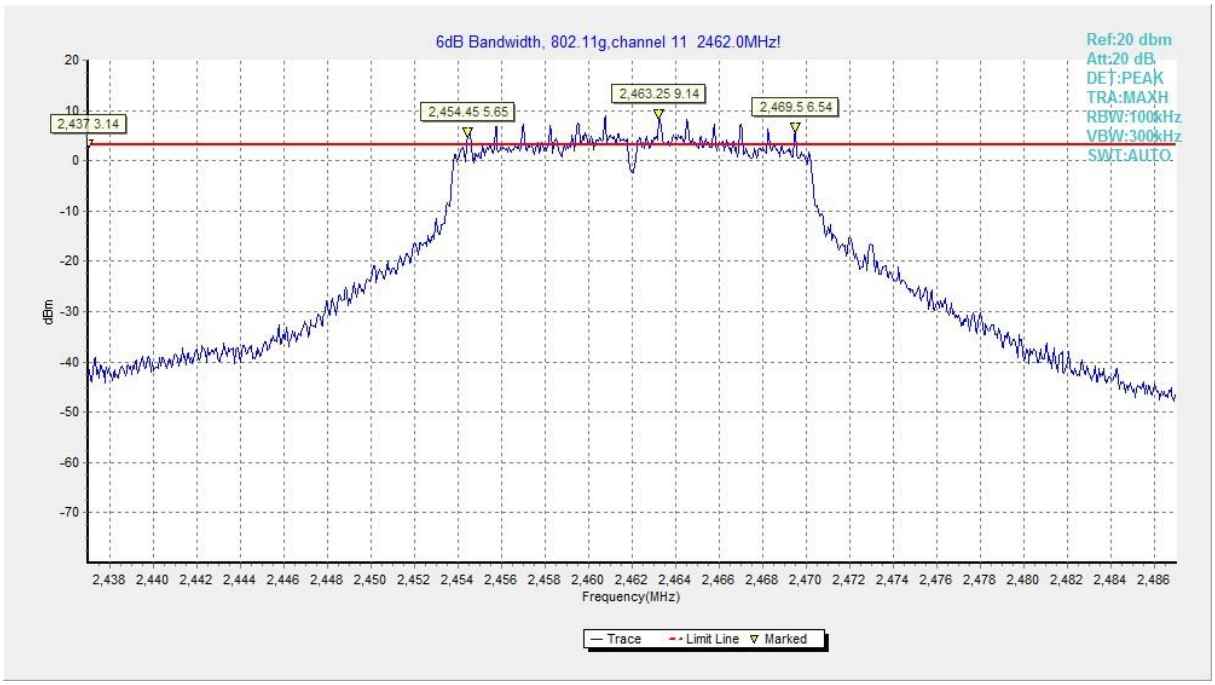

Fig.A.4.6 Occupied 6dB Bandwidth (802.11g, Ch 11)

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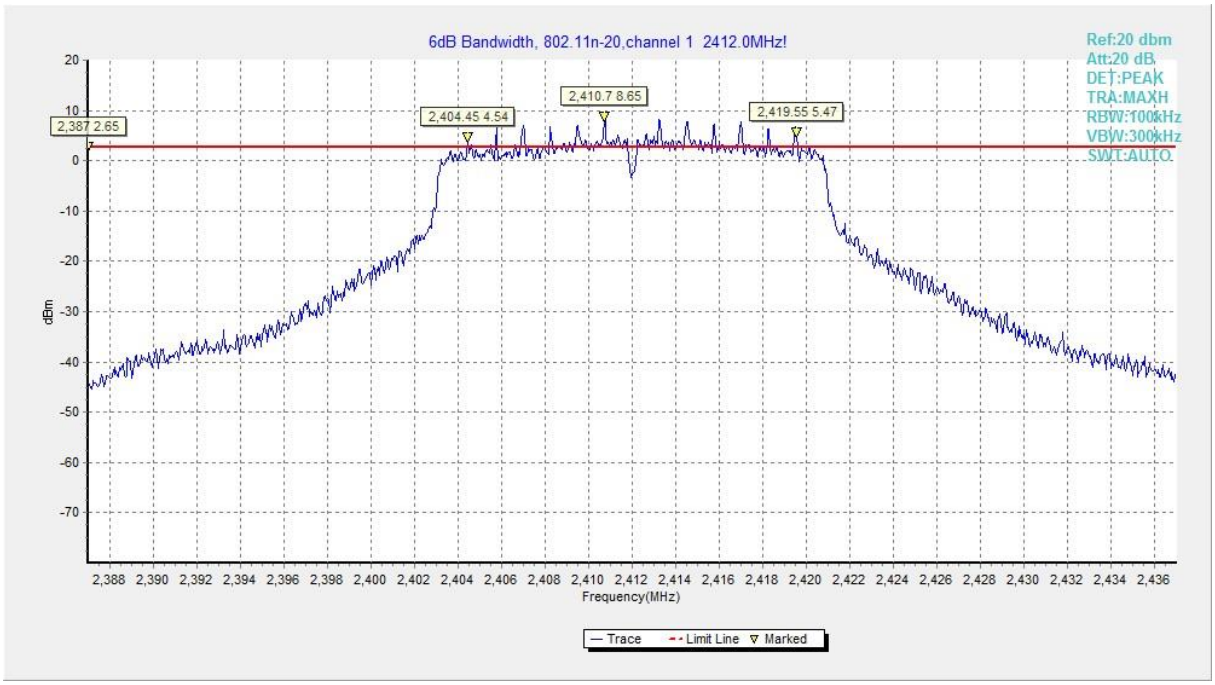

Fig.A.4.7 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)

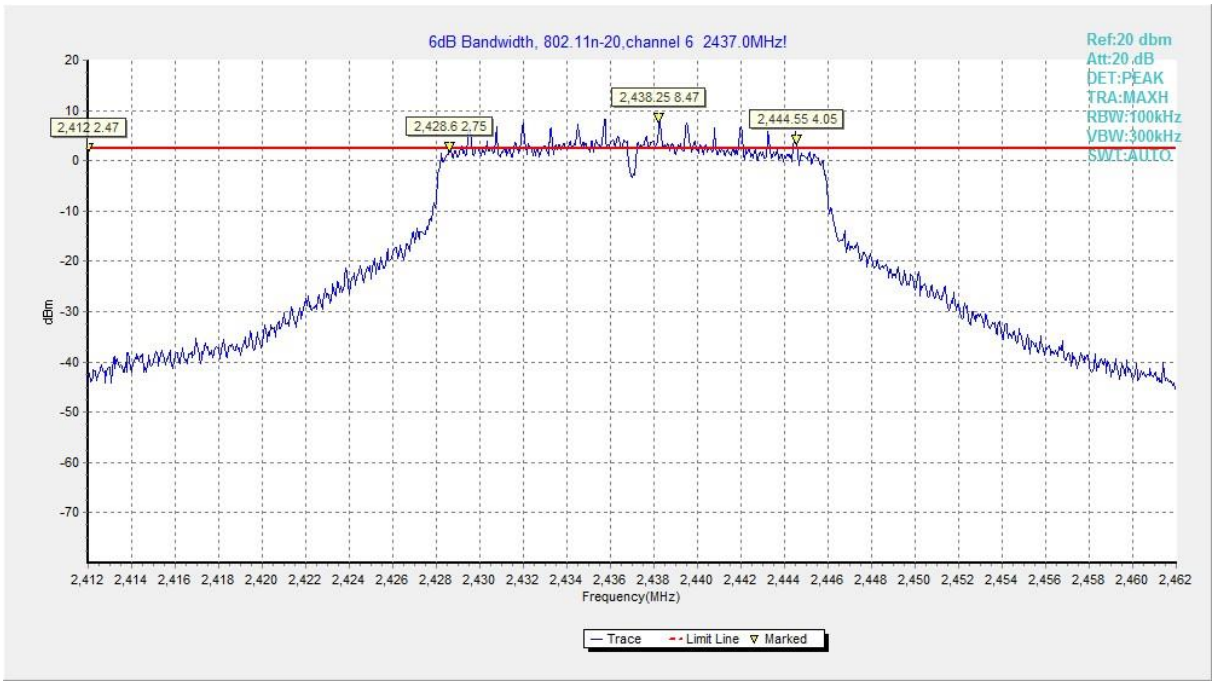

Fig.A.4.8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)

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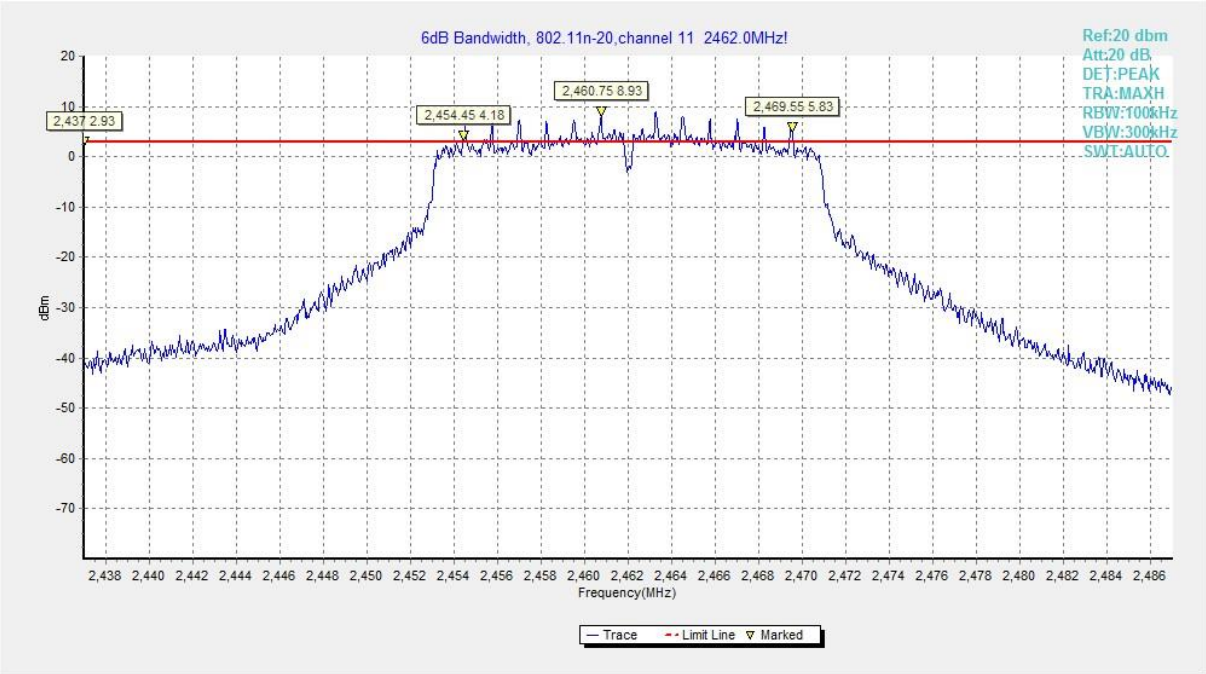

Fig.A.4.9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

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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:

The Ant0 is selected as worse condition of Ant0+Ant1.

802.11b/g mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.A.5.1	**P**
	11	Fig.A.5.2	**P**
802.11g	1	Fig.A.5.3	**P**
	11	Fig.A.5.4	**P**

802.11n-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11n (HT20)	1	Fig.A.5.5	**P**
	11	Fig.A.5.6	**P**

Conclusion: Pass

Test graphs as below:

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Fig.A.5.1 Band Edges (802.11b, Ch 1)

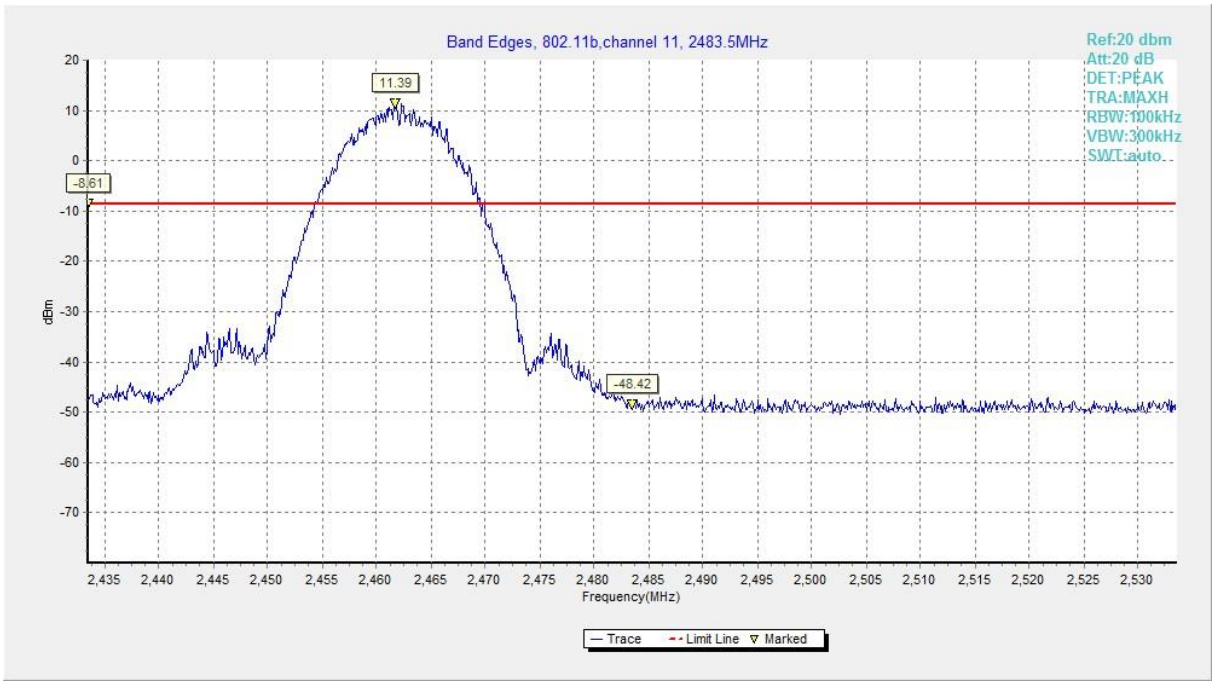

Fig.A.5.2 Band Edges (802.11b, Ch 11)

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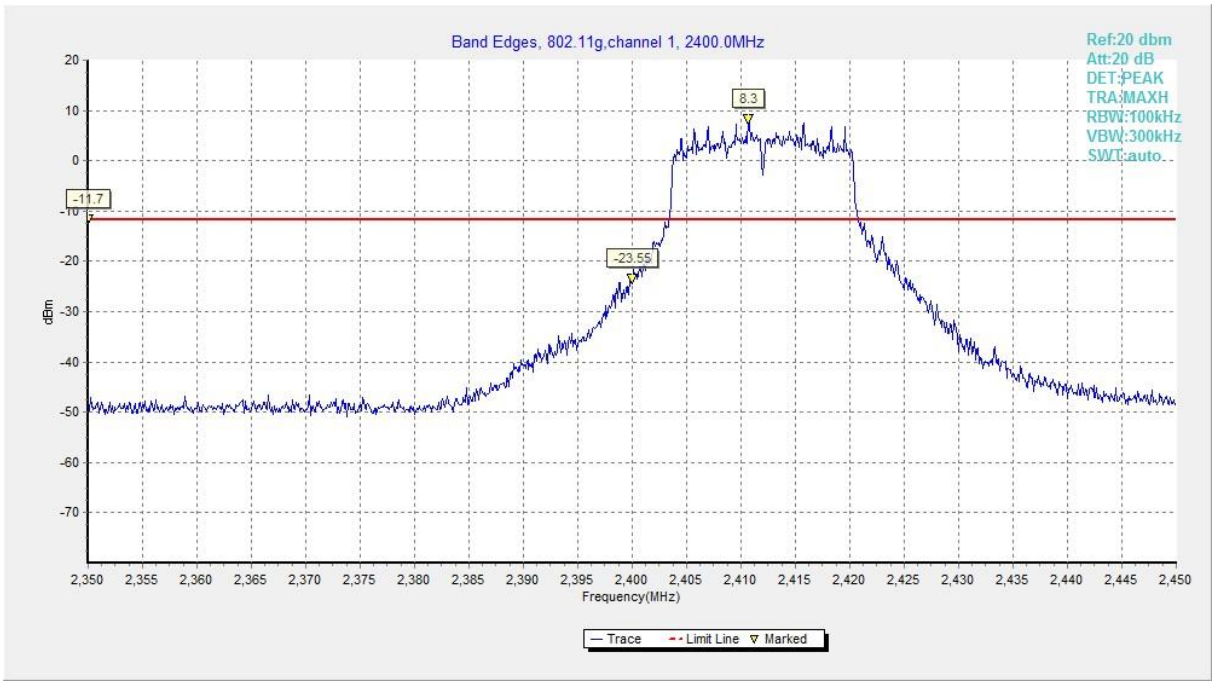

Fig.A.5.3 Band Edges (802.11g, Ch 1)

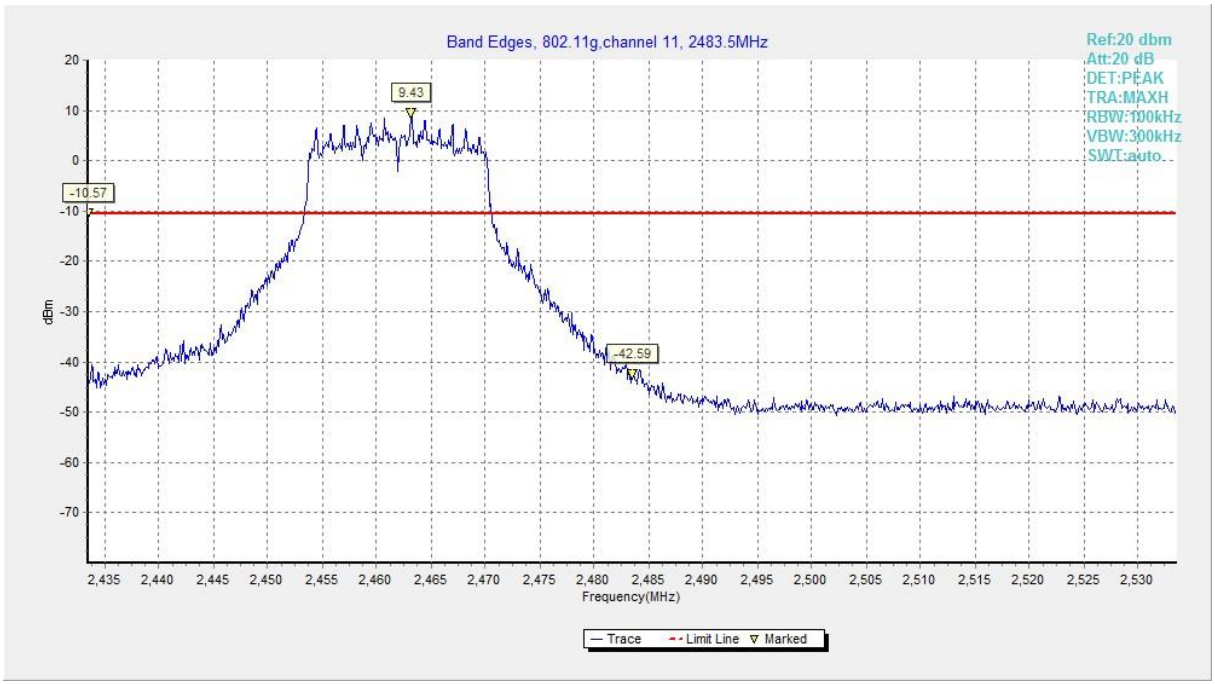

Fig.A.5.4 Band Edges (802.11g, Ch 11)

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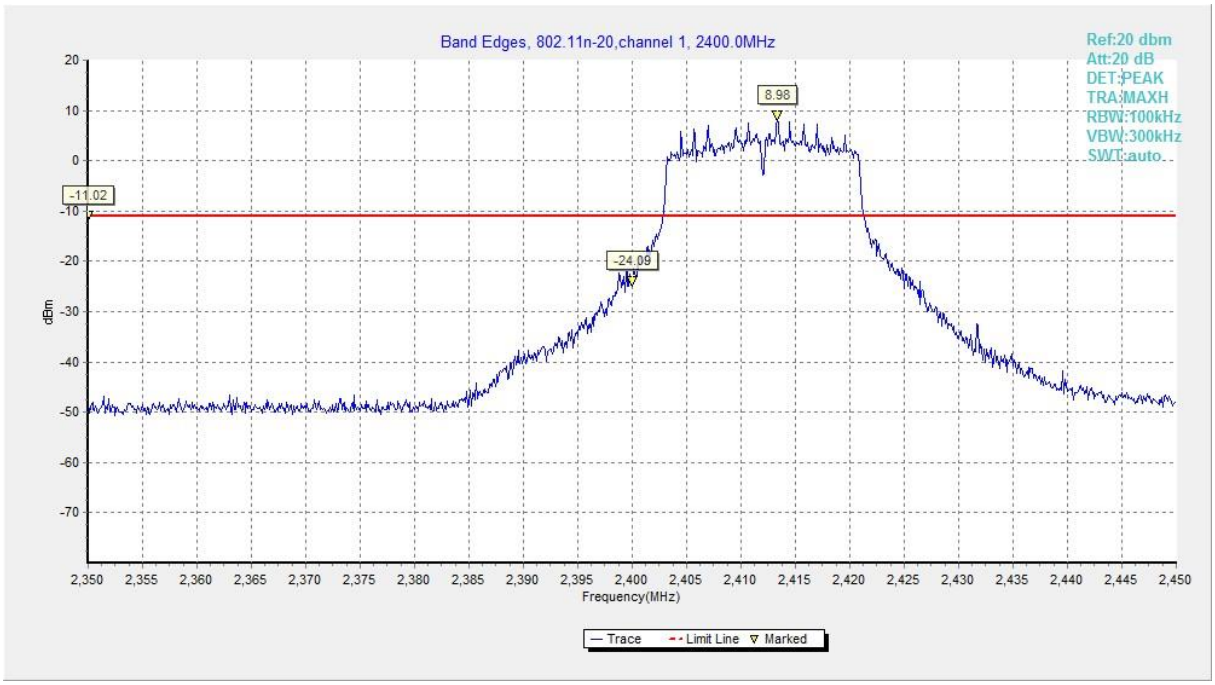

Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)

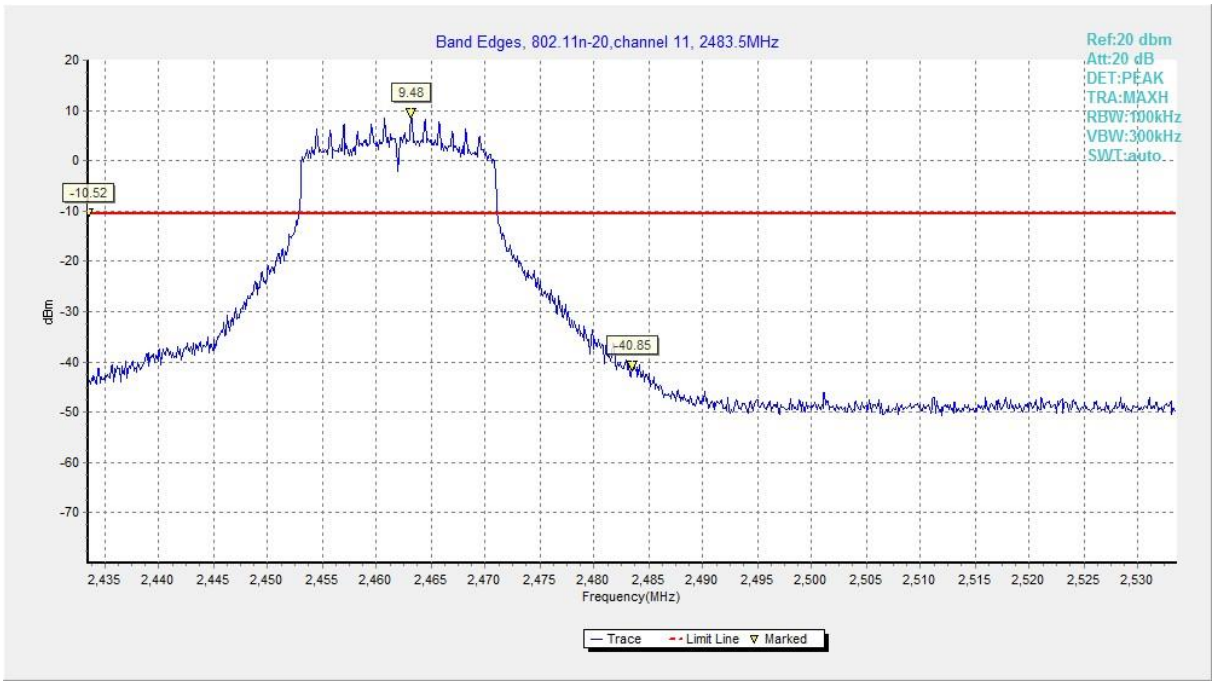

Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)

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A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11.2

Establish a reference level by using the following procedure:

a) Set instrument center frequency to DTS channel center frequency
b) Set the span to ≥ 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:

The Ant0 is selected as worse condition of Ant0+Ant1.

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802.11b mode

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.A.6.1.1	**P**
		30 MHz ~ 1 GHz	Fig.A.6.1.2	**P**
		1 GHz ~ 2.5 GHz	Fig.A.6.1.3	**P**
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.4	**P**
		7.5 GHz ~ 10 GHz	Fig.A.6.1.5	**P**
		10 GHz ~ 15 GHz	Fig.A.6.1.6	**P**
		15 GHz ~ 20 GHz	Fig.A.6.1.7	**P**
		20 GHz ~ 26 GHz	Fig.A.6.1.8	**P**
	6	2.437 GHz	Fig.A.6.1.9	**P**
		30 MHz ~ 1 GHz	Fig.A.6.1.10	**P**
		1 GHz ~ 2.5 GHz	Fig.A.6.1.11	**P**
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.12	**P**
		7.5 GHz ~ 10 GHz	Fig.A.6.1.13	**P**
		10 GHz ~ 15 GHz	Fig.A.6.1.14	**P**
		15 GHz ~ 20 GHz	Fig.A.6.1.15	**P**
		20 GHz ~ 26 GHz	Fig.A.6.1.16	**P**
	11	2.462 GHz	Fig.A.6.1.17	**P**
		30 MHz ~ 1 GHz	Fig.A.6.1.18	**P**
		1 GHz ~ 2.5 GHz	Fig.A.6.1.19	**P**
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.20	**P**
		7.5 GHz ~ 10 GHz	Fig.A.6.1.21	**P**
		10 GHz ~ 15 GHz	Fig.A.6.1.22	**P**
		15 GHz ~ 20 GHz	Fig.A.6.1.23	**P**
		20 GHz ~ 26 GHz	Fig.A.6.1.24	**P**

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