



# FCC PART 15 TEST REPORT No. I23Z60663-IOT08

for

**TCL Communication Ltd.**

**Tablet PC**

**8496G**

**With**

**FCC ID: 2ACCJB200**

**Hardware Version: PIO**

**Software Version: v3ST5**

**Issued Date: 2023-06-01**

**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 CTTL.

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.

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I23Z60663-IOT08	Rev.0	1st edition	2023-06-01

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## **1. TEST LABORATORY**

### **1.1. Introduction & Accreditation**

**Telecommunication Technology Labs, CAICT** is an ISO/IEC 17025:2017 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 (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

### **1.2. Testing Location**

Conducted testing Location: CTTL(Huayuan North Road)

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

Radiated testing Location:

CTTL (BDA)

Address: No. 18A, Kangding Street, Beijing Economic-Technology  
Development Area, Beijing, 100176, P.R. China

CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,  
100191, P. R. China

### **1.3. Testing Environment**

Normal Temperature: 15-35°C

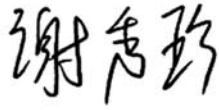
Relative Humidity: 20-75%

### **1.4. Project date**

Testing Start Date: 2023-04-18

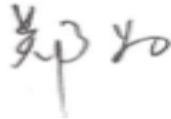
Testing End Date: 2023-06-01

### 1.5. Signature



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Xie Xiuzhen  
( Prepared this test report )



---

Zheng Wei  
(Reviewed this test report)



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Pang Shuai  
(Approved this test report)



## **2. CLIENT INFORMATION**

### **2.1 Applicant Information**

Company Name: TCL Communication Ltd.  
Address: 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: +86 755 3661 1621  
Fax: +86 755 3661 2000-81722

### **2.2 Manufacturer Information**

Company Name: TCL Communication Ltd.  
Address: 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: +86 755 3661 1621  
Fax: +86 755 3661 2000-81722

### 3. EQUIPMENT UNDER TEST (EUT) AND

#### ANCILLARY EQUIPMENT (AE)

##### 3.1. About EUT

Description	Tablet PC
Model name	8496G
FCC ID	2ACCJB200
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Voltage	3.85V

##### 3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
UT09a	B4695F5381182C6	PIO	v3ST5
UT18a	B4695F53811822F	PIO	v3ST5

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

UT09a is used for Conduction test, UT18a is used for Radiation test.

##### 3.3. Internal Identification of AE used during the test

AE ID*	Name	Model	Manufacturer
AE1	Battery	TLp058C8	Huizhou Ganfeng Lienergy Battery Technology Co.,Ltd.
AE2-1	Adapter(US)	CG10A0502000UU	Huizhou Juwei Electronics Co.,LTD.
AE2-2	Adapter(EU)	CG10A0502000EU	Huizhou Juwei Electronics Co.,LTD.
AE2-3	Adapter(US)	UC13US	HUIZHOU PUAN ELECTRONICS CO., LTD
AE2-4	Adapter(UK)	UC13UK	HUIZHOU PUAN ELECTRONICS CO., LTD
AE2-5	Adapter(EU)	UC13EU	HUIZHOU PUAN ELECTRONICS CO., LTD
AE3	Date Cable	JWUB1581-Y50R	Huizhou Juwei Electronics Co.,LTD.

\*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 Tablet PC 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.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2018
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12
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. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

## 6. SUMMARY OF TEST RESULTS

### 6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	<b>P</b>
Peak Power Spectral Density	15.407	/	<b>P</b>
Occupied 26dB Bandwidth	15.403	/	<b>P</b>
Band edge compliance (Radiated)	15.209	/	<b>P</b>
Transmitter spurious emissions (Radiated)	15.407	/	<b>P</b>
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	<b>P</b>
Frequency Stability	15.407	/	<b>P</b>
99% Occupied bandwidth	/	/	<b>P</b>
Transmit Power Control	15.407	/	<b>NA</b>

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

Terms used in Verdict column

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

### 6.2. Statements

CTTL has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

### 6.3. Test Conditions

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

Temperature	26°C
Voltage	3.85V
Humidity	44%

## 7. TEST EQUIPMENTS UTILIZED

### 8. Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2023-06-15
2	Test Receiver	ESCI	100766	Rohde & Schwarz	1 year	2024-02-21
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	1 year	2023-06-29
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	100376	R&S	1 year	2023-09-22
2	Test Receiver	ESW44	103015	R&S	1 year	2024-01-14
3	Test Receiver	ESW44	103144	R&S	1 year	2023-10-25
4	Loop Antenna	HFH2-Z2	829324/007	R&S	1 year	2023-12-22
5	EMI Antenna	VULB9163	01177	Schwarzbeck	1 year	2023-08-03
6	EMI Antenna	3117	00119024	ETS-Lindgren	1 year	2023-06-07
7	EMI Antenna	LB-180400 -25-C-KF	21100840000 06	A-INFO	1 year	2024-03-02

### AC Power Line Conducted Emission

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	LISN	ENV216	101459	R&S	1 year	2024-02-29
2	Test Receiver	ESCI	100766	R&S	1 year	2024-03-30

## 9. Measurement Uncertainty

### 8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

### 8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

### 8.3 Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

### 8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

### 8.5 Spurious Emissions

#### Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

#### Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	4.92
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.29
$1\text{GHz} \leq f \leq 18\text{GHz}$	5.62
$18\text{GHz} \leq f \leq 40\text{GHz}$	3.52

### 8.6 AC Power-line Conducted Emission

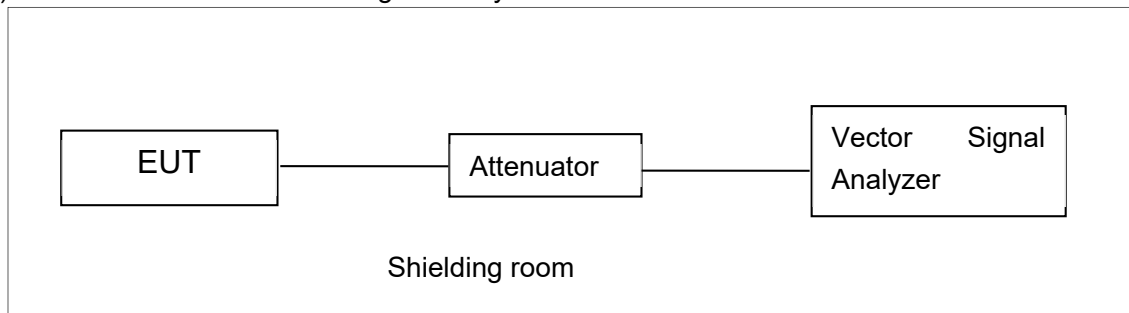
Measurement Uncertainty : 3.08,k=2

## ANNEX A: MEASUREMENT RESULTS

### A.1. Measurement Method

#### A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer

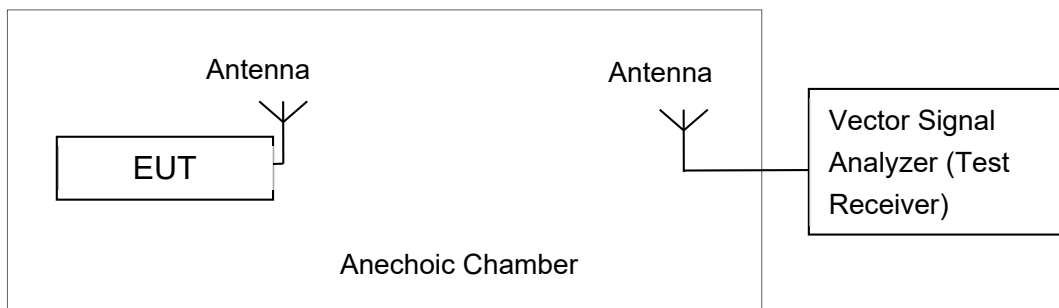


#### A.1.2. Radiated Emission Measurements

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;



The measurement is made according to KDB 789033

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

## A.2. Maximum output Power

### Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurement method SA-2 is made according to KDB 789033

### Measurement Results:

#### 802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	16.54	/	/	/	/	/	/	/
	5200MHz	16.52	/	/	/	/	/	/	/
	5240MHz	16.45	/	/	/	/	/	/	/
	5260MHz	16.58	/	/	/	/	/	/	/
	5280MHz	16.53	/	/	/	/	/	/	/
	5320MHz	16.61	/	/	/	/	/	/	/

The data rate 6Mbps is selected as worst condition, and the following cases are performed with this condition.

#### 802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	14.88	/	/	/	/	/	/	/
	5200MHz	14.80	/	/	/	/	/	/	/
	5240MHz	15.09	/	/	/	/	/	/	/
	5260MHz	14.76	/	/	/	/	/	/	/
	5280MHz	14.88	/	/	/	/	/	/	/
	5320MHz	14.51	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

#### 802.11ac-HT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (HT20)	5180MHz	14.75	/	/	/	/	/	/	/	/
	5200MHz	14.76	/	/	/	/	/	/	/	/

	5240MHz	15.01	/	/	/	/	/	/	/	/
	5260MHz	14.77	/	/	/	/	/	/	/	/
	5280MHz	14.96	/	/	/	/	/	/	/	/
	5320MHz	14.50	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

**802.11n-HT40 mode**

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
802.11n (HT40)	5190MHz	14.80	/	/	/	/	/	/	/	/
	5230MHz	14.78	/	/	/	/	/	/	/	/
	5270MHz	14.67	/	/	/	/	/	/	/	/
	5310MHz	14.51	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

**802.11ac-HT40 mode**

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT40)	5190MHz	14.81	/	/	/	/	/	/	/	/	/
	5230MHz	14.85	/	/	/	/	/	/	/	/	/
	5270MHz	14.66	/	/	/	/	/	/	/	/	/
	5310MHz	14.50	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

**802.11ac-HT80 mode**

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT80)	5210MHz	13.65	/	/	/	/	/	/	/	/	/
	5290MHz	13.50	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

The duty cycle of all mode are 100%

**Conclusion: PASS**

### A.3. Peak Power Spectral Density (conducted)

#### Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method Section F is made according to KDB 789033

#### Measurement Results:

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	5.14	P
	5200 MHz	5.22	P
	5240 MHz	5.37	P
	5260 MHz	5.40	P
	5280 MHz	5.50	P
	5320 MHz	5.61	P
802.11n HT20	5180 MHz	3.93	P
	5200 MHz	3.94	P
	5240 MHz	4.02	P
	5260 MHz	3.62	P
	5280 MHz	4.17	P
	5320 MHz	4.23	P
802.11ac VHT40	5190 MHz	0.99	P
	5230 MHz	1.02	P
	5270 MHz	1.14	P
	5310 MHz	1.24	P
802.11ac VHT80	5210MHz	-3.19	P
	5290MHz	-3.06	P

**Conclusion: PASS**



#### A.4. Occupied 26dB Bandwidth(conducted)

##### Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

##### Measurement Uncertainty:

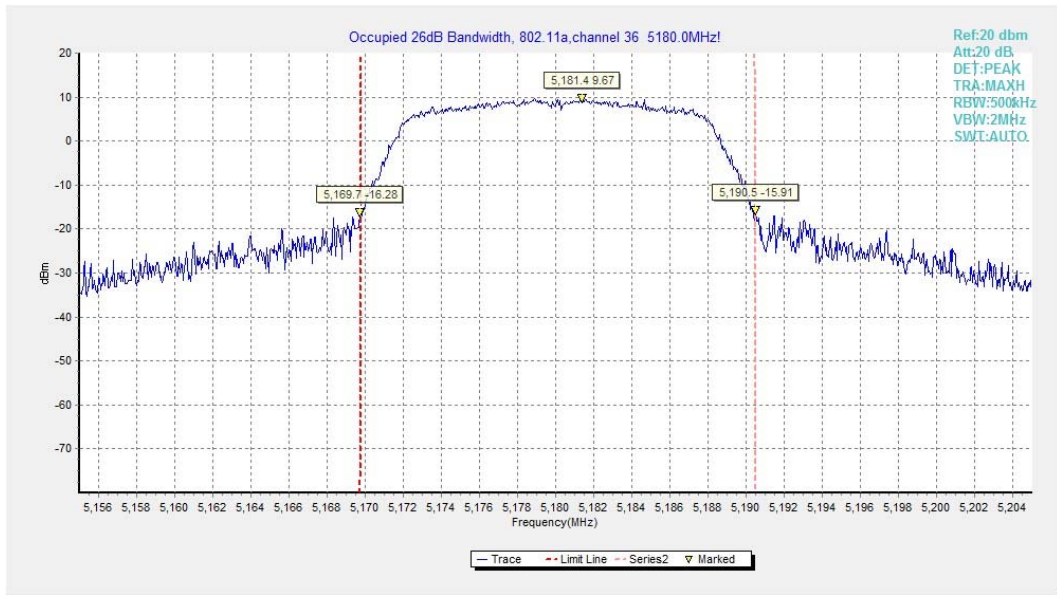
Measurement Uncertainty	60.80Hz
-------------------------	---------

##### Measurement Result:

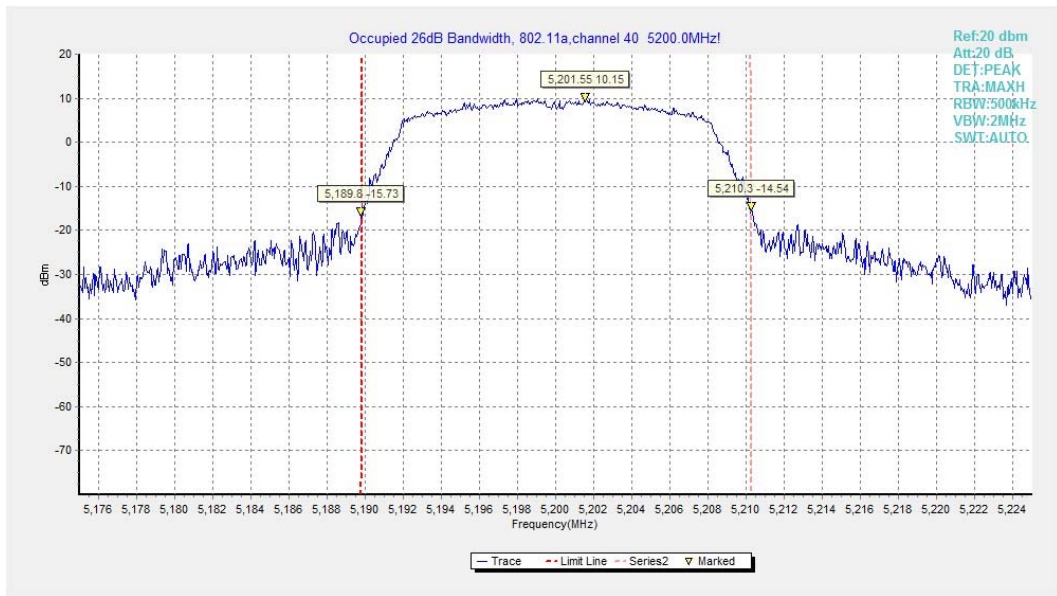
Mode	Frequency	Occupied 26dB Bandwidth ( MHz)		conclusion
		Fig.	Value	
802.11a	5180 MHz	Fig.1	20.80	P
	5200 MHz	Fig.2	20.50	P
	5240 MHz	Fig.3	20.55	P
	5260 MHz	Fig.4	20.60	P
	5280 MHz	Fig.5	20.65	P
	5320 MHz	Fig.6	20.40	P
802.11n HT20	5180 MHz	Fig.7	20.75	P
	5200 MHz	Fig.8	20.65	P
	5240 MHz	Fig.9	20.80	P
	5260 MHz	Fig.10	20.65	P
	5280 MHz	Fig.11	20.75	P
	5320 MHz	Fig.12	20.95	P
802.11ac VHT40	5190 MHz	Fig.13	40.88	P
	5230 MHz	Fig.14	41.04	P
	5270 MHz	Fig.15	40.96	P
	5310 MHz	Fig.16	40.56	P
802.11ac VHT80	5210MHz	Fig.17	81.28	P
	5290MHz	Fig.18	81.28	P

**Conclusion: PASS**

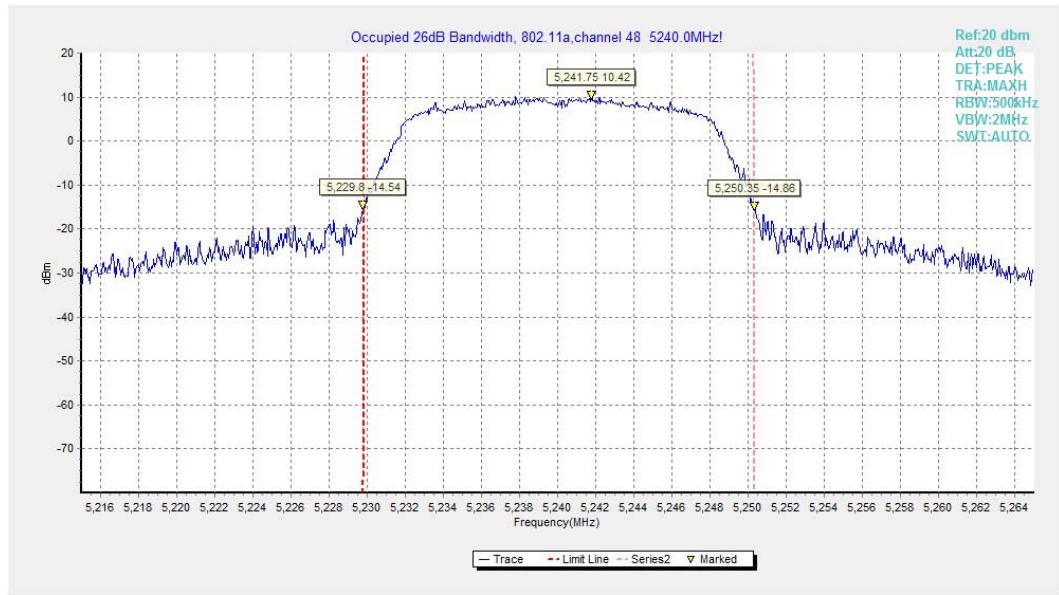
Test graphs as below:



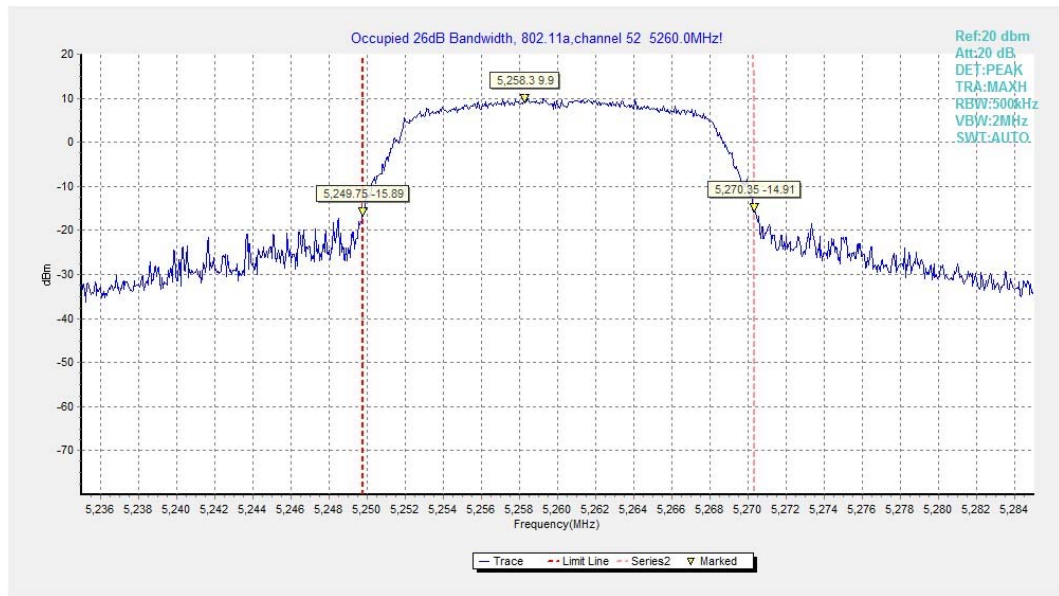
**Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)**



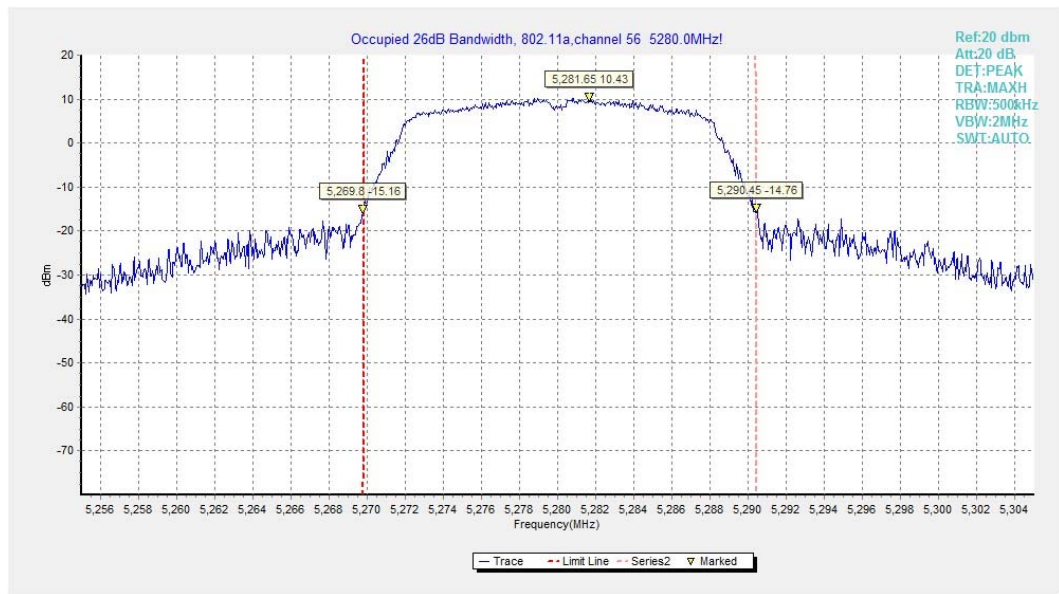
**Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)**



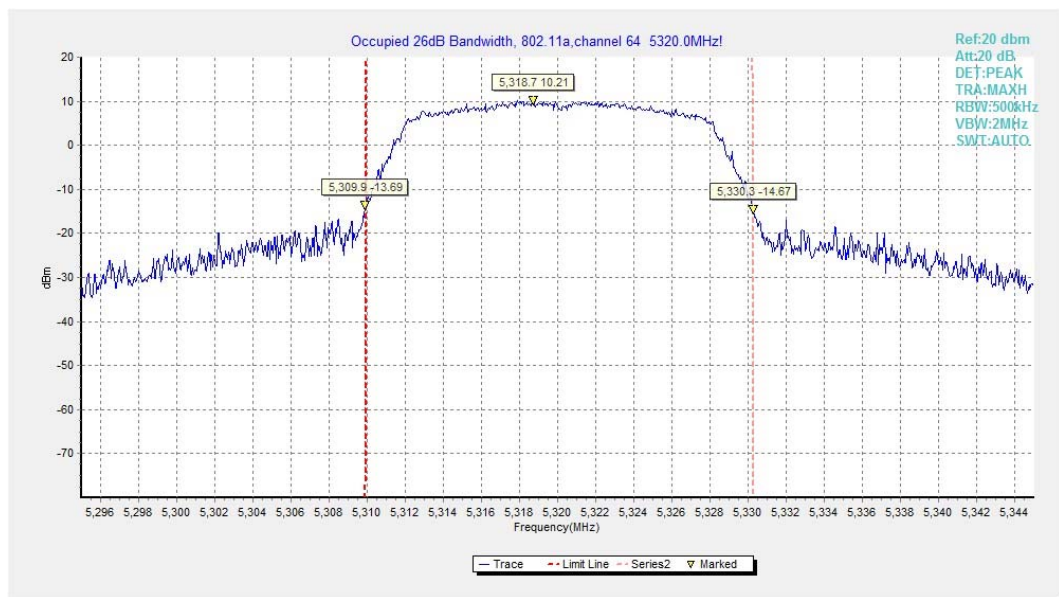
**Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)**



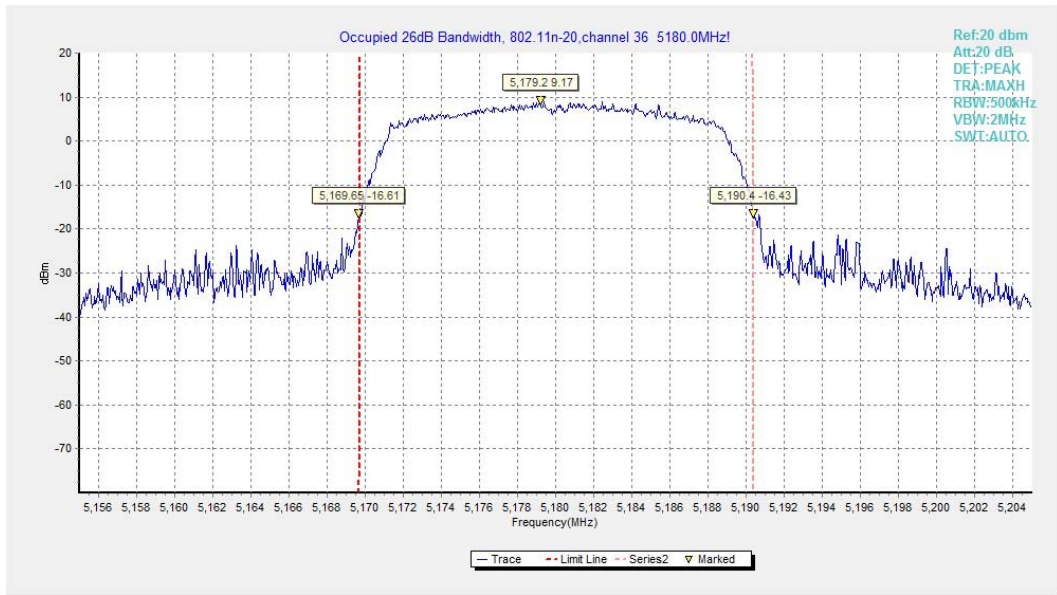
**Fig.4 Occupied 26dB Bandwidth (802.11a, 5260MHz)**



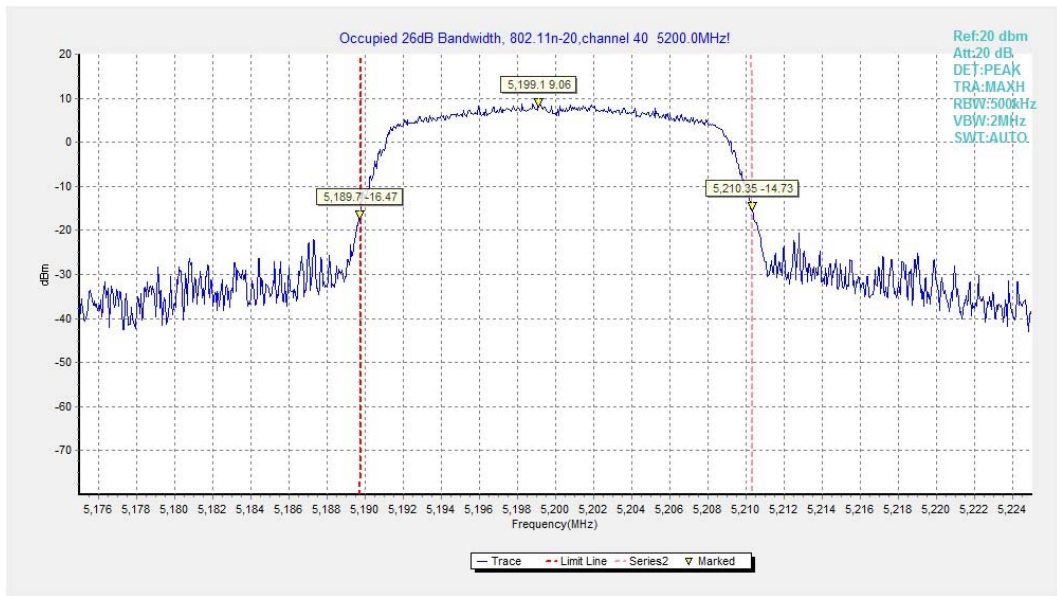
**Fig.5 Occupied 26dB Bandwidth (802.11a, 5280MHz)**



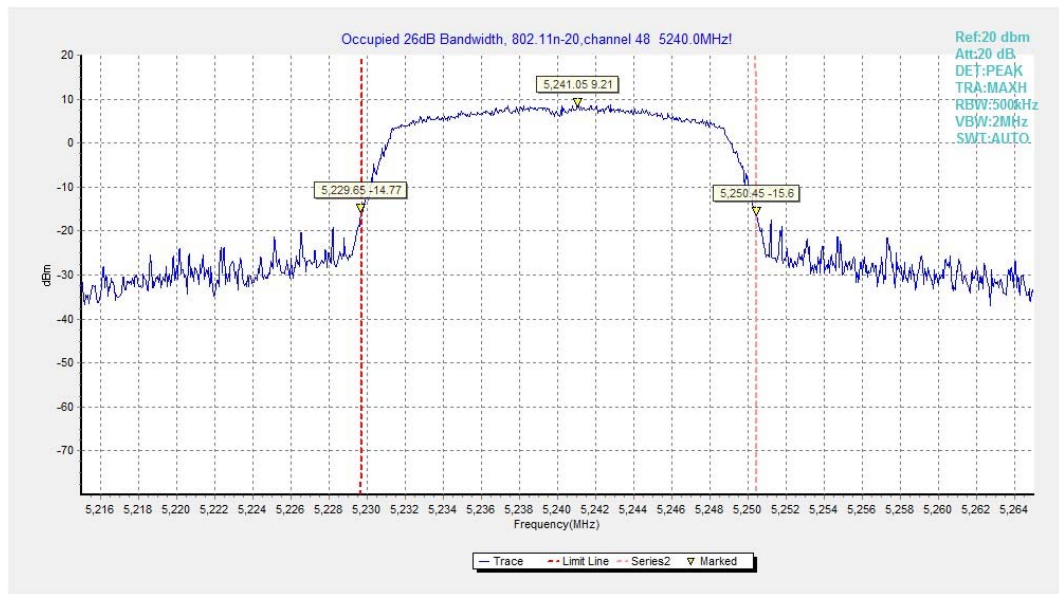
**Fig.6 Occupied 26dB Bandwidth (802.11a, 5320MHz)**



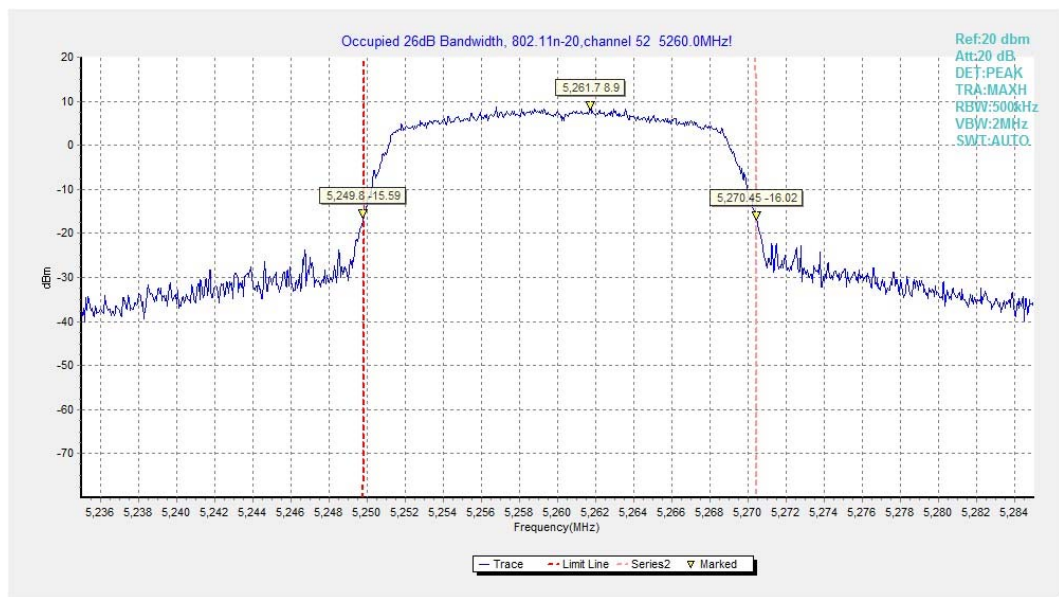
**Fig.7 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)**



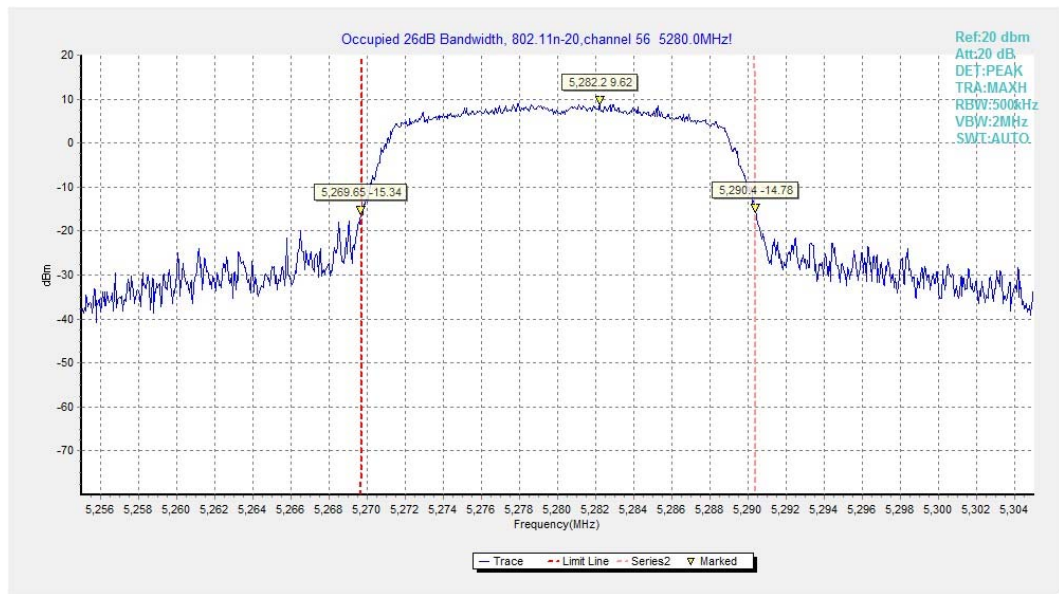
**Fig.8 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)**



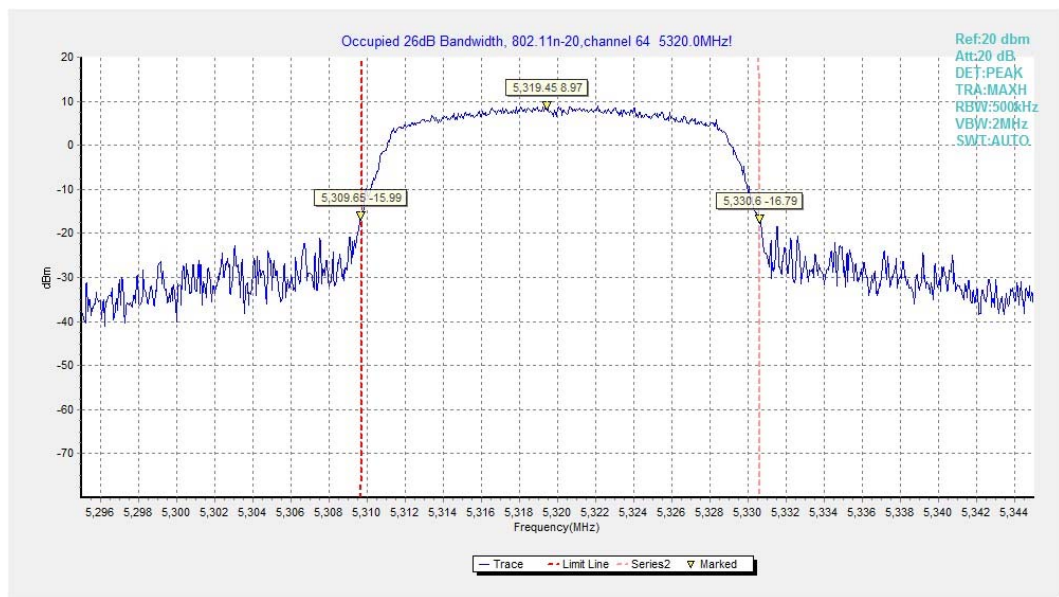
**Fig.9 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)**



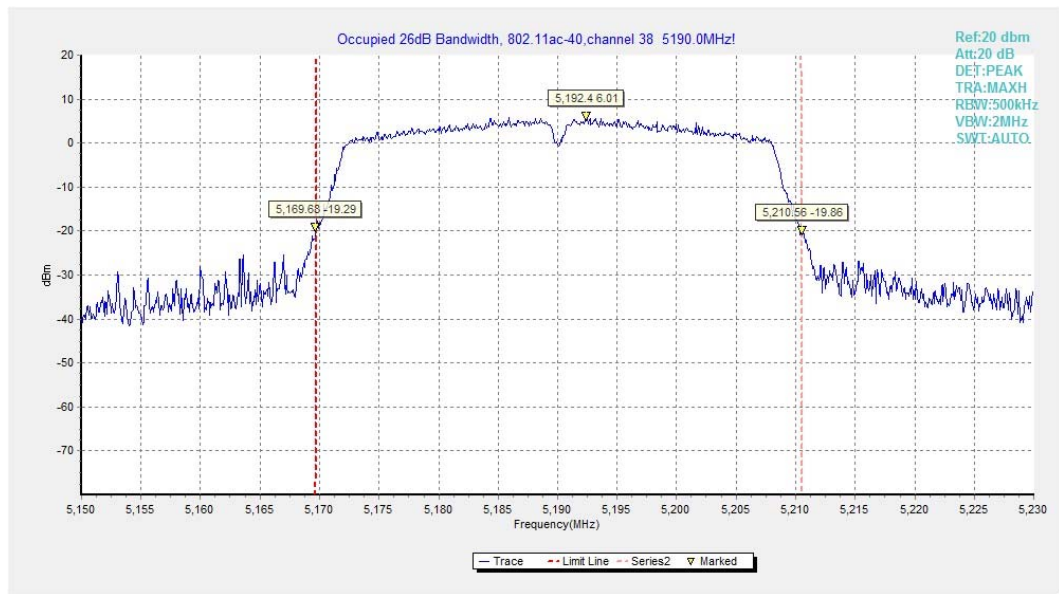
**Fig.10 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)**



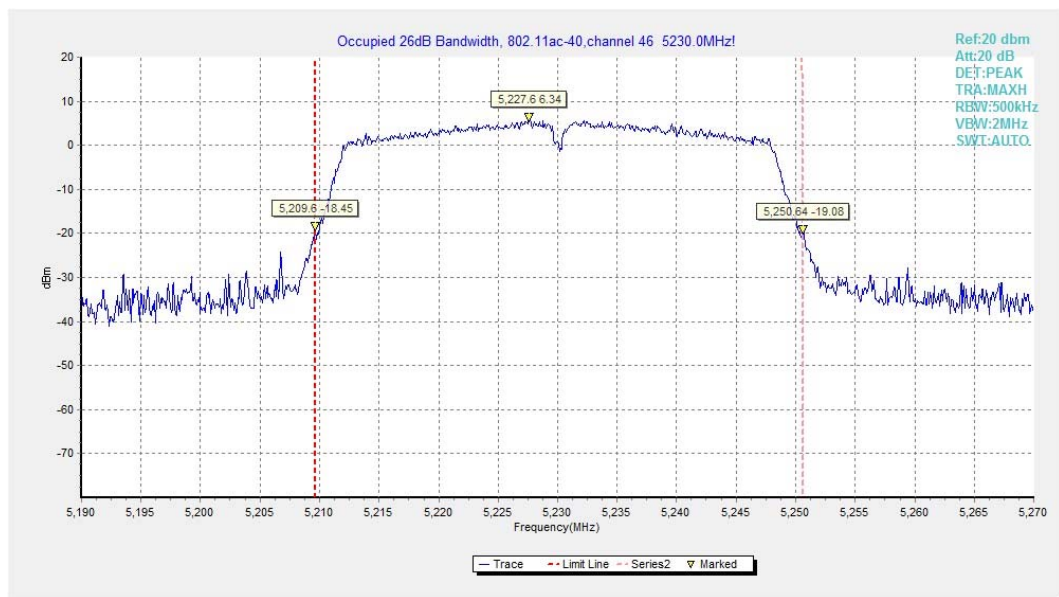
**Fig.11 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)**



**Fig.12 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)**

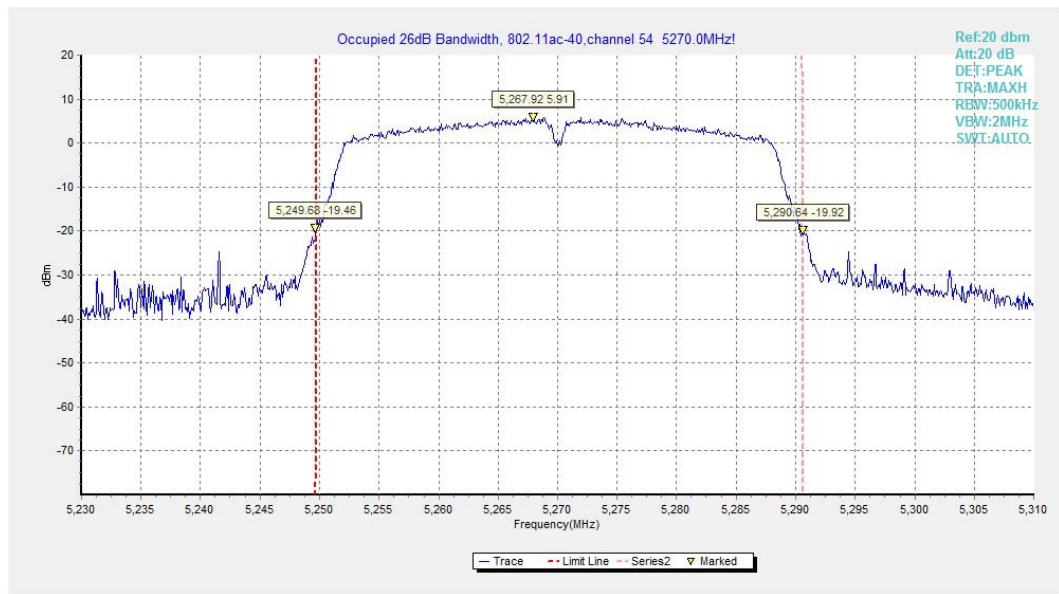


**Fig.13 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)**

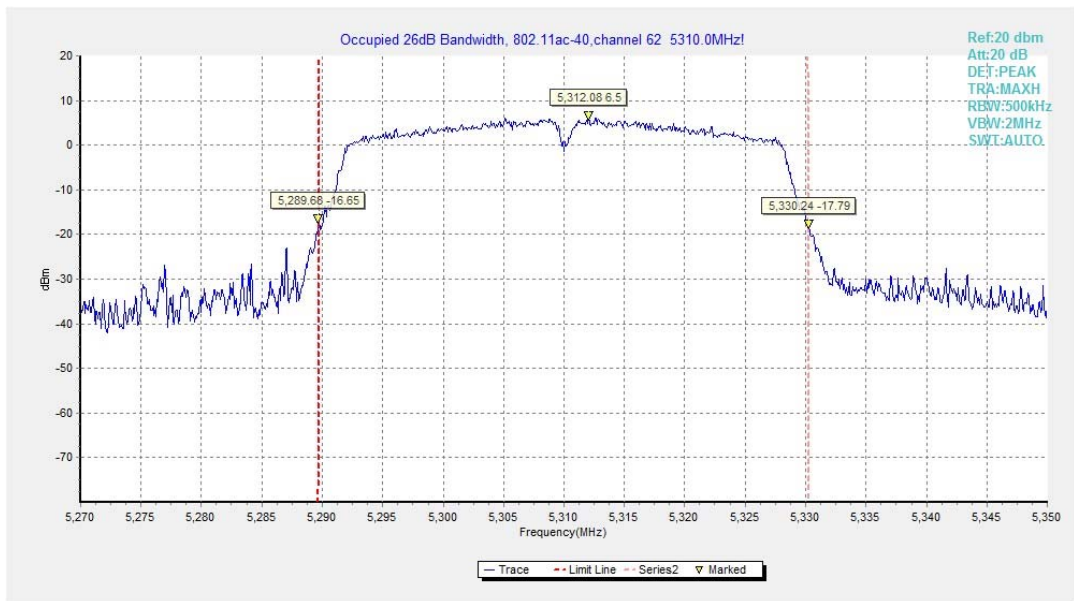


**Fig.14 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)**

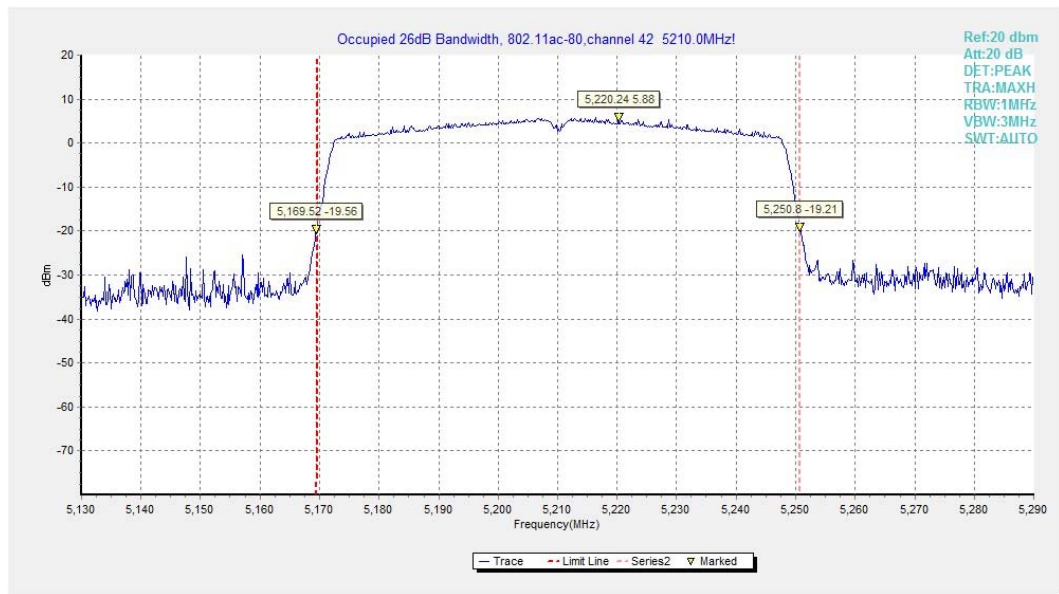




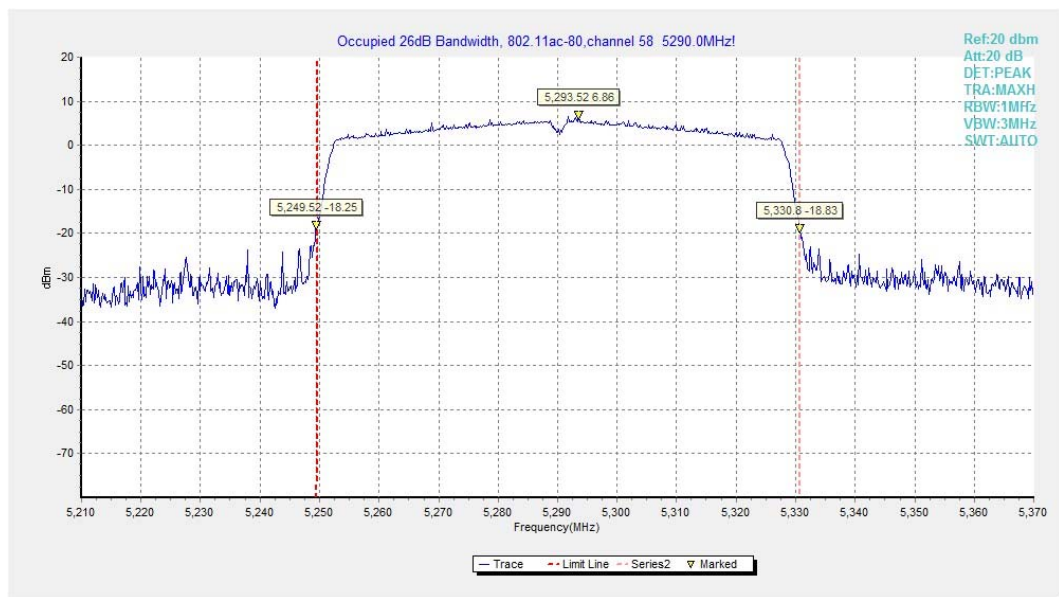
**Fig.15 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)**



**Fig.16 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)**



**Fig.17 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)**



**Fig.18 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)**

## A.5. Band Edges Compliance

### A5.1 Band Edges - Radiated

#### Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

#### Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m and the table height shall be 1.5 m.

The EUT and transmitting antenna shall be centered on the turntable.

#### Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

#### The receiver references:

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

Sweep frequency from 1 GHz to 40GHz, RBW = 1MHz, VBW = 3MHz

#### Sample Calculations

1. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \sqrt{EIRP - 20 \log(D) + 104.77} \quad \text{Where:}$$

$E$  is the field strength in dB $\mu$ V/m

$D$  is the measurement distance in meters

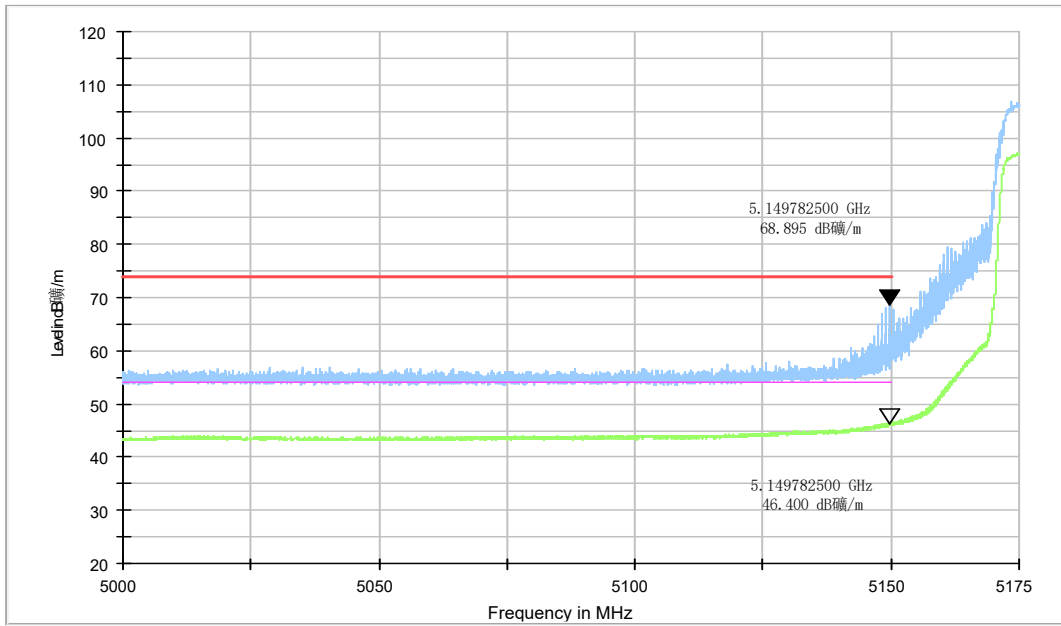
EIRP is the equivalent isotropically radiated power in dbm

**Measurement Result:**

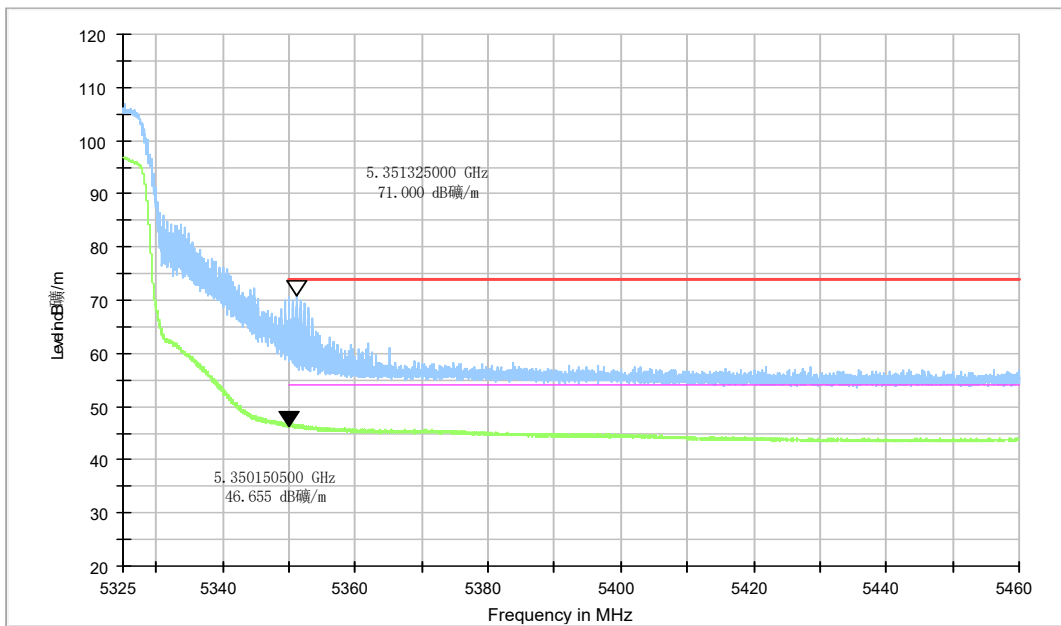
Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.19	P
	5320 MHz	Fig.20	P
	5500 MHz	Fig.21	P
	5700 MHz	Fig.22	P
802.11n HT20	5180 MHz	Fig.23	P
	5320 MHz	Fig.24	P
	5500 MHz	Fig.25	P
	5700 MHz	Fig.26	P
802.11n HT40	5190 MHz	Fig.27	P
	5310 MHz	Fig.28	P
	5510 MHz	Fig.29	P
	5670 MHz	Fig.30	P
802.11ac HT20	5180 MHz	Fig.31	P
	5320 MHz	Fig.32	P
	5500 MHz	Fig.33	P
	5700 MHz	Fig.34	P
802.11ac HT40	5190 MHz	Fig.35	P
	5310 MHz	Fig.36	P
	5510 MHz	Fig.37	P
	5670 MHz	Fig.38	P
802.11ac HT80	5210MHz	Fig.39	P
	5290MHz	Fig.40	P
	5530MHz	Fig.41	P
	5610MHz	Fig.42	P

**Conclusion: PASS**

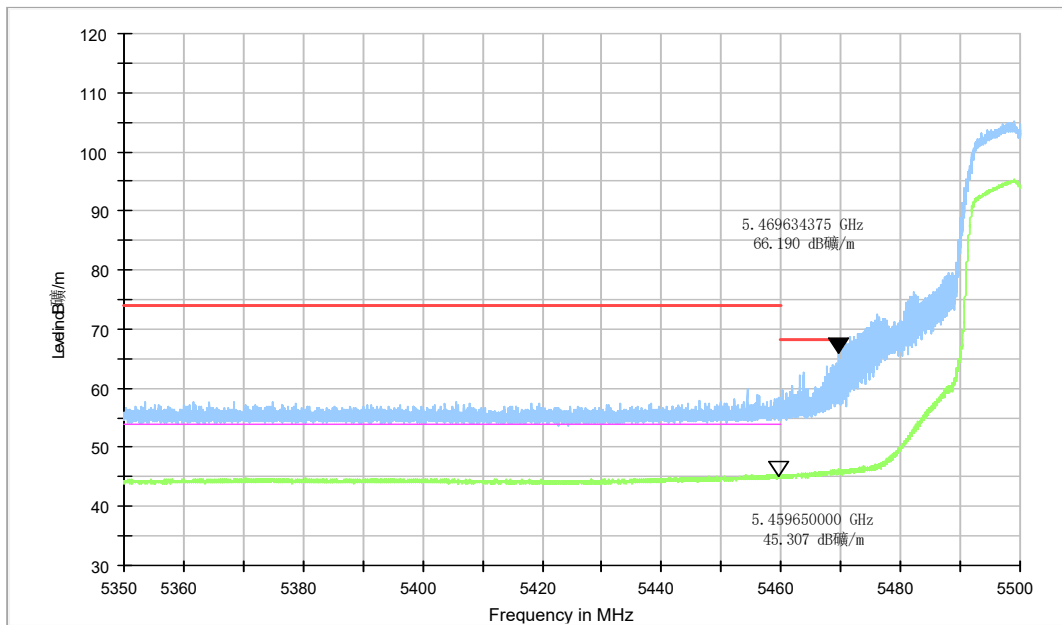
**Test graphs as below:**



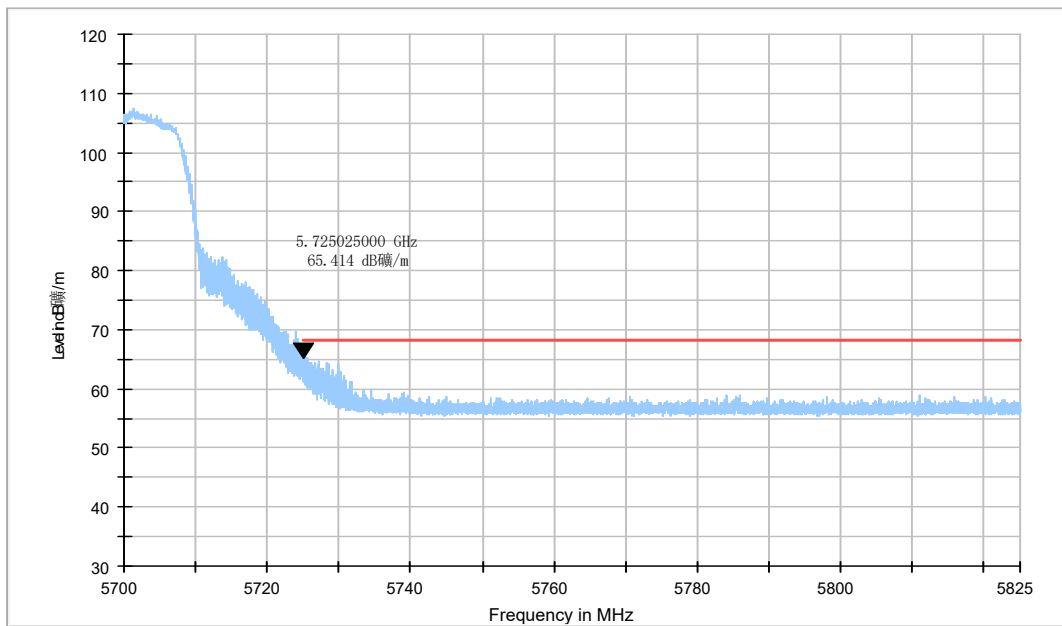
**Fig.19 Band Edges (802.11a Ch36, 5180MHz)**



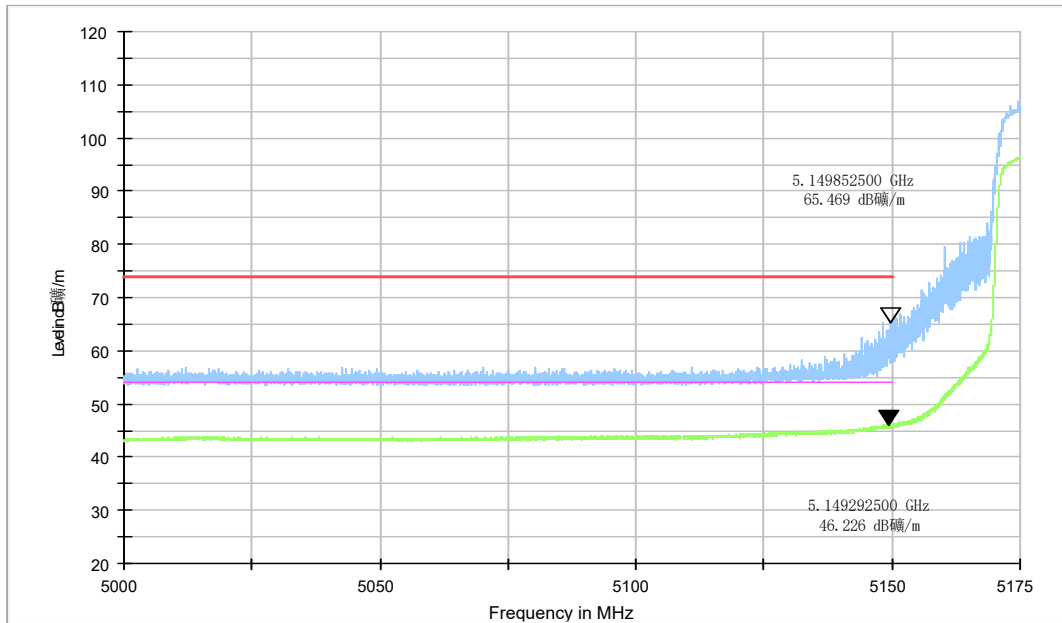
**Fig.20 Band Edges (802.11a Ch64, 5320MHz)**



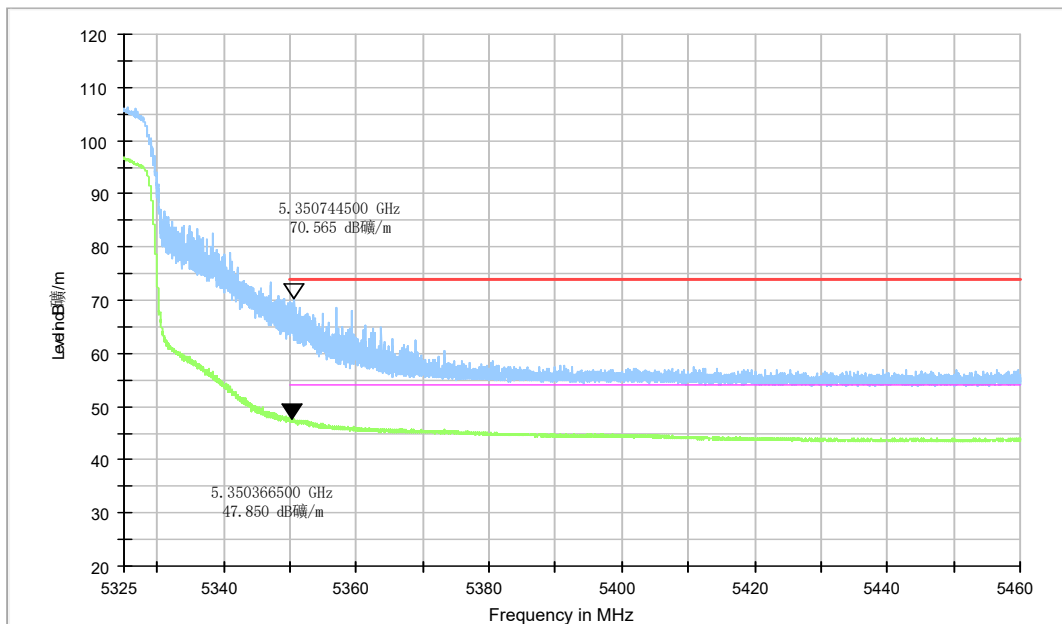
**Fig.21 Band Edges (802.11a Ch100, 5500MHz)**



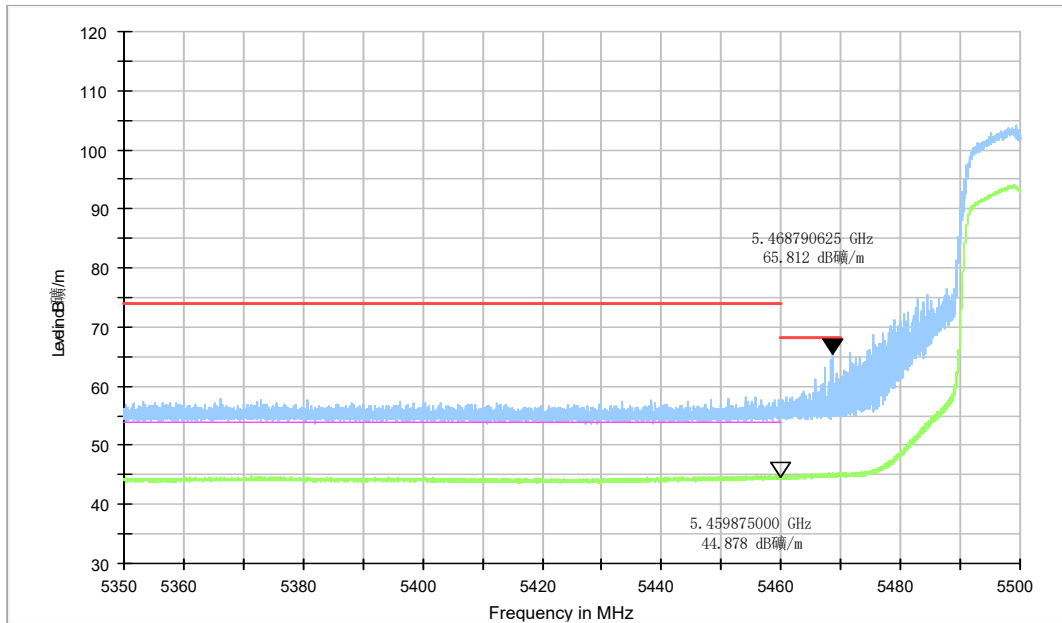
**Fig.22 Band Edges (802.11a Ch140, 5700MHz)**



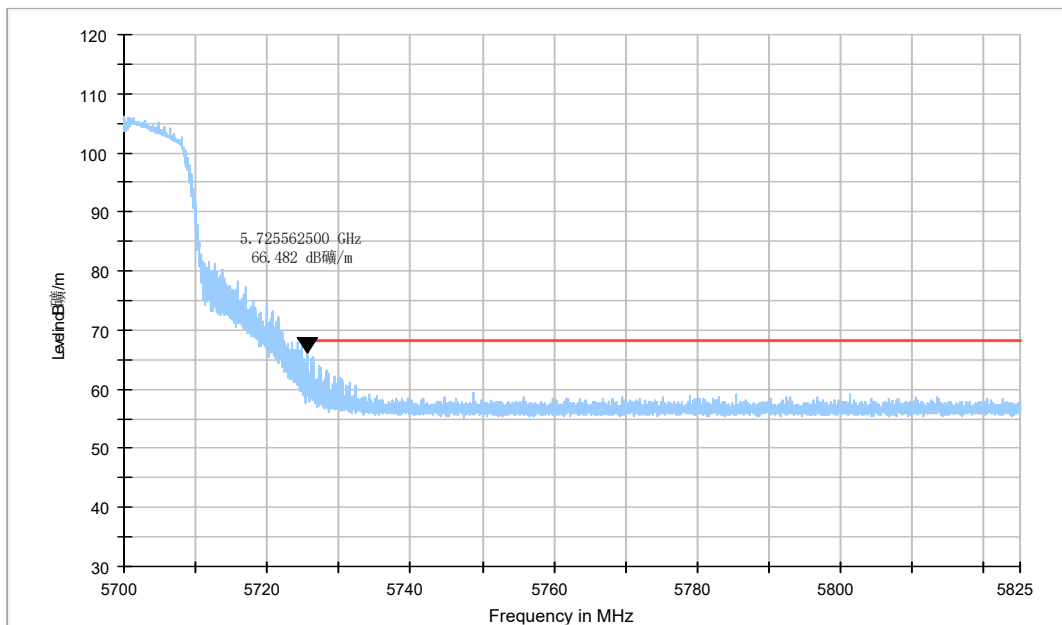
**Fig.23 Band Edges (802.11n-HT20 Ch36, 5180MHz)**



**Fig.24 Band Edges (802.11n-HT20 Ch64, 5320MHz)**

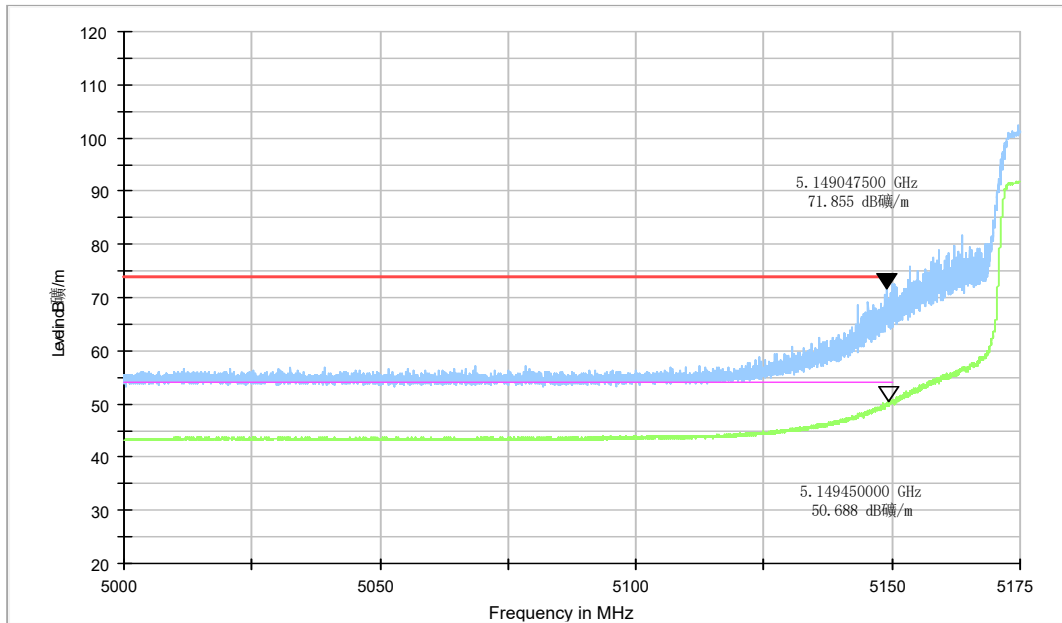


**Fig.25 Band Edges (802.11n-HT20 Ch100, 5500MHz)**

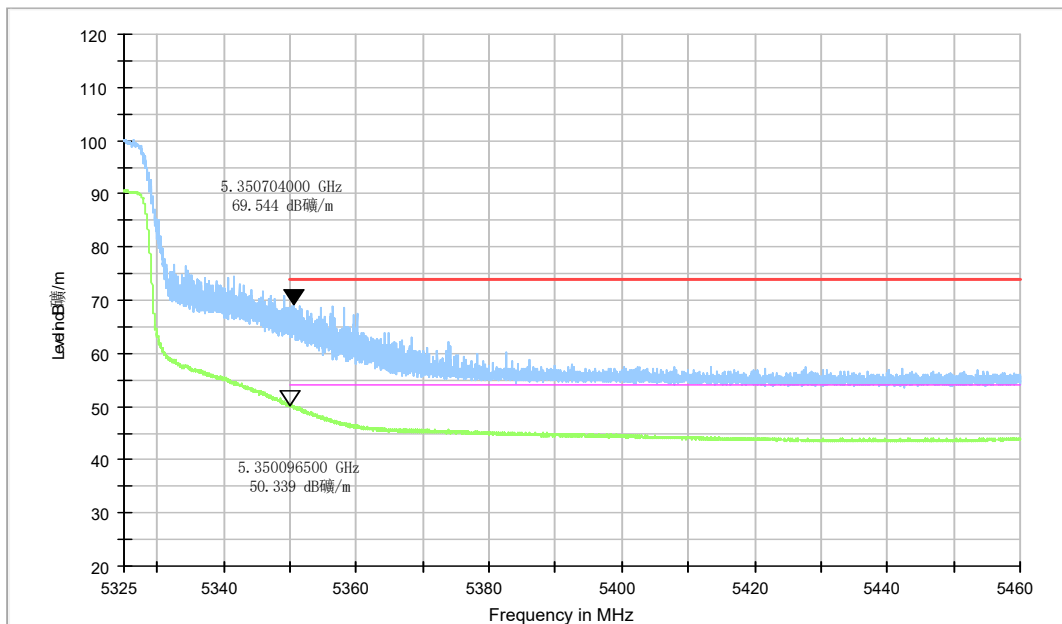


**Fig.26 Band Edges (802.11n-HT20 Ch140, 5700MHz)**

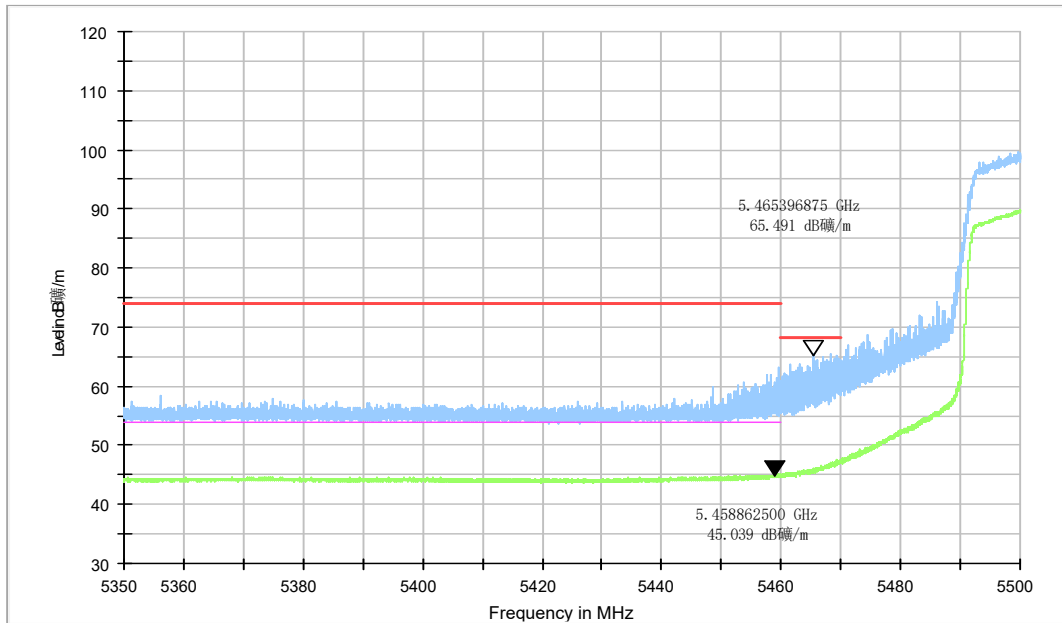




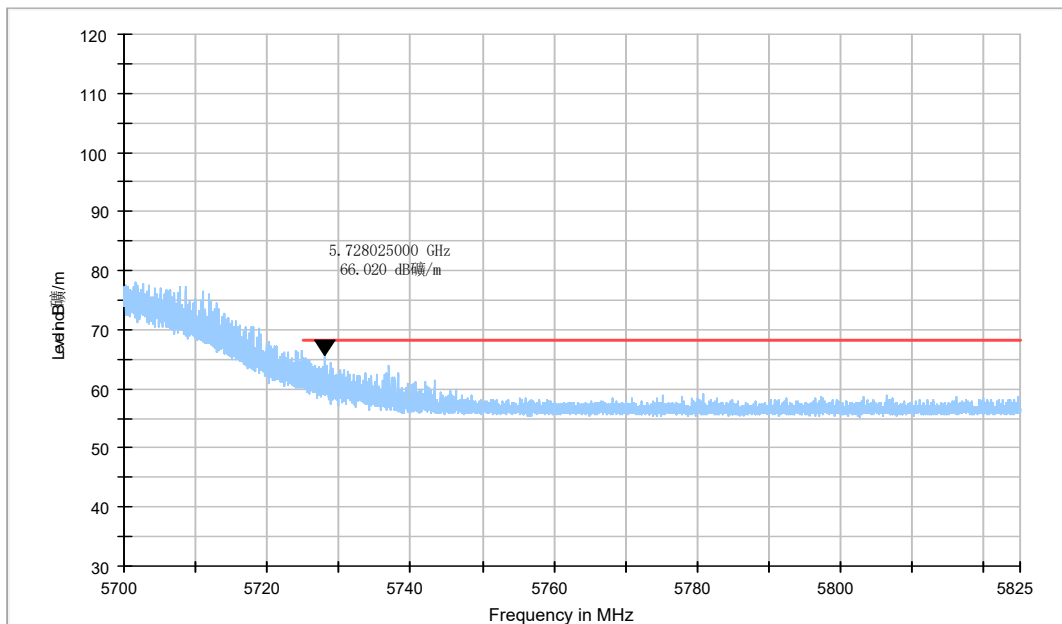
**Fig.27 Band Edges (802.11n-HT40 Ch38, 5190MHz)**



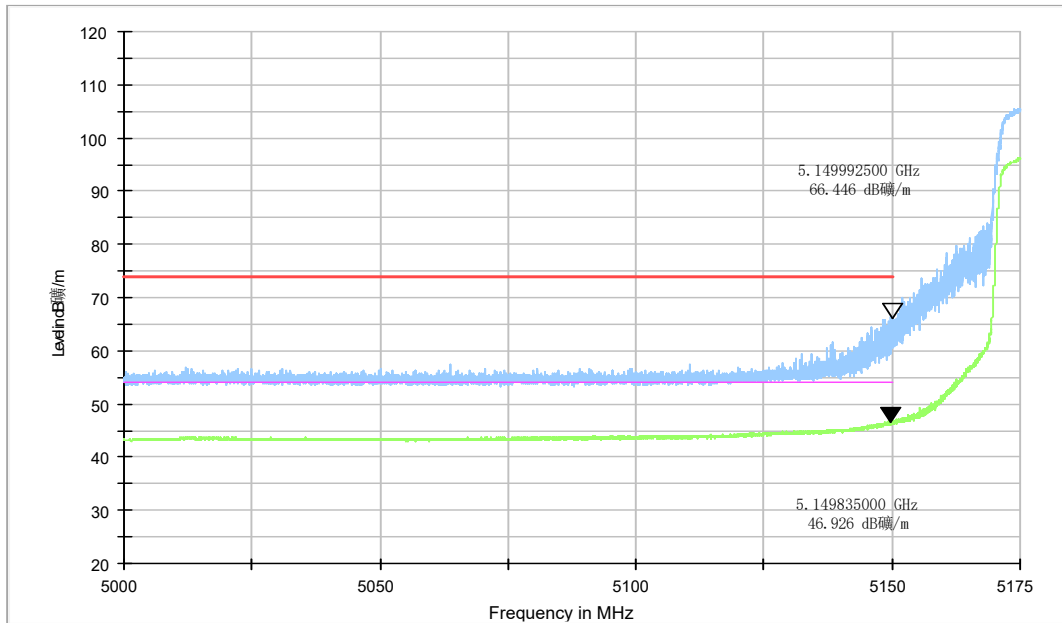
**Fig.28 Band Edges (802.11n-HT40 Ch62, 5310MHz)**



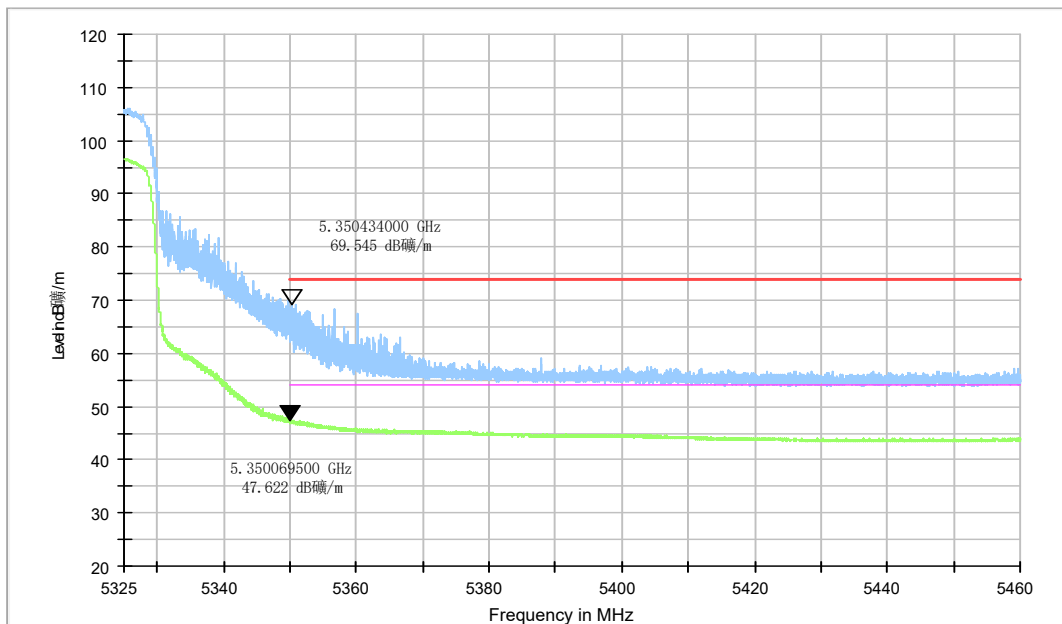
**Fig.29 Band Edges (802.11n-HT40 Ch102, 5510MHz)**



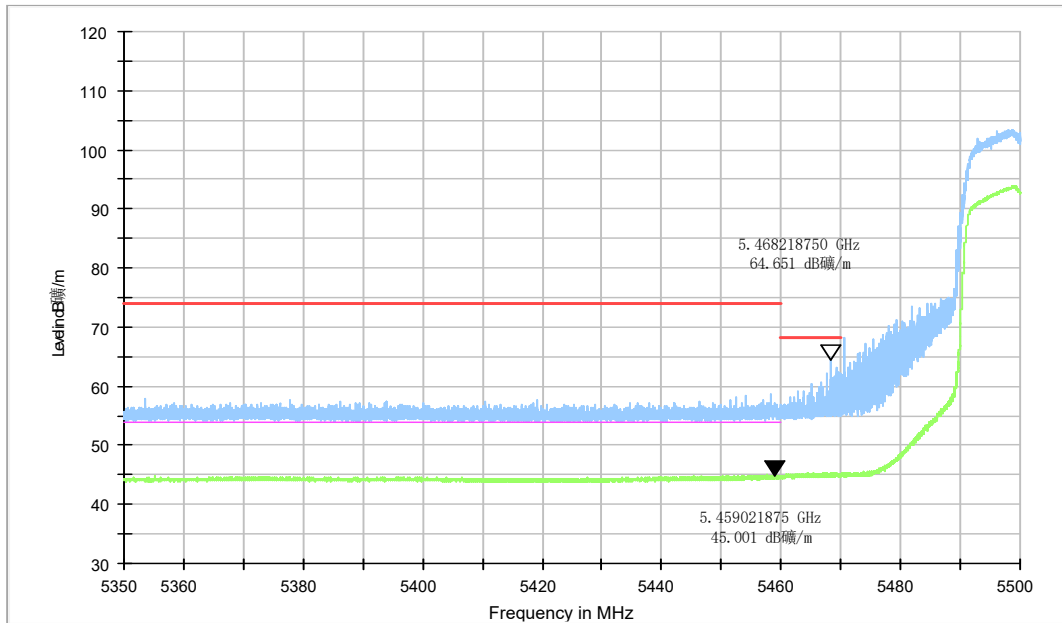
**Fig.30 Band Edges (802.11n-HT40 Ch134, 5670MHz)**



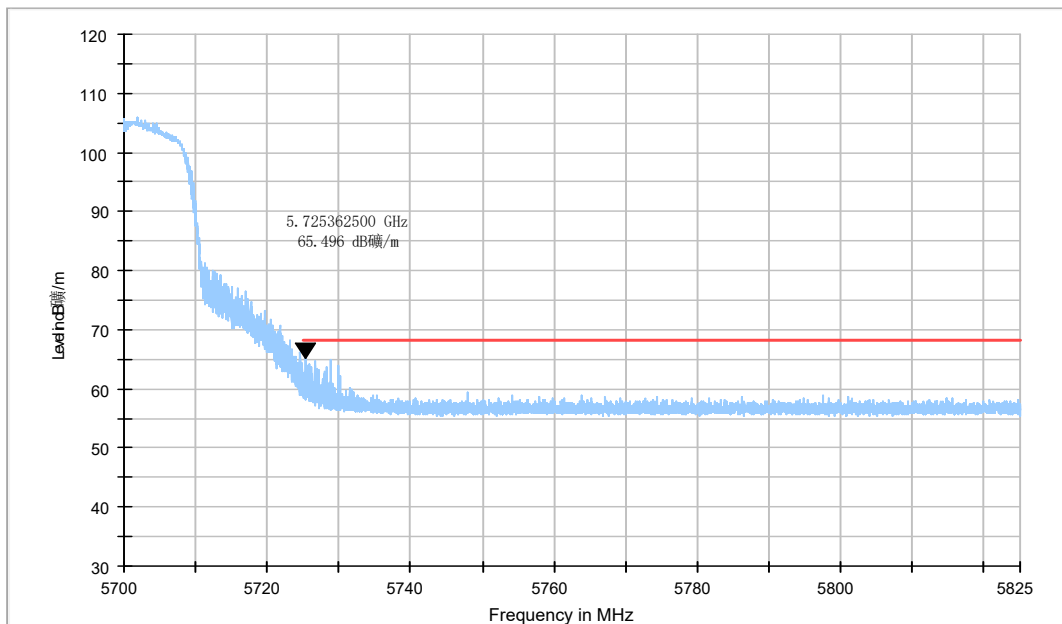
**Fig.31 Band Edges (802.11ac-HT20 Ch36, 5180MHz)**



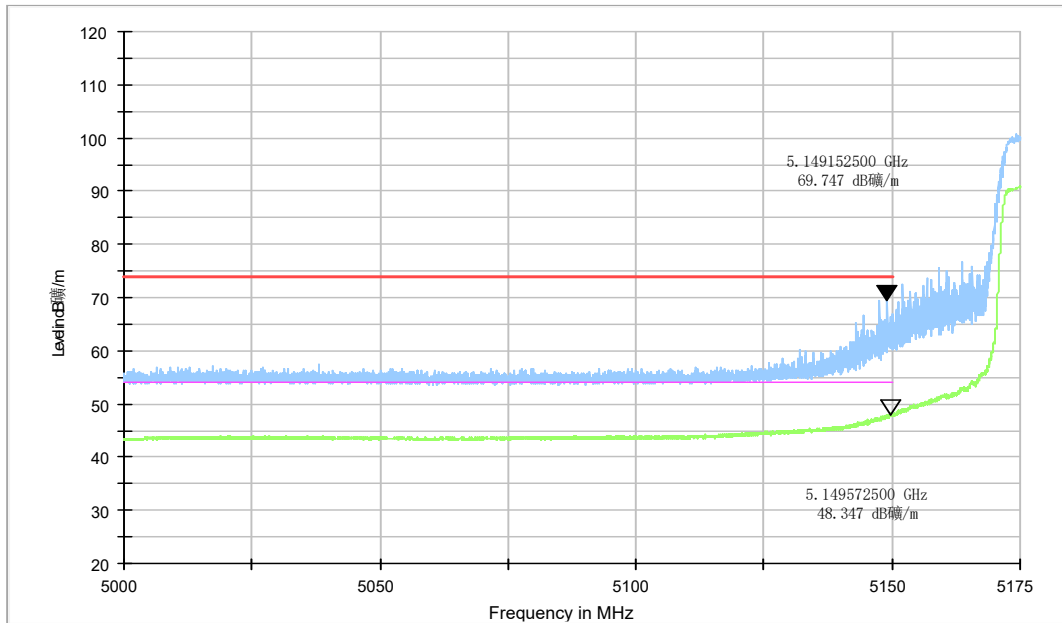
**Fig.32 Band Edges (802.11ac-HT20 Ch64, 5320MHz)**



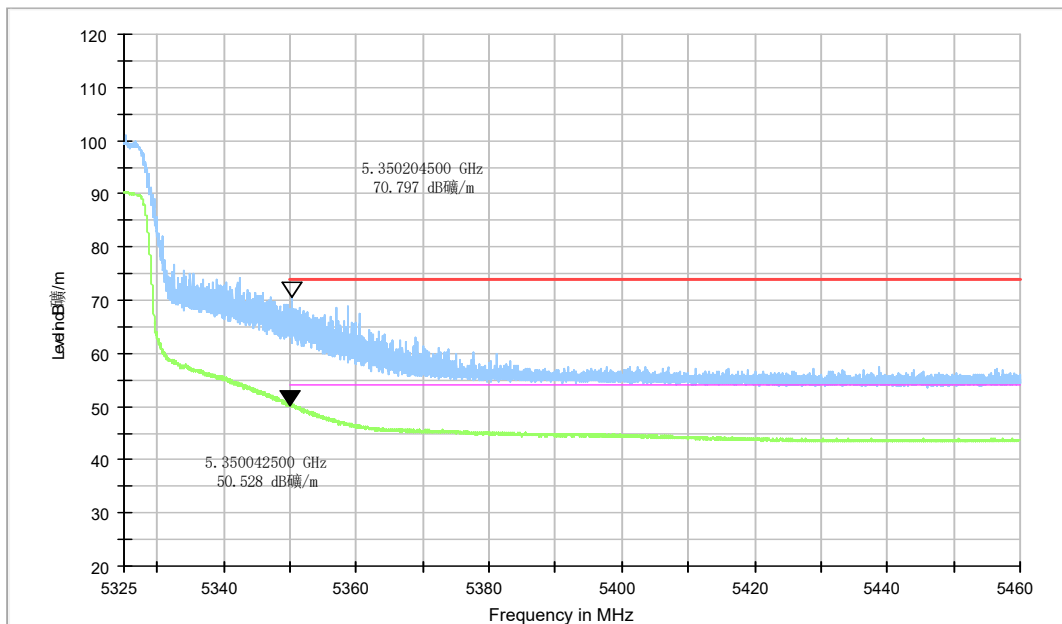
**Fig.33 Band Edges (802.11ac-HT20 Ch100, 5500MHz)**



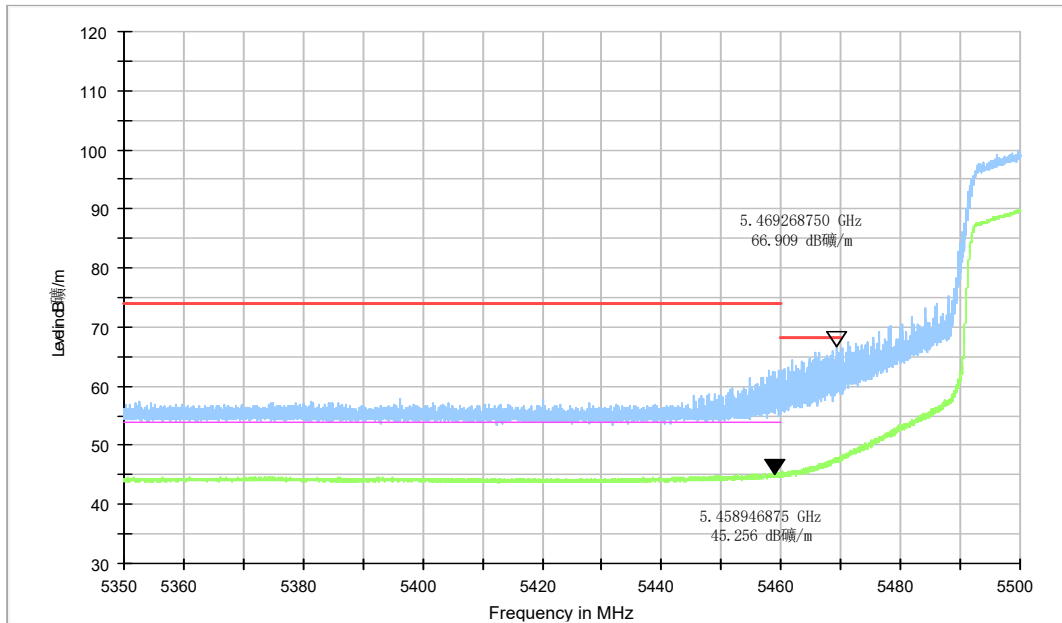
**Fig.34 Band Edges (802.11ac-HT20 Ch140, 5700MHz)**



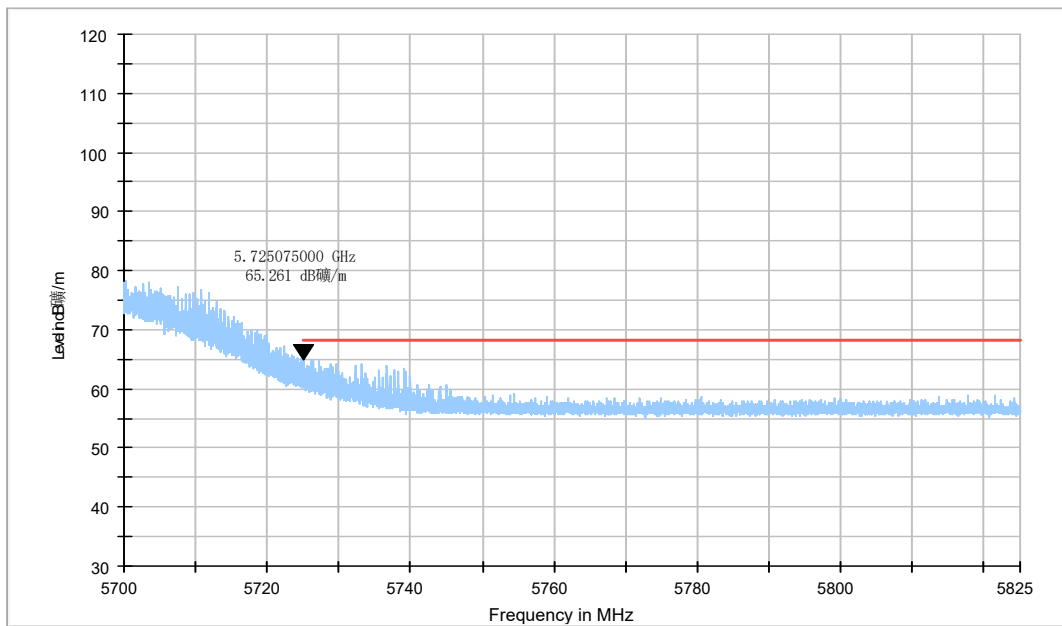
**Fig.35 Band Edges (802.11ac-HT40 Ch38, 5190MHz)**



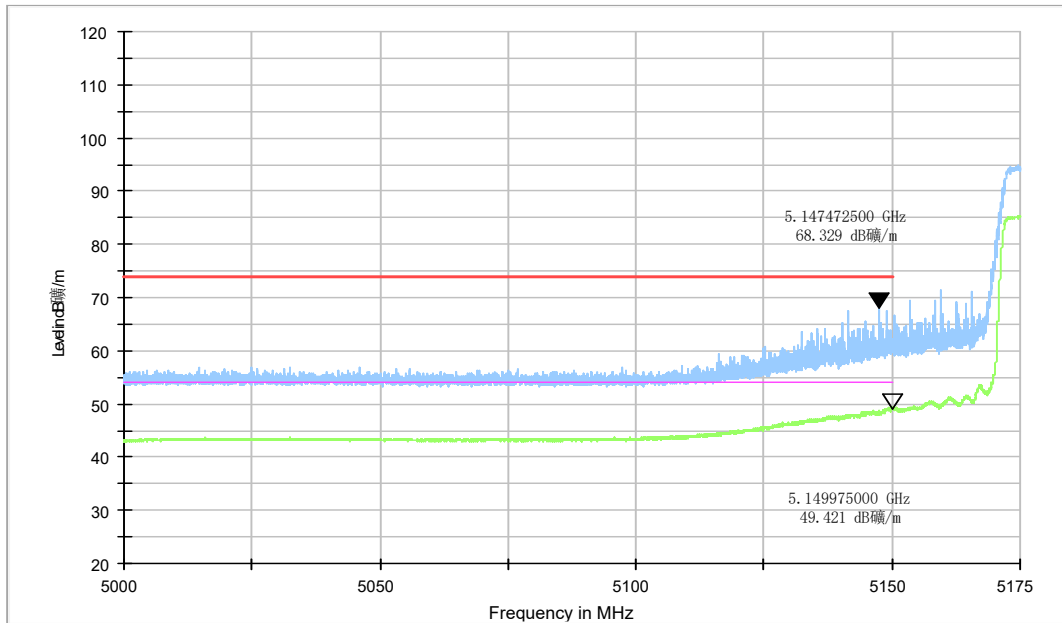
**Fig.36 Band Edges (802.11ac-HT40 Ch62, 5310MHz)**



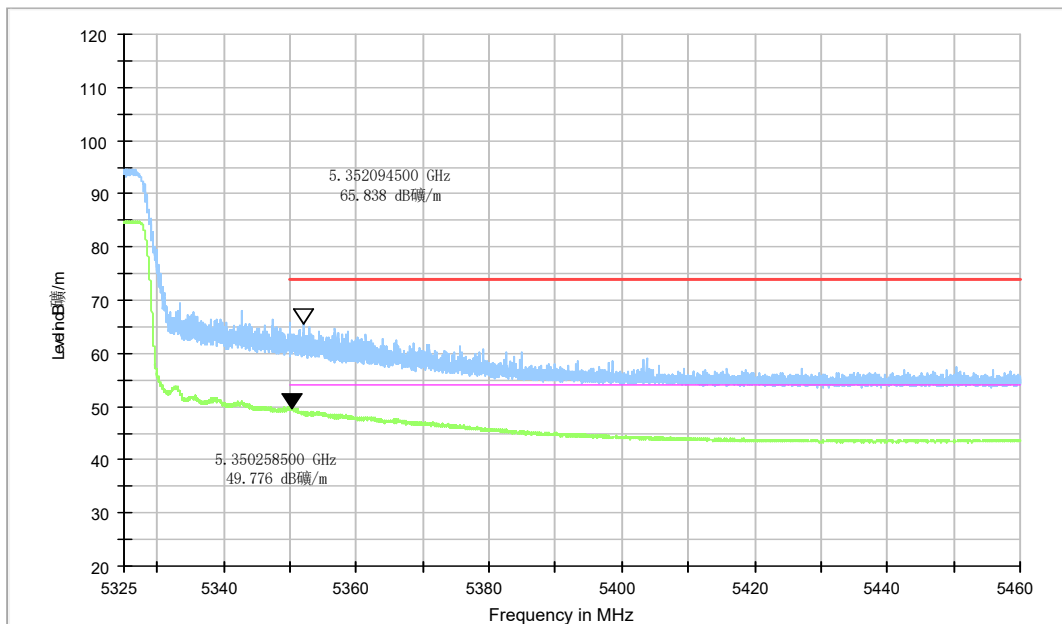
**Fig.37 Band Edges (802.11ac-HT40 Ch102, 5510MHz)**



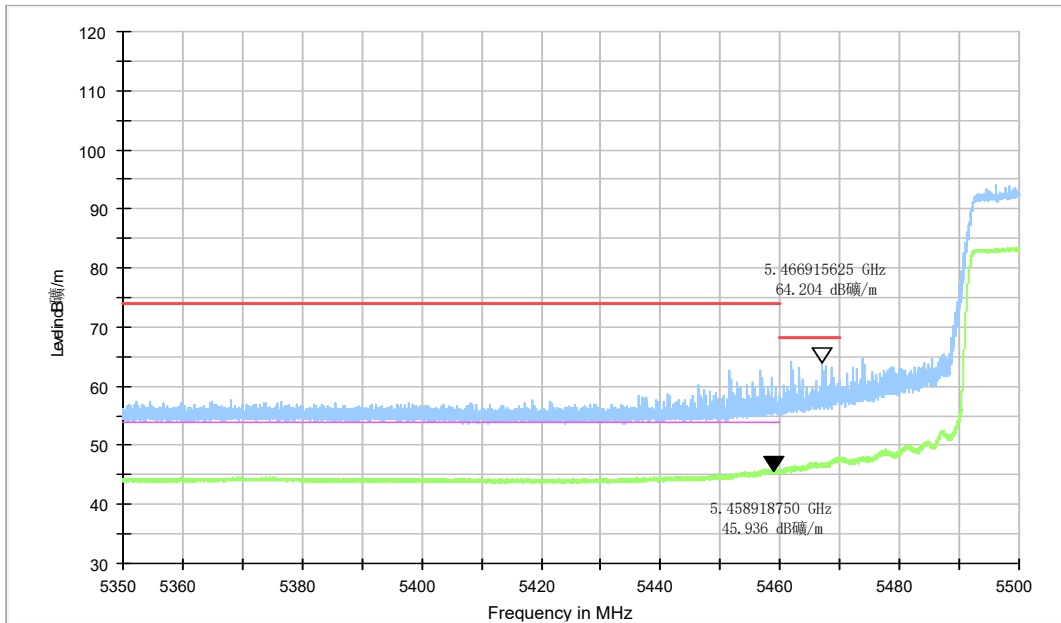
**Fig.38 Band Edges (802.11ac-HT40 Ch134, 5670MHz)**



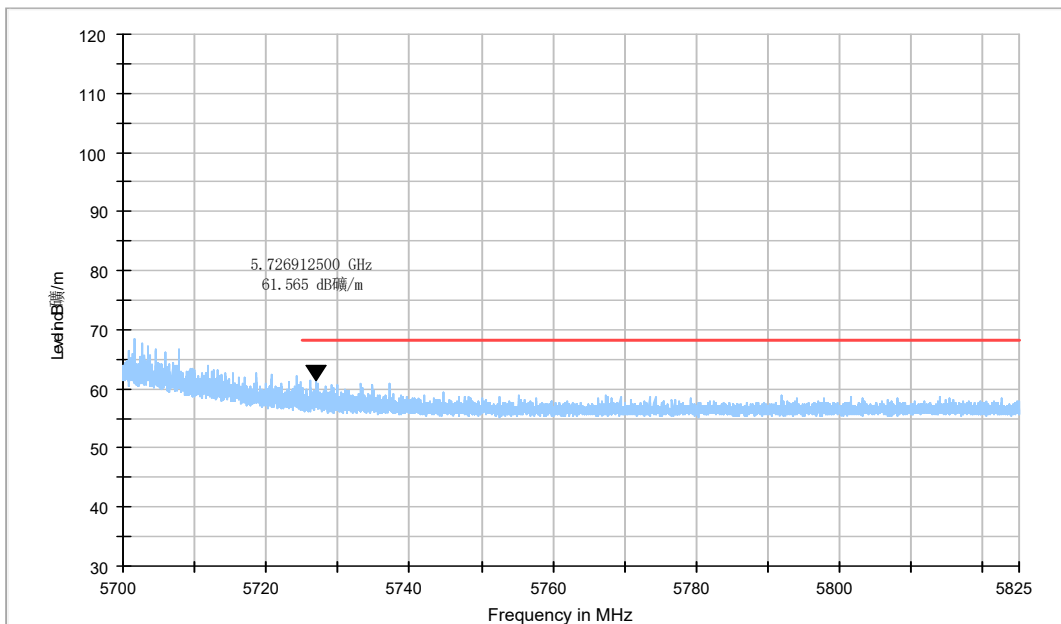
**Fig.39 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)**



**Fig.40 Band Edges (802.11ac-HT80 Ch58, 5290MHz)**



**Fig.41 Band Edges (802.11ac-HT80 Ch106, 5530MHz)**



**Fig.42 Band Edges (802.11ac-HT80 Ch122, 5610MHz)**



## A.6. Transmitter Spurious Emission

### Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

### Limit in restricted band:

Frequency (MHz)	Field strength( $\mu$ V/m)	Measurement distance(m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength( $\mu$ V/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

### Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.

### Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

### The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-7000	1MHz/3MHz	15
7000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

### Sample Calculations

1. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log(D) + 104.77$$

Where:

$E$  is the field strength in dB $\mu$ V/m

$D$  is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dbm

2. The measurement results are obtained as described below:

$$\text{Result} = P_{\text{Mea}} + A_{\text{Rpl}} = P_{\text{Mea}} + \text{Cable Loss} + \text{Antenna Factor}$$

A "reference path loss" is established and the  $A_{\text{Rpl}}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

$P_{\text{Mea}}$  is the field strength recorded from the instrument.

### Note:

The range of evaluated frequency is from 9 kHz to 26GHz. Measurement value showed here only up to 6 maximum emissions noted.

**Measurement Results**
**AVERAGE Results:**
**802.11a**

## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.200	45.00	-23.84	34.26	34.58	54.00	9.00	V
5149.400	45.27	-23.80	34.26	34.80	54.00	8.73	V
8287.000	33.35	-32.17	35.74	29.77	54.00	20.65	V
10359.400	33.30	-32.02	37.63	27.68	54.00	20.70	V
15544.800	38.79	-26.58	40.15	25.22	54.00	15.21	V
17788.800	36.61	-25.71	41.54	20.78	54.00	17.39	H

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5136.400	43.08	-24.06	34.26	32.88	54.00	10.92	V
5367.200	43.25	-23.84	34.35	32.75	54.00	10.75	V
8320.000	35.20	-32.19	35.74	31.66	54.00	18.80	H
10400.100	34.06	-32.09	37.68	28.47	54.00	19.94	H
15597.600	40.36	-26.52	40.22	26.67	54.00	13.64	H
17788.800	36.39	-25.71	41.54	20.56	54.00	17.61	V

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5353.400	43.65	-23.91	34.34	33.21	54.00	10.35	V
5369.400	43.70	-23.83	34.35	33.19	54.00	10.30	V
8383.800	37.73	-32.19	35.72	34.19	54.00	16.27	V
10482.600	33.85	-32.13	37.78	28.19	54.00	20.15	V
15725.200	39.43	-26.34	40.37	25.39	54.00	14.57	V
17770.100	36.72	-25.70	41.55	20.87	54.00	17.28	H

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.600	44.13	-23.92	34.34	33.71	54.00	9.87	V
5361.600	44.09	-23.87	34.35	33.61	54.00	9.91	V
8415.938	46.69	-32.20	35.72	43.17	54.00	7.31	V
10518.125	38.51	-31.94	37.81	32.64	54.00	15.49	V
15779.062	48.43	-26.31	40.44	34.30	54.00	5.57	V
17987.812	38.31	-25.84	41.50	22.65	54.00	15.69	V

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5362.400	44.41	-23.87	34.35	33.93	54.00	9.59	V
5366.200	44.41	-23.85	34.35	33.91	54.00	9.59	V
8447.679	46.85	-32.24	35.71	43.39	54.00	7.15	V
10558.500	38.83	-31.73	37.82	32.73	54.00	15.17	V
15840.071	48.47	-26.30	40.51	34.26	54.00	5.53	H
17987.821	38.97	-25.84	41.50	23.31	54.00	15.03	V

## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.200	45.66	-23.92	34.34	35.24	54.00	8.34	V
5351.000	45.59	-23.92	34.34	35.16	54.00	8.41	V
8511.714	46.55	-32.37	35.71	43.21	54.00	7.45	V
10637.857	37.94	-32.04	37.86	32.13	54.00	16.06	H
15960.679	47.80	-26.23	40.65	33.38	54.00	6.20	H
17990.964	39.06	-25.85	41.50	23.41	54.00	14.94	H

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5425.600	43.59	-24.28	34.37	33.49	54.00	10.41	V
5454.800	43.66	-24.16	34.38	33.44	54.00	10.34	V
8799.500	40.88	-32.19	36.06	37.00	54.00	13.12	H
11005.000	38.59	-31.53	38.00	32.11	54.00	15.41	H
16498.000	42.96	-25.91	41.50	27.37	54.00	11.04	V
17930.500	38.48	-25.80	41.51	22.77	54.00	15.52	V

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5371.600	43.47	-23.82	34.35	32.94	54.00	10.53	V
5375.600	43.48	-23.82	34.35	32.95	54.00	10.52	V
8928.000	39.08	-32.36	36.22	35.22	54.00	14.93	V
11157.500	41.06	-31.86	38.06	34.86	54.00	12.94	H
16740.000	45.69	-25.51	41.84	29.36	54.00	8.32	H
17987.000	38.98	-25.84	41.50	23.32	54.00	15.02	H

## Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5790.000	44.67	-23.01	34.93	32.75	48.30	3.63	V
5836.400	44.50	-22.90	35.01	32.38	48.30	3.80	V
9120.000	34.83	-32.39	36.35	30.87	48.30	13.47	V
11398.000	38.96	-31.79	38.16	32.58	48.30	9.34	H
17097.500	42.36	-25.77	42.08	26.04	48.30	5.94	H
17931.500	38.49	-25.80	41.51	22.78	48.30	9.80	H

## Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5369.800	43.21	-23.83	34.35	32.69	54.00	10.79	V
5374.200	43.34	-23.81	34.35	32.80	54.00	10.66	V
9152.000	33.03	-32.20	36.36	28.87	54.00	20.97	H
11439.500	38.70	-31.56	38.18	32.08	54.00	15.30	H
17159.500	42.31	-25.80	42.01	26.10	54.00	11.69	H
17983.000	38.86	-25.84	41.50	23.20	54.00	15.14	V

**802.11n-HT20**

## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5143.200	43.17	-23.92	34.26	32.83	54.00	10.83	V
5147.600	43.32	-23.83	34.26	32.89	54.00	10.68	V
8287.000	35.36	-32.17	35.74	31.79	54.00	18.64	V
10359.400	35.78	-32.02	37.63	30.17	54.00	18.22	H
15543.700	41.24	-26.58	40.15	27.67	54.00	12.76	V
17750.300	37.09	-25.68	41.55	21.22	54.00	16.91	H

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5136.600	43.77	-24.05	34.26	33.56	54.00	10.23	V
5372.400	43.64	-23.82	34.35	33.11	54.00	10.36	V
8318.900	35.49	-32.19	35.74	31.94	54.00	18.51	V
10402.300	36.57	-32.09	37.69	30.98	54.00	17.43	H
15594.300	39.94	-26.53	40.21	26.25	54.00	14.06	V
17736.000	37.07	-25.68	41.55	21.19	54.00	16.93	V

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5355.400	43.63	-23.90	34.34	33.18	54.00	10.37	V
5367.600	43.59	-23.84	34.35	33.09	54.00	10.41	V
8383.800	37.68	-32.19	35.72	34.15	54.00	16.32	V
10480.400	37.42	-32.14	37.78	31.78	54.00	16.58	V
15721.900	36.73	-26.34	40.37	22.70	54.00	17.27	V
17760.200	36.56	-25.69	41.55	20.70	54.00	17.44	V

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.200	43.86	-23.92	34.34	33.44	54.00	10.14	V
5352.800	43.80	-23.91	34.34	33.36	54.00	10.20	V
8415.857	46.55	-32.20	35.72	43.03	54.00	7.45	V
10520.000	37.96	-31.93	37.81	32.08	54.00	16.04	H
15780.357	46.85	-26.31	40.44	32.72	54.00	7.15	V
17980.385	38.88	-25.84	41.50	23.21	54.00	15.12	H

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5364.400	44.11	-23.86	34.35	33.62	54.00	9.89	V
5366.600	44.13	-23.85	34.35	33.63	54.00	9.87	V
8447.679	46.96	-32.24	35.71	43.49	54.00	7.04	V
10558.500	38.30	-31.73	37.82	32.20	54.00	15.70	H
15841.250	47.66	-26.30	40.51	33.45	54.00	6.34	H
17989.786	39.06	-25.85	41.50	23.40	54.00	14.94	H

## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	46.03	-23.92	34.34	35.61	54.00	7.97	V
5351.800	45.84	-23.92	34.34	35.42	54.00	8.16	V
8511.714	46.81	-32.37	35.71	43.46	54.00	7.19	H
10639.036	37.29	-32.05	37.86	31.48	54.00	16.71	H
15958.321	46.79	-26.24	40.65	32.38	54.00	7.21	H
17989.000	39.08	-25.85	41.50	23.42	54.00	14.92	V

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5455.400	43.52	-24.15	34.38	33.29	54.00	10.48	V
5458.200	43.52	-24.14	34.38	33.27	54.00	10.48	V
8799.500	42.76	-32.19	36.06	38.88	54.00	11.24	V
10999.000	38.18	-31.52	38.00	31.70	54.00	15.82	V
16496.000	42.19	-25.91	41.49	26.60	54.00	11.81	V
17946.500	38.42	-25.81	41.51	22.72	54.00	15.58	H

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5419.000	43.20	-24.22	34.37	33.04	54.00	10.80	V
5446.000	42.93	-24.20	34.38	32.75	54.00	11.07	V
8927.500	33.91	-32.36	36.22	30.05	54.00	20.09	H
11162.000	40.00	-31.85	38.07	33.78	54.00	14.00	H
16741.000	43.85	-25.51	41.84	27.52	54.00	10.15	V
17937.000	38.32	-25.80	41.51	22.61	54.00	15.68	H



**Channel 140**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5442.800	42.71	-24.22	34.38	32.55	48.30	5.59	V
5432.000	42.71	-24.27	34.37	32.61	48.30	5.59	V
11398.000	38.37	-31.79	38.16	31.99	48.30	9.93	V
17100.000	42.99	-25.77	42.08	26.68	48.30	5.31	V
17775.000	38.26	-25.70	41.54	22.42	48.30	10.04	V
17905.000	38.25	-25.78	41.52	22.51	48.30	10.05	V

**Channel 144**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5359.400	43.26	-23.88	34.35	32.79	54.00	10.74	V
5373.200	43.35	-23.82	34.35	32.81	54.00	10.65	V
9152.000	33.10	-32.20	36.36	28.93	54.00	20.90	H
11440.000	37.84	-31.56	38.18	31.22	54.00	16.16	V
17157.500	41.24	-25.80	42.01	25.03	54.00	12.76	V
17987.000	39.04	-25.84	41.50	23.38	54.00	14.96	V

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**Channel 38**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5132.400	43.64	-24.14	34.25	33.52	54.00	10.36	V
5137.800	44.12	-24.03	34.26	33.89	54.00	9.88	V
8303.500	35.91	-32.18	35.74	32.35	54.00	18.09	V
10386.900	34.11	-32.07	37.67	28.51	54.00	19.89	H
15566.800	38.89	-26.56	40.18	25.26	54.00	15.11	V
17783.300	36.76	-25.70	41.54	20.92	54.00	17.24	H

## Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5355.800	43.55	-23.90	34.34	33.11	54.00	10.45	V
5352.200	43.62	-23.91	34.34	33.19	54.00	10.38	V
8367.730	45.49	-32.19	35.73	41.96	54.00	8.51	H
10461.700	35.10	-32.20	37.76	29.54	54.00	18.90	H
15687.800	41.47	-26.39	40.33	27.53	54.00	12.53	V
17740.400	36.95	-25.68	41.55	21.07	54.00	17.05	H

## Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.200	43.35	-23.88	34.26	32.97	54.00	10.65	V
5371.800	43.40	-23.82	34.35	32.87	54.00	10.60	V
8431.500	46.09	-32.22	35.71	42.59	54.00	7.91	H
10540.000	36.56	-31.82	37.82	30.57	54.00	17.44	H
15811.000	44.82	-26.30	40.48	30.65	54.00	9.18	H
17969.000	38.91	-25.83	41.51	23.23	54.00	15.09	H

## Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5374.600	43.52	-23.82	34.35	32.98	54.00	10.48	V
5380.600	43.26	-23.87	34.35	32.78	54.00	10.74	V
8496.000	47.04	-32.31	35.70	43.65	54.00	6.96	V
10620.000	35.85	-31.93	37.85	29.94	54.00	18.15	V
15930.000	44.95	-26.26	40.62	30.60	54.00	9.05	H
17968.000	38.91	-25.83	41.51	23.23	54.00	15.09	V

## Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5414.800	43.17	-24.18	34.37	32.98	54.00	10.83	V
5438.400	43.10	-24.24	34.38	32.97	54.00	10.90	V
8815.500	37.54	-32.19	36.08	33.64	54.00	16.46	H
11025.000	36.77	-31.62	38.01	30.38	54.00	17.23	H
16522.500	40.54	-25.87	41.53	24.87	54.00	13.46	H
17929.500	38.28	-25.80	41.51	22.57	54.00	15.72	H

## Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5440.600	42.84	-24.23	34.38	32.70	54.00	11.16	V
5448.200	42.84	-24.19	34.38	32.65	54.00	11.16	V
8943.500	34.14	-32.30	36.23	30.21	54.00	19.86	H
11180.000	38.00	-31.79	38.07	31.72	54.00	16.00	V
16768.500	42.49	-25.48	41.88	26.09	54.00	11.51	H
17931.500	38.35	-25.80	41.51	22.64	54.00	15.65	H

## Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5455.600	42.73	-24.15	34.38	32.50	48.30	5.57	V
5458.400	42.75	-24.14	34.38	32.50	48.30	5.55	V
11336.000	36.98	-32.13	38.14	30.97	48.30	11.32	V
17006.000	40.71	-25.66	42.19	24.18	48.30	7.59	H
17840.500	38.01	-25.74	41.53	22.22	48.30	10.29	H
17966.000	38.73	-25.83	41.51	23.05	48.30	9.57	H

## Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5371.200	43.25	-23.83	34.35	32.73	54.00	10.75	V
5377.400	43.18	-23.84	34.35	32.67	54.00	10.82	V
9136.000	32.87	-32.29	36.36	28.80	54.00	21.13	V
11419.500	36.28	-31.67	38.17	29.78	54.00	17.72	V
17130.500	40.06	-25.78	42.04	23.80	54.00	13.94	H
17993.000	39.63	-25.85	41.50	23.98	54.00	14.37	H

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## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5141.800	44.21	-23.95	34.26	33.90	54.00	9.79	V
5145.600	44.61	-23.87	34.26	34.22	54.00	9.39	V
8288.100	35.05	-32.17	35.74	31.48	54.00	18.95	V
10357.200	35.47	-32.02	37.63	29.85	54.00	18.53	H
15540.400	41.66	-26.59	40.15	28.10	54.00	12.34	H
17772.300	36.89	-25.70	41.55	21.04	54.00	17.11	V

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.400	43.35	-23.84	34.26	32.92	54.00	10.65	V
5358.000	43.10	-23.89	34.35	32.65	54.00	10.90	V
8318.900	35.11	-32.19	35.74	31.56	54.00	18.89	H
10396.800	34.49	-32.08	37.68	28.89	54.00	19.51	H
15602.000	39.66	-26.51	40.22	25.95	54.00	14.34	H
17751.400	36.98	-25.69	41.55	21.12	54.00	17.02	H

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5354.400	43.74	-23.90	34.34	33.30	54.00	10.26	V
5357.000	43.62	-23.89	34.34	33.17	54.00	10.38	V
8383.800	37.80	-32.19	35.72	34.27	54.00	16.20	H
10483.700	36.51	-32.12	37.78	30.85	54.00	17.49	V
15717.500	40.13	-26.35	40.36	26.12	54.00	13.87	H
17808.600	36.95	-25.72	41.54	21.13	54.00	17.05	V

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5352.800	43.79	-23.91	34.34	33.36	54.00	10.21	V
5350.400	43.93	-23.92	34.34	33.51	54.00	10.07	V
8416.000	46.54	-32.20	35.72	43.02	54.00	7.46	H
10521.500	37.94	-31.92	37.81	32.05	54.00	16.06	V
15781.500	46.80	-26.31	40.44	32.67	54.00	7.20	H
17963.000	38.73	-25.82	41.51	23.05	54.00	15.27	V

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5357.400	44.03	-23.89	34.34	33.57	54.00	9.97	V
5362.600	44.05	-23.87	34.35	33.57	54.00	9.95	V
8448.000	47.18	-32.24	35.71	43.71	54.00	6.82	H
10560.000	38.05	-31.72	37.82	31.94	54.00	15.95	V
15842.000	46.85	-26.30	40.51	32.64	54.00	7.15	V
17991.500	39.03	-25.85	41.50	23.38	54.00	14.97	H

## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.200	46.12	-23.92	34.34	35.70	54.00	7.88	V
5351.000	45.95	-23.92	34.34	35.53	54.00	8.05	V
8512.000	46.86	-32.37	35.71	43.52	54.00	7.14	V
10640.000	37.09	-32.05	37.86	31.29	54.00	16.91	H
15958.000	46.17	-26.24	40.65	31.75	54.00	7.83	H
17986.000	39.01	-25.84	41.50	23.35	54.00	14.99	V

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5452.400	43.16	-24.17	34.38	32.94	54.00	10.84	V
5455.600	43.27	-24.15	34.38	33.04	54.00	10.73	V
8799.500	40.83	-32.19	36.06	36.96	54.00	13.17	H
10999.000	38.14	-31.52	38.00	31.66	54.00	15.86	H
16498.500	42.38	-25.90	41.50	26.79	54.00	11.62	H
17821.000	38.28	-25.73	41.54	22.47	54.00	15.72	H

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5429.400	42.82	-24.29	34.37	32.74	54.00	11.18	V
5460.800	43.29	-24.12	34.38	33.03	54.00	10.71	V
8928.000	34.29	-32.36	36.22	30.43	54.00	19.71	H
11158.500	40.29	-31.86	38.06	34.08	54.00	13.72	V
16740.500	44.26	-25.51	41.84	27.93	54.00	9.74	H
17868.000	38.02	-25.76	41.53	22.25	54.00	15.98	H

**Channel 140**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5406.400	42.91	-24.10	34.36	32.65	48.30	5.39	V
5420.200	42.70	-24.23	34.37	32.56	48.30	5.60	V
11400.500	38.48	-31.77	38.16	32.09	48.30	9.82	V
17098.000	41.90	-25.77	42.08	25.59	48.30	6.40	H
17780.000	38.04	-25.70	41.54	22.20	48.30	10.26	H
17887.500	38.24	-25.77	41.52	22.49	48.30	10.06	H

**Channel 144**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5352.800	43.26	-23.91	34.34	32.83	54.00	10.74	V
5371.200	43.38	-23.83	34.35	32.85	54.00	10.62	V
9152.000	33.06	-32.20	36.36	28.90	54.00	20.94	V
11439.000	37.73	-31.56	38.18	31.11	54.00	16.27	V
17161.500	41.28	-25.80	42.00	25.07	54.00	12.72	H
17989.500	39.04	-25.85	41.50	23.38	54.00	14.96	H

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**Channel 38**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5141.400	43.56	-23.96	34.26	33.26	54.00	10.44	V
5146.000	43.67	-23.87	34.26	33.28	54.00	10.33	V
8303.500	44.29	-32.18	35.74	40.73	54.00	9.71	H
10390.200	34.22	-32.07	37.67	28.62	54.00	19.78	H
15570.100	39.58	-26.55	40.19	25.95	54.00	14.42	H
17734.900	37.20	-25.68	41.55	21.32	54.00	16.80	H

## Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5356.200	43.21	-23.90	34.34	32.76	54.00	10.79	V
5366.000	43.39	-23.85	34.35	32.89	54.00	10.61	V
8303.500	44.15	-32.18	35.74	40.59	54.00	9.85	H
10389.100	34.24	-32.07	37.67	28.64	54.00	19.76	H
15569.000	38.76	-26.56	40.18	25.13	54.00	15.24	V
17783.300	36.53	-25.70	41.54	20.69	54.00	17.47	V

## Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	44.27	-23.92	34.34	33.85	54.00	9.73	V
5351.400	44.14	-23.92	34.34	33.71	54.00	9.86	V
8432.000	46.21	-32.22	35.71	42.71	54.00	7.79	H
10540.000	36.41	-31.82	37.82	30.42	54.00	17.59	H
15807.500	44.37	-26.30	40.47	30.20	54.00	9.63	V
17992.000	39.06	-25.85	41.50	23.41	54.00	14.94	H

## Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.200	49.31	-23.92	34.34	38.89	54.00	4.69	V
5350.800	49.13	-23.92	34.34	38.71	54.00	4.87	V
8496.000	47.02	-32.31	35.70	43.63	54.00	6.98	H
10620.000	35.86	-31.93	37.85	29.95	54.00	18.14	H
15930.000	44.95	-26.26	40.62	30.59	54.00	9.05	H
17977.000	38.85	-25.84	41.50	23.19	54.00	15.15	V



## Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5455.200	43.66	-24.15	34.38	33.44	54.00	10.34	V
5457.000	43.74	-24.14	34.38	33.51	54.00	10.26	V
8815.500	43.69	-32.19	36.08	39.79	54.00	10.31	H
11020.500	37.02	-31.60	38.01	30.61	54.00	16.98	V
16533.000	40.95	-25.85	41.55	25.26	54.00	13.05	H
17573.000	38.36	-25.68	41.59	22.45	54.00	15.64	V

## Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5372.600	43.43	-23.82	34.35	32.90	54.00	10.57	V
5418.800	42.95	-24.21	34.37	32.80	54.00	11.05	V
8943.500	34.94	-32.30	36.23	31.01	54.00	19.06	V
1118.200	37.78	-28.75	27.19	39.35	54.00	16.22	V
16771.500	42.48	-25.48	41.88	26.08	54.00	11.52	H
17932.000	38.54	-25.80	41.51	22.83	54.00	15.46	H

## Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5392.600	42.92	-23.98	34.36	32.54	48.30	5.38	V
5430.600	42.62	-24.28	34.37	32.53	48.30	5.68	V
11335.000	36.94	-32.13	38.13	30.94	48.30	11.36	V
17012.500	40.85	-25.67	42.18	24.33	48.30	7.45	V
17722.500	37.99	-25.68	41.56	22.11	48.30	10.31	H
17918.500	38.35	-25.79	41.52	22.63	48.30	9.95	H

## Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5360.000	43.18	-23.88	34.35	32.71	54.00	10.82	V
5374.800	43.24	-23.82	34.35	32.71	54.00	10.76	V
9136.000	32.75	-32.29	36.36	28.69	54.00	21.25	V
11422.000	36.03	-31.66	38.17	29.52	54.00	17.97	V
17119.500	39.95	-25.78	42.06	23.67	54.00	14.05	H
17994.000	39.00	-25.85	41.50	23.35	54.00	15.00	H

**802.11ac-HT80**

## Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.200	48.43	-23.80	34.26	37.97	54.00	5.57	V
5149.800	48.59	-23.79	34.26	38.12	54.00	5.41	V
8336.000	45.71	-32.19	35.73	42.17	54.00	8.29	V
11910.500	35.06	-30.95	38.61	27.40	54.00	18.94	H
15647.500	39.07	-26.45	40.28	25.24	54.00	14.93	H
17980.000	38.97	-25.84	41.50	23.30	54.00	15.03	H

## Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	48.79	-23.92	34.34	38.37	54.00	5.21	V
5350.600	48.79	-23.92	34.34	38.37	54.00	5.21	V
8463.500	47.83	-32.26	35.71	44.38	54.00	6.17	V
11918.500	34.97	-30.96	38.62	27.31	54.00	19.03	H
15871.000	41.77	-26.30	40.55	27.52	54.00	12.23	V
17981.000	38.92	-25.84	41.50	23.26	54.00	15.08	V

## Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5454.200	43.68	-24.16	34.38	33.46	54.00	10.32	V
5457.800	43.97	-24.14	34.38	33.73	54.00	10.03	V
8847.500	39.95	-32.20	36.12	36.03	54.00	14.05	V
11060.000	33.52	-31.78	38.02	27.27	54.00	20.48	V
16054.500	37.45	-26.15	40.79	22.81	54.00	16.55	V
17838.500	38.13	-25.74	41.53	22.33	54.00	15.87	V

## Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5431.600	42.79	-24.28	34.37	32.69	54.00	11.21	V
5454.200	43.12	-24.16	34.38	32.89	54.00	10.88	V
8975.500	34.13	-32.18	36.27	30.05	54.00	19.87	H
11220.000	33.26	-31.65	38.09	26.82	54.00	20.74	V
15855.000	37.78	-26.30	40.53	23.55	54.00	16.22	H
17936.500	38.35	-25.80	41.51	22.64	54.00	15.65	V

## Channel 138

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5431.600	42.79	-24.28	34.37	32.69	54.00	11.21	V
5454.200	43.12	-24.16	34.38	32.89	54.00	10.88	V
9104.000	31.97	-32.46	36.34	28.09	54.00	22.03	V
11380.000	35.03	-31.89	38.15	28.77	54.00	18.97	H
15946.000	38.02	-26.25	40.64	23.63	54.00	15.98	H
17967.500	38.78	-25.83	41.51	23.11	54.00	15.22	V

**PEAK Results:**
**802.11a**

## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.030	67.96	-23.81	34.26	57.50	74.00	6.04	V
5149.782	68.89	-23.79	34.26	58.42	74.00	5.11	V
8288.100	48.05	-32.17	35.74	44.48	74.00	25.95	V
10363.250	49.79	-32.03	37.64	44.18	68.30	18.51	V
15543.700	56.28	-26.58	40.15	42.71	68.30	12.02	V
17216.250	49.25	-25.82	41.94	33.14	68.30	19.05	H

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5156.400	59.96	-23.66	34.26	49.36	68.30	8.34	H
5247.800	59.41	-24.43	34.30	49.54	68.30	8.89	V
8319.450	48.53	-32.19	35.74	44.98	74.00	25.47	H
10397.900	49.77	-32.09	37.68	44.18	68.30	18.53	V
15593.750	55.18	-26.53	40.21	41.49	74.00	18.82	V
17208.000	49.51	-25.82	41.95	33.38	68.30	18.79	V

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5358.600	56.19	-23.88	34.35	45.73	74.00	17.81	V
5370.400	56.79	-23.83	34.35	46.27	74.00	17.21	H
8383.250	47.83	-32.19	35.72	44.30	74.00	26.17	V
10480.950	50.51	-32.13	37.78	44.87	68.30	17.79	H
15716.950	59.71	-26.35	40.36	45.69	74.00	14.29	H
17593.000	49.70	-25.68	41.58	33.80	68.30	18.60	H

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5220.400	62.80	-24.11	34.29	52.62	68.30	5.50	V
5299.800	62.10	-24.30	34.32	52.08	68.30	6.20	H
8416.250	50.52	-32.20	35.72	47.00	74.00	23.48	V
10520.000	51.04	-31.93	37.81	45.16	68.30	17.26	H
15781.850	62.90	-26.31	40.44	48.76	74.00	11.10	V
16617.850	53.14	-25.70	41.67	37.18	68.30	15.16	V

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5237.000	60.22	-24.31	34.30	50.23	68.30	8.08	H
5320.400	61.23	-24.07	34.33	50.97	68.30	7.07	H
8447.600	50.37	-32.24	35.71	46.90	74.00	23.63	V
10561.250	50.70	-31.71	37.83	44.59	68.30	17.60	V
15840.150	63.48	-26.30	40.51	49.27	74.00	10.52	H
16694.300	52.67	-25.57	41.77	36.47	68.30	15.63	H

## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.150	70.64	-23.92	34.34	60.23	74.00	3.36	V
5351.325	71.00	-23.92	34.34	60.58	74.00	3.00	H
8511.950	50.44	-32.37	35.71	47.10	68.30	17.86	H
10632.750	51.45	-32.01	37.85	45.60	74.00	22.55	V
15961.150	62.74	-26.23	40.65	48.32	74.00	11.26	V
17546.800	53.36	-25.70	41.59	37.47	68.30	14.94	V

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5469.634	66.19	-24.08	34.39	55.88	68.30	2.11	H
5469.887	64.73	-24.08	34.39	54.42	68.30	3.57	H
8799.500	47.04	-32.19	36.06	43.16	68.30	21.26	V
10999.500	51.15	-31.52	38.00	44.67	74.00	22.85	V
16502.000	56.44	-25.90	41.50	40.83	68.30	11.86	H
17443.500	51.29	-25.83	41.67	35.45	68.30	17.01	H

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5495.000	56.32	-23.83	34.40	45.75	68.30	11.98	V
5674.200	57.04	-23.70	34.72	46.01	68.30	11.26	V
8929.000	46.32	-32.35	36.22	42.46	68.30	21.98	V
11158.500	53.83	-31.86	38.06	47.63	74.00	20.17	V
16731.500	59.71	-25.52	41.83	43.41	68.30	8.59	V
17545.000	53.54	-25.70	41.59	37.65	68.30	14.76	V

## Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.025	65.41	-23.45	34.81	54.05	68.30	2.89	H
5725.200	65.34	-23.45	34.82	53.97	68.30	2.96	V
11397.500	51.41	-31.79	38.16	45.04	74.00	22.59	H
17095.500	56.02	-25.77	42.08	39.70	68.30	12.28	V
17468.500	51.48	-25.80	41.64	35.63	68.30	16.82	V
17811.000	52.02	-25.72	41.54	36.20	68.30	16.28	V

## Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5677.200	63.09	-23.68	34.73	52.05	68.30	5.21	H
5761.800	60.77	-23.24	34.88	49.13	68.30	7.53	V
11438.000	51.10	-31.57	38.18	44.50	74.00	22.90	V
17156.500	55.91	-25.80	42.01	39.70	68.30	12.39	H
17349.000	51.34	-25.88	41.78	35.44	68.30	16.96	H
17548.500	52.43	-25.69	41.59	36.53	68.30	15.87	V

**802.11n-HT20**

## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.295	65.19	-23.82	34.26	54.75	74.00	8.81	V
5149.852	65.47	-23.79	34.26	55.00	74.00	8.53	V
8287.550	48.48	-32.17	35.74	44.91	74.00	25.52	H
10358.850	47.76	-32.02	37.63	42.14	68.30	20.54	V
15534.350	54.62	-26.59	40.14	41.06	74.00	19.38	H
17215.150	50.38	-25.82	41.94	34.27	68.30	17.91	V

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5156.400	59.96	-23.66	34.26	49.36	68.30	8.34	H
5254.000	58.15	-24.50	34.30	48.35	68.30	10.15	V
8320.000	48.76	-32.19	35.74	45.21	74.00	25.24	V
10401.750	49.19	-32.09	37.68	43.60	68.30	19.11	V
15608.050	54.58	-26.51	40.23	40.86	74.00	19.42	H
17597.950	50.98	-25.68	41.58	35.07	68.30	17.32	H

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5296.800	58.51	-24.34	34.32	48.53	74.00	15.49	V
5311.200	56.61	-24.17	34.33	46.45	74.00	17.39	V
8383.800	48.97	-32.19	35.72	45.44	74.00	25.03	H
10476.000	50.17	-32.16	37.77	44.56	68.30	18.13	V
15725.200	59.51	-26.34	40.37	45.47	74.00	14.49	H
17633.700	49.27	-25.68	41.57	33.37	68.30	19.03	V

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5218.600	59.91	-24.09	34.29	49.71	68.30	8.39	V
5306.800	58.88	-24.22	34.32	48.78	68.30	9.42	V
8415.700	50.05	-32.20	35.72	46.53	74.00	23.95	V
10527.150	50.85	-31.89	37.81	44.93	68.30	17.45	V
15780.750	63.17	-26.31	40.44	49.04	74.00	10.83	V
16799.900	52.86	-25.45	41.92	36.39	68.30	15.44	H

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5235.000	59.84	-24.28	34.30	49.83	68.30	8.46	V
5330.000	61.30	-24.02	34.33	50.99	68.30	6.99	V
8447.600	50.28	-32.24	35.71	46.81	74.00	23.72	H
10565.650	52.34	-31.69	37.83	46.20	68.30	15.96	H
15830.800	61.99	-26.30	40.50	47.80	74.00	12.01	H
16875.800	53.23	-25.37	42.03	36.58	68.30	15.07	H



## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.312	69.47	-23.92	34.34	59.05	74.00	4.53	V
5350.744	70.56	-23.92	34.34	60.14	74.00	3.44	H
8511.950	49.96	-32.37	35.71	46.62	68.30	18.34	H
10641.000	49.52	-32.06	37.86	43.73	74.00	24.48	V
15960.050	61.97	-26.23	40.65	47.55	74.00	12.03	V
16871.400	53.68	-25.38	42.02	37.04	68.30	14.62	H

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5468.350	64.43	-24.09	34.39	54.13	68.30	3.87	V
5468.790	65.81	-24.08	34.39	55.51	68.30	2.49	V
8799.500	46.56	-32.19	36.06	42.69	68.30	21.74	H
11000.000	51.46	-31.52	38.00	44.98	74.00	22.54	H
16500.500	56.17	-25.90	41.50	40.57	68.30	12.13	V
17355.000	52.14	-25.89	41.77	36.25	68.30	16.16	H

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5506.000	57.44	-23.67	34.41	46.70	68.30	10.86	V
5648.800	57.91	-23.81	34.68	47.05	68.30	10.39	H
11154.000	51.98	-31.87	38.06	45.79	74.00	22.02	V
16737.500	58.99	-25.52	41.84	42.67	68.30	9.31	V
17105.000	52.33	-25.77	42.07	36.03	68.30	15.97	V
17516.000	51.92	-25.73	41.60	36.06	68.30	16.38	V

## Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.113	65.26	-23.45	34.81	53.89	68.30	3.04	V
5725.562	66.48	-23.44	34.82	55.11	68.30	1.82	H
11398.500	51.91	-31.78	38.16	45.54	74.00	22.09	V
17103.000	55.49	-25.77	42.07	39.19	68.30	12.81	H
17357.000	51.44	-25.89	41.77	35.56	68.30	16.86	H
17527.000	52.40	-25.72	41.59	36.53	68.30	15.90	H

## Channel 144

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5680.400	62.14	-23.67	34.73	51.07	68.30	6.16	H
5756.600	59.65	-23.27	34.87	48.05	68.30	8.65	V
11439.500	49.95	-31.56	38.18	43.33	74.00	24.05	V
17166.500	55.24	-25.80	42.00	39.04	68.30	13.06	H
17378.000	51.80	-25.90	41.74	35.95	68.30	16.50	V
17502.000	52.26	-25.75	41.60	36.41	68.30	16.04	H

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## Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.047	71.86	-23.81	34.26	61.40	74.00	2.14	H
5149.922	71.00	-23.79	34.26	60.53	74.00	3.00	H
8304.050	48.08	-32.18	35.74	44.52	74.00	25.92	H
10385.250	46.50	-32.06	37.66	40.90	68.30	21.80	V
15566.250	51.92	-26.56	40.18	38.30	74.00	22.08	H
17547.350	50.40	-25.69	41.59	34.50	68.30	17.90	V

## Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5357.200	57.15	-23.89	34.34	46.69	74.00	16.85	V
5373.400	56.51	-23.81	34.35	45.97	74.00	17.49	H
8367.850	49.28	-32.19	35.73	45.74	74.00	24.72	V
10459.500	48.66	-32.19	37.75	43.10	68.30	19.64	H
15685.600	55.96	-26.39	40.32	42.03	74.00	18.04	V
17245.950	50.09	-25.84	41.90	34.03	68.30	18.21	H

## Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5207.200	60.09	-23.97	34.29	49.78	68.30	8.21	H
5338.400	64.09	-23.98	34.34	53.73	68.30	4.21	V
8432.000	49.82	-32.22	35.71	46.33	74.00	24.18	V
10543.000	48.45	-31.81	37.82	42.44	68.30	19.85	V
15795.500	58.86	-26.31	40.46	44.71	74.00	15.14	H
16760.500	52.90	-25.49	41.87	36.52	68.30	15.40	H

## Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.231	68.93	-23.92	34.34	58.51	74.00	5.07	H
5350.704	69.54	-23.92	34.34	59.12	74.00	4.46	V
8495.500	50.39	-32.31	35.70	47.00	74.00	23.61	V
10625.000	48.44	-31.96	37.85	42.55	74.00	25.56	V
15932.000	59.23	-26.26	40.62	44.87	74.00	14.77	H
16770.500	53.21	-25.48	41.88	36.81	68.30	15.09	V

## Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5465.396	65.49	-24.10	34.39	55.20	68.30	2.81	H
5468.218	65.41	-24.09	34.39	55.11	68.30	2.89	H
8815.500	47.43	-32.19	36.08	43.53	68.30	20.87	V
11028.000	46.31	-31.63	38.01	39.94	74.00	27.69	V
16526.000	53.64	-25.86	41.54	37.96	68.30	14.66	V
17323.000	53.41	-25.87	41.81	37.47	68.30	14.89	H

## Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5501.600	56.54	-23.74	34.40	45.88	68.30	11.76	H
5730.000	56.59	-23.42	34.82	45.18	68.30	11.71	H
11176.000	49.40	-31.80	38.07	43.13	74.00	24.60	H
16786.500	55.51	-25.47	41.90	39.07	68.30	12.79	V
17222.500	51.26	-25.83	41.93	35.16	68.30	17.04	H
17758.000	51.63	-25.69	41.55	35.77	68.30	16.67	V

## Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.162	64.16	-23.45	34.82	52.79	68.30	4.14	H
5782.802	66.02	-23.07	34.92	54.17	68.30	2.28	V
11347.500	49.28	-32.06	38.14	43.20	74.00	24.72	V
17000.000	53.23	-25.64	42.20	36.67	68.30	15.07	H
17278.000	50.83	-25.85	41.86	34.82	68.30	17.47	H
17459.500	53.08	-25.81	41.65	37.24	68.30	15.22	V

## Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5638.200	60.46	-23.72	34.66	49.53	68.30	7.84	V
5785.200	60.09	-23.05	34.92	48.22	68.30	8.21	H
11417.500	48.72	-31.68	38.17	42.23	74.00	25.28	H
17126.500	50.90	-25.78	42.05	34.63	68.30	17.40	V
17286.500	52.06	-25.86	41.85	36.07	68.30	16.23	H
17504.000	52.27	-25.75	41.60	36.42	68.30	16.03	V

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## Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.695	66.43	-23.79	34.26	55.96	74.00	7.57	V
5149.992	66.45	-23.79	34.26	55.97	74.00	7.55	V
8287.550	48.22	-32.17	35.74	44.65	74.00	25.78	H
10314.300	46.75	-31.95	37.58	41.11	68.30	21.55	H
15540.950	53.94	-26.58	40.15	40.38	74.00	20.06	V
17293.250	50.22	-25.86	41.85	34.23	68.30	18.08	H

## Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5161.200	58.22	-23.56	34.27	47.52	68.30	10.08	H
5252.600	56.87	-24.49	34.30	47.06	68.30	11.43	H
8320.000	48.84	-32.19	35.74	45.29	74.00	25.16	H
10400.100	48.81	-32.09	37.68	43.22	68.30	19.49	V
15592.650	54.95	-26.53	40.21	41.27	74.00	19.05	V
17316.350	50.19	-25.87	41.82	34.24	68.30	18.11	V

## Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5351.800	56.50	-23.92	34.34	46.07	74.00	17.50	H
5378.600	58.09	-23.85	34.35	47.58	74.00	15.91	V
8383.800	49.28	-32.19	35.72	45.74	74.00	24.72	H
10482.050	49.33	-32.13	37.78	43.68	68.30	18.97	V
15719.700	57.83	-26.34	40.37	43.81	74.00	16.17	H
17103.500	50.44	-25.77	42.07	34.13	68.30	17.86	V

## Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5221.200	58.96	-24.12	34.29	48.79	68.30	9.34	H
5307.000	60.34	-24.22	34.33	50.24	68.30	7.96	H
8416.000	50.05	-32.20	35.72	46.53	74.00	23.95	H
10515.500	50.16	-31.95	37.81	44.30	68.30	18.14	H
15778.000	61.44	-26.31	40.44	47.31	74.00	12.56	H
16873.000	52.66	-25.37	42.02	36.01	68.30	15.64	V

## Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5238.200	63.17	-24.32	34.30	53.20	68.30	5.13	V
5320.600	62.15	-24.07	34.33	51.88	68.30	6.15	V
8448.000	50.50	-32.24	35.71	47.03	74.00	23.50	H
10560.000	51.19	-31.72	37.82	45.08	68.30	17.11	V
15840.500	64.49	-26.30	40.51	50.28	74.00	9.51	H
16753.000	52.91	-25.50	41.86	36.55	68.30	15.39	H

## Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.434	69.55	-23.92	34.34	59.13	74.00	4.45	H
5350.920	69.04	-23.92	34.34	58.61	74.00	4.96	H
8512.000	49.73	-32.37	35.71	46.39	68.30	18.56	H
10638.000	49.94	-32.04	37.86	44.12	74.00	24.06	H
15955.000	60.63	-26.24	40.65	46.22	74.00	13.37	H
16898.500	53.05	-25.42	42.06	36.41	68.30	15.25	V

## Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5468.218	64.65	-24.09	34.39	54.35	68.30	3.65	V
5469.128	63.23	-24.08	34.39	52.92	68.30	5.07	V
8799.000	46.26	-32.19	36.06	42.39	68.30	22.04	H
10997.000	50.96	-31.54	38.00	44.50	74.00	23.04	H
16499.500	56.08	-25.90	41.50	40.48	68.30	12.22	V
17521.500	51.62	-25.73	41.60	35.75	68.30	16.68	V

## Channel 116

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5511.400	56.65	-23.60	34.42	45.83	68.30	11.65	V
5699.600	56.70	-23.58	34.77	45.52	68.30	11.60	H
11156.000	52.73	-31.87	38.06	46.53	74.00	21.27	V
16742.000	58.70	-25.51	41.84	42.37	68.30	9.60	H
17174.500	51.28	-25.80	41.99	35.10	68.30	17.02	H
17479.000	50.83	-25.78	41.62	34.99	68.30	17.47	V

**Channel 140**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.362	65.50	-23.45	34.82	54.13	68.30	2.80	V
5726.762	64.60	-23.44	34.82	53.22	68.30	3.70	H
11398.000	51.54	-31.79	38.16	45.17	74.00	22.46	H
17098.000	54.42	-25.77	42.08	38.11	68.30	13.88	H
17243.500	52.95	-25.84	41.91	36.88	68.30	15.35	H
17465.000	51.51	-25.80	41.64	35.67	68.30	16.79	H

**Channel 144**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5677.400	59.18	-23.68	34.73	48.14	68.30	9.12	V
5769.200	59.58	-23.18	34.89	47.86	68.30	8.72	H
11439.500	51.09	-31.56	38.18	44.47	74.00	22.91	H
17166.000	56.09	-25.80	42.00	39.89	68.30	12.21	V
17308.000	52.61	-25.87	41.83	36.64	68.30	15.69	H
17619.000	52.42	-25.68	41.58	36.52	68.30	15.88	H

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**Channel 38**

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.647	69.34	-23.83	34.26	58.92	74.00	4.66	V
5149.153	69.75	-23.80	34.26	59.29	74.00	4.25	V
8303.500	48.98	-32.18	35.74	45.42	74.00	25.02	H
10383.600	47.53	-32.06	37.66	41.93	68.30	20.77	H
15566.800	51.68	-26.56	40.18	38.06	74.00	22.32	V
17290.500	49.92	-25.86	41.85	33.93	68.30	18.38	V



## Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5356.400	56.92	-23.89	34.34	46.47	74.00	17.08	H
5361.200	56.85	-23.87	34.35	46.38	74.00	17.15	H
8303.500	48.04	-32.18	35.74	44.48	74.00	25.96	H
10379.750	47.55	-32.06	37.66	41.95	68.30	20.75	H
15581.650	53.20	-26.54	40.20	39.55	74.00	20.80	H
17173.900	49.68	-25.80	41.99	33.50	68.30	18.62	V

## Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5218.600	63.87	-24.09	34.29	53.67	68.30	4.43	H
5329.400	64.35	-24.02	34.33	54.04	68.30	3.95	H
8431.500	50.23	-32.22	35.71	46.73	74.00	23.77	H
10540.000	49.26	-31.82	37.82	43.26	68.30	19.04	V
15808.000	57.81	-26.30	40.47	43.64	74.00	16.19	H
16875.800	53.23	-25.37	42.03	36.58	68.30	15.07	H

## Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.204	70.80	-23.92	34.34	60.38	74.00	3.20	V
5358.628	68.99	-23.88	34.35	58.53	74.00	5.01	V
8495.500	50.42	-32.31	35.70	47.03	74.00	23.58	H
10610.500	48.39	-31.88	37.85	42.42	74.00	25.61	H
15921.500	58.60	-26.27	40.61	44.26	74.00	15.40	V
17166.500	53.27	-25.80	42.00	37.07	68.30	15.03	V

## Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5468.575	65.90	-24.08	34.39	55.60	68.30	2.40	V
5469.268	66.91	-24.08	34.39	56.60	68.30	1.39	V
8816.000	46.77	-32.19	36.08	42.87	68.30	21.53	H
11021.500	50.05	-31.60	38.01	43.65	74.00	23.95	H
16535.000	54.42	-25.85	41.55	38.72	68.30	13.88	H
17395.500	51.50	-25.89	41.72	35.66	68.30	16.80	V

## Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5498.600	56.69	-23.78	34.40	46.07	68.30	11.61	V
5673.600	58.79	-23.70	34.72	47.77	68.30	9.51	H
8944.000	45.35	-32.30	36.23	41.42	68.30	22.95	H
11175.000	50.51	-31.80	38.07	44.24	74.00	23.49	H
16776.500	55.26	-25.48	41.89	38.84	68.30	13.04	H
17175.500	51.59	-25.81	41.99	35.40	68.30	16.71	V

## Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5725.075	65.26	-23.45	34.81	53.89	68.30	3.04	H
5726.075	64.82	-23.44	34.82	53.44	68.30	3.48	V
11334.500	50.64	-32.13	38.13	44.64	74.00	23.36	H
17008.500	53.77	-25.66	42.19	37.25	68.30	14.53	V
17243.000	52.80	-25.84	41.91	36.73	68.30	15.50	H
17527.000	52.21	-25.72	41.59	36.34	68.30	16.09	H

## Channel 142

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5652.400	61.21	-23.80	34.68	50.32	68.30	7.09	H
5767.000	60.45	-23.20	34.89	48.76	68.30	7.85	H
11410.000	49.62	-31.72	38.16	43.17	74.00	24.38	H
17119.500	52.81	-25.78	42.06	36.53	68.30	15.49	V
17427.000	52.02	-25.85	41.69	36.18	68.30	16.28	H
17537.500	52.16	-25.71	41.59	36.27	68.30	16.14	V

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## Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.472	68.33	-23.84	34.26	57.90	74.00	5.67	H
5149.047	67.47	-23.81	34.26	57.01	74.00	6.53	H
8335.500	49.50	-32.19	35.73	45.96	74.00	24.50	H
10420.000	45.91	-32.12	37.71	40.33	68.30	22.39	V
15620.000	52.74	-26.49	40.25	38.98	74.00	21.26	V
16788.500	53.14	-25.46	41.91	36.70	68.30	15.16	V

## Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5352.095	65.84	-23.91	34.34	55.41	68.30	2.46	V
5352.985	65.08	-23.91	34.34	54.65	68.30	3.22	V
8464.000	51.06	-32.26	35.71	47.61	74.00	22.94	H
10600.500	47.19	-31.82	37.84	41.17	74.00	26.81	V
15875.000	55.28	-26.30	40.55	41.02	74.00	18.72	V
16657.500	52.66	-25.64	41.72	36.58	68.30	15.63	V

## Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5461.740	64.20	-24.12	34.39	53.94	68.30	4.10	H
5466.915	64.20	-24.09	34.39	53.91	68.30	4.10	V
8848.000	46.24	-32.20	36.12	42.32	68.30	22.06	V
11060.000	45.56	-31.78	38.02	39.31	74.00	28.44	H
16590.000	50.69	-25.75	41.63	34.81	68.30	17.61	H
17741.500	50.94	-25.68	41.55	35.07	68.30	17.36	V

## Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5786.600	61.90	-23.04	34.93	50.01	68.30	6.40	V
5789.400	62.45	-23.01	34.93	50.53	68.30	5.85	V
8975.500	44.29	-32.18	36.27	40.21	68.30	24.01	H
11220.000	45.93	-31.65	38.09	39.49	74.00	28.07	H
16830.000	50.85	-25.42	41.96	34.31	68.30	17.45	V
17182.000	52.28	-25.81	41.98	36.11	68.30	16.02	V

## Channel 138

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5578.200	58.98	-23.30	34.55	47.73	68.30	9.32	V
5800.600	59.17	-22.92	34.95	47.14	68.30	9.13	V
11378.000	47.97	-31.90	38.15	41.71	74.00	26.03	H
17070.000	49.67	-25.75	42.11	33.31	68.30	18.63	V
17337.000	52.23	-25.88	41.79	36.31	68.30	16.07	H
17597.500	52.57	-25.68	41.58	36.67	68.30	15.73	H

**Conclusion: PASS**

**Note:**

1. The spurious emission above 18G is noise only.
2. All emissions below 30MHz are more than 20 dB below the limit

## A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

### Method of Measurement:

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver:

Quasi-Peak / Average Detector.

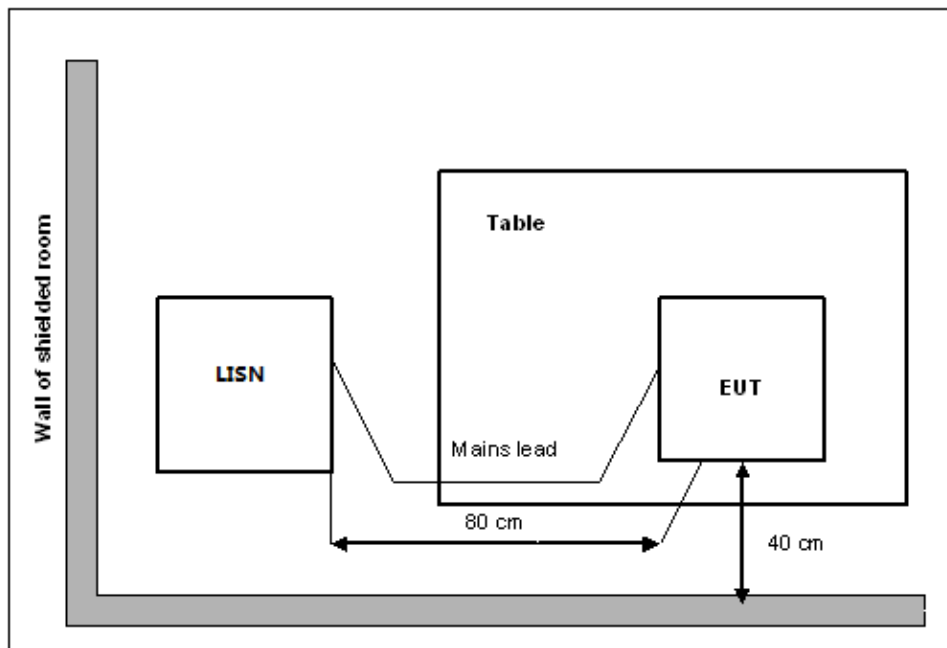
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

### Test Condition:

Voltage (V)	Frequency (Hz)
120	60

### Measurement Setup



**Measurement Result and limit:**

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.A7.1	Fig.A7.2	<b>P</b>
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

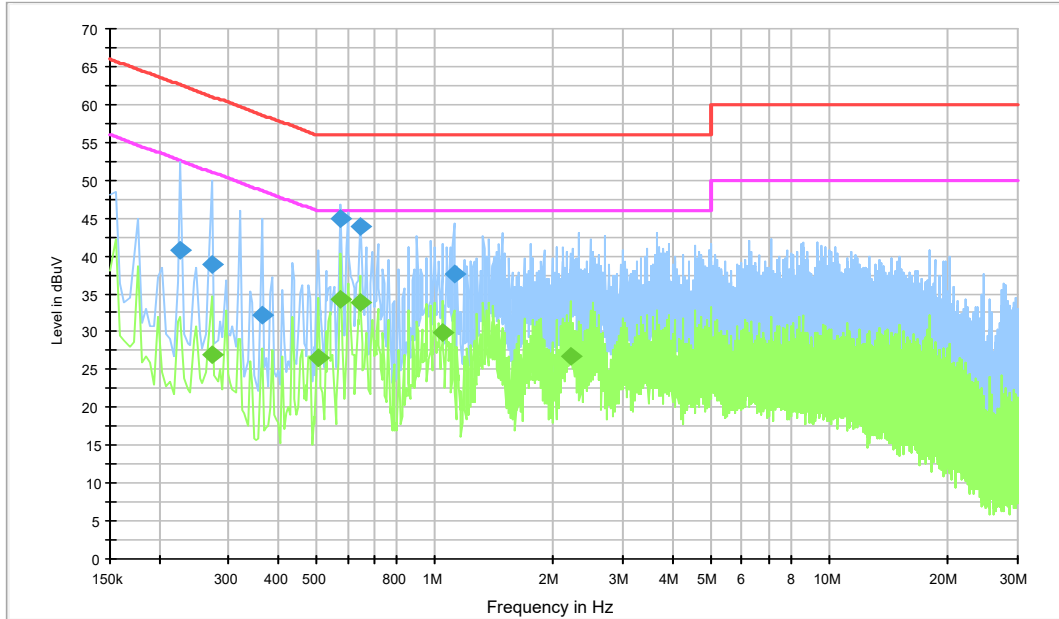
Frequency range (MHz)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.A7.1	Fig.A7.2	<b>P</b>
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

**Conclusion: PASS**
**Test graphs as below:**

Note: The measurement results showed here are worst cases.

**Traffic:**



**Fig.A7.1 AC Powerline Conducted Emission-Traffic**

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

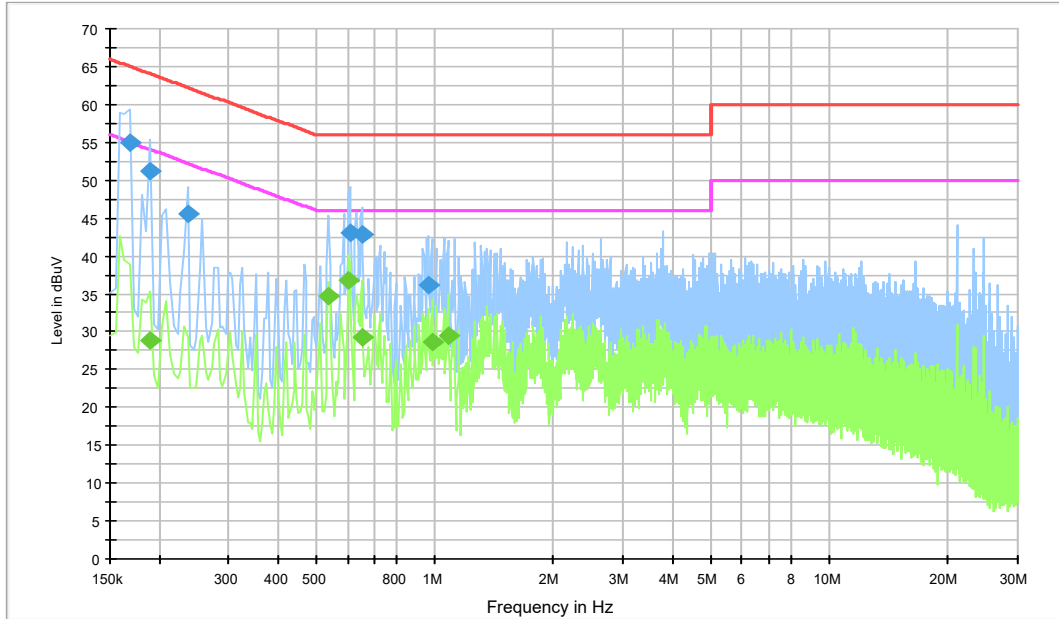
**Final Result 1**

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.226500	40.8	1000.	9.000	N	19.7	21.7	62.6
0.271500	39.0	1000.	9.000	N	19.7	22.1	61.1
0.366000	32.2	1000.	9.000	N	19.7	26.4	58.6
0.577500	44.9	1000.	9.000	N	19.7	11.1	56.0
0.649500	43.8	1000.	9.000	N	19.7	12.2	56.0
1.117500	37.6	1000.	9.000	N	19.6	18.5	56.0

**Final Result 2**

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.271500	26.9	1000.0	9.000	N	19.7	24.2	51.1
0.505500	26.4	1000.0	9.000	L1	19.8	19.6	46.0
0.577500	34.4	1000.0	9.000	N	19.7	11.6	46.0
0.645000	33.8	1000.0	9.000	N	19.7	12.2	46.0
1.045500	29.9	1000.0	9.000	N	19.6	16.1	46.0
2.197500	26.7	1000.0	9.000	L1	19.6	19.3	46.0

### Idle



**Fig.A7.2 AC Powerline Conducted Emission-Idle**

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.168000	54.9	1000.	9.000	N	25.1	10.1	65.1
0.190500	51.1	1000.	9.000	L1	21.2	12.9	64.0
0.235500	45.6	1000.	9.000	L1	19.7	16.6	62.3
0.609000	42.9	1000.	9.000	N	19.7	13.1	56.0
0.654000	42.8	1000.	9.000	N	19.7	13.2	56.0
0.960000	36.1	1000.	9.000	L1	19.7	19.9	56.0

#### Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190500	28.8	1000.0	9.000	L1	21.2	25.2	54.0
0.537000	34.7	1000.0	9.000	N	19.8	11.3	46.0
0.604500	36.8	1000.0	9.000	N	19.7	9.2	46.0
0.654000	29.2	1000.0	9.000	L1	19.7	16.8	46.0
0.982500	28.6	1000.0	9.000	N	19.6	17.4	46.0
1.081500	29.4	1000.0	9.000	L1	19.6	16.6	46.0



### A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than  $[10 \log (OBW/RBW)]$  below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

#### Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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#### Measurement Result:

Mode	Frequency	99% Occupied bandwidth ( MHz)		conclusion
		Fig.	Value	
802.11a	5180 MHz	Fig.43	17.48	P
	5200 MHz	Fig.44	17.46	P
	5240 MHz	Fig.45	17.45	P
802.11n HT20	5180 MHz	Fig.46	18.37	P
	5200 MHz	Fig.47	18.38	P
	5240 MHz	Fig.48	18.18	P
802.11ac HT40	5190 MHz	Fig.49	36.30	P
	5230 MHz	Fig.50	36.14	P
802.11ac HT80	5210 MHz	Fig.51	75.44	P

Conclusion: PASS

Test graphs as below:

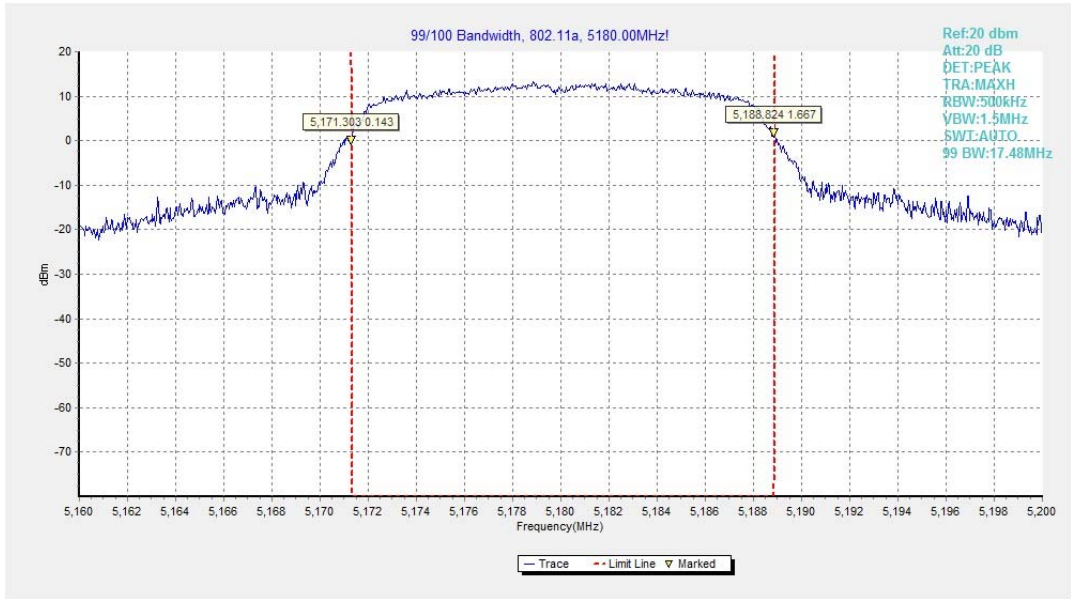


Fig.43 99% Occupied bandwidth (802.11a, 5180MHz)

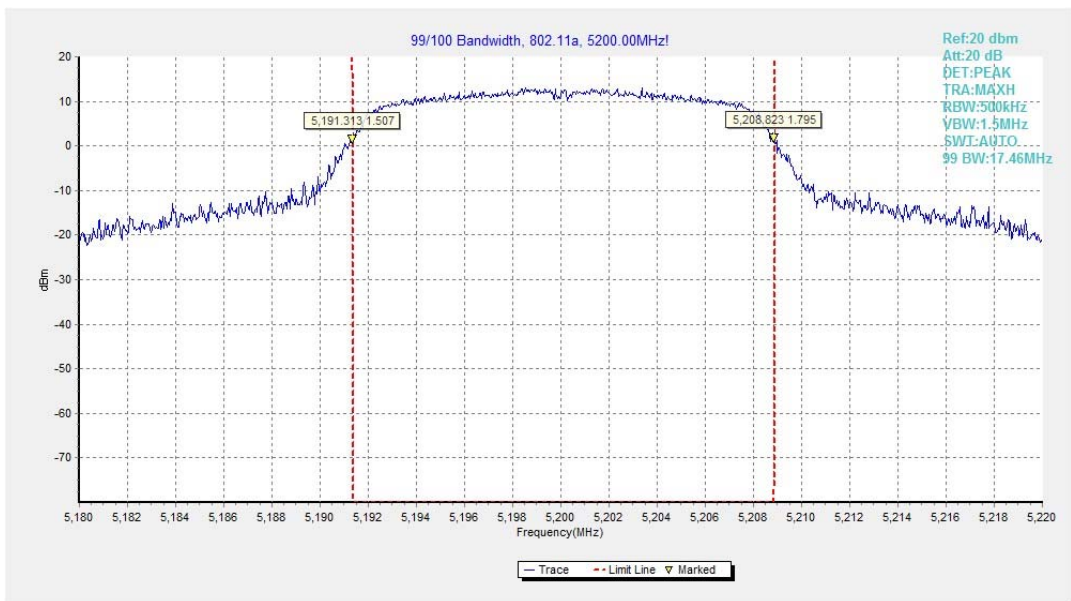
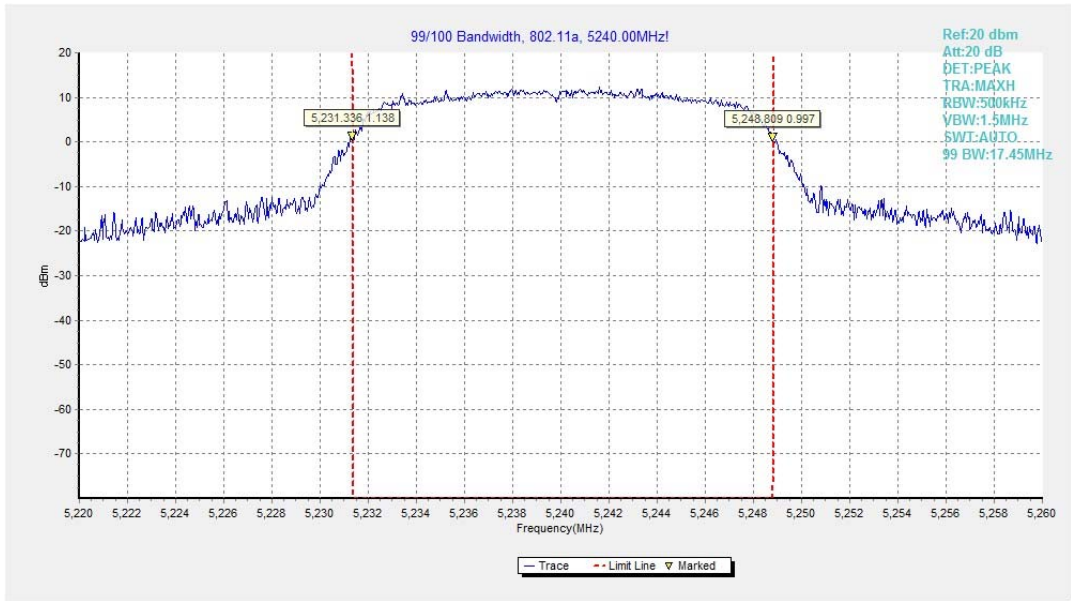
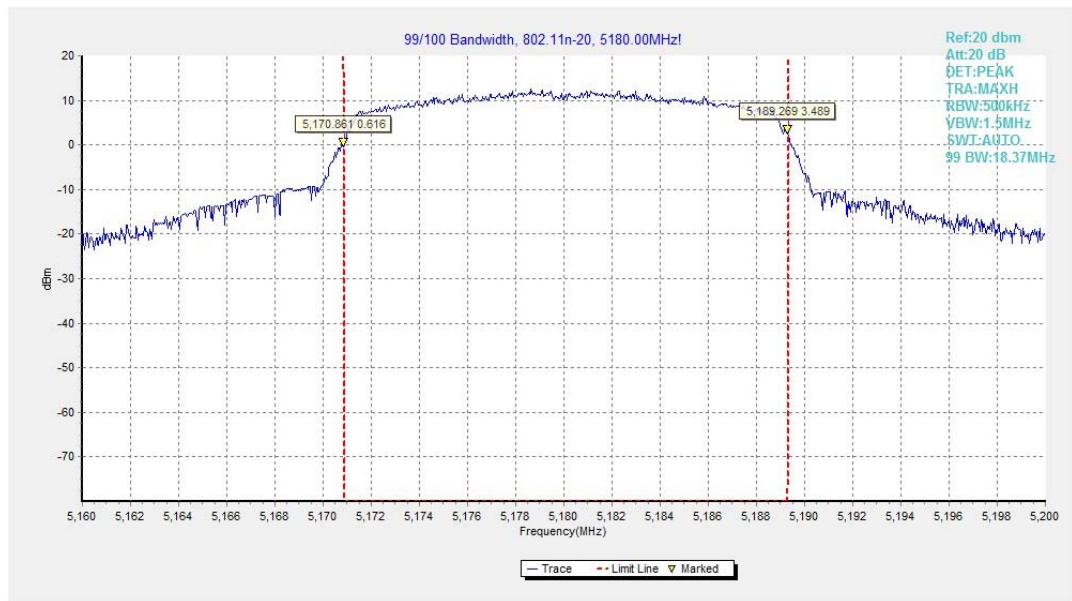


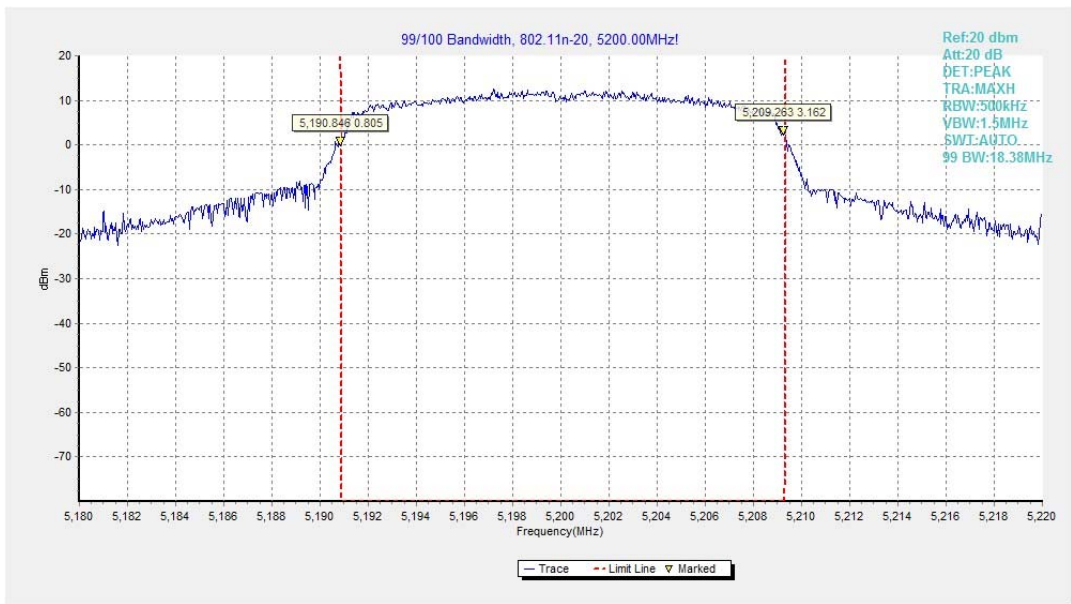
Fig.44 99% Occupied bandwidth (802.11a, 5200MHz)



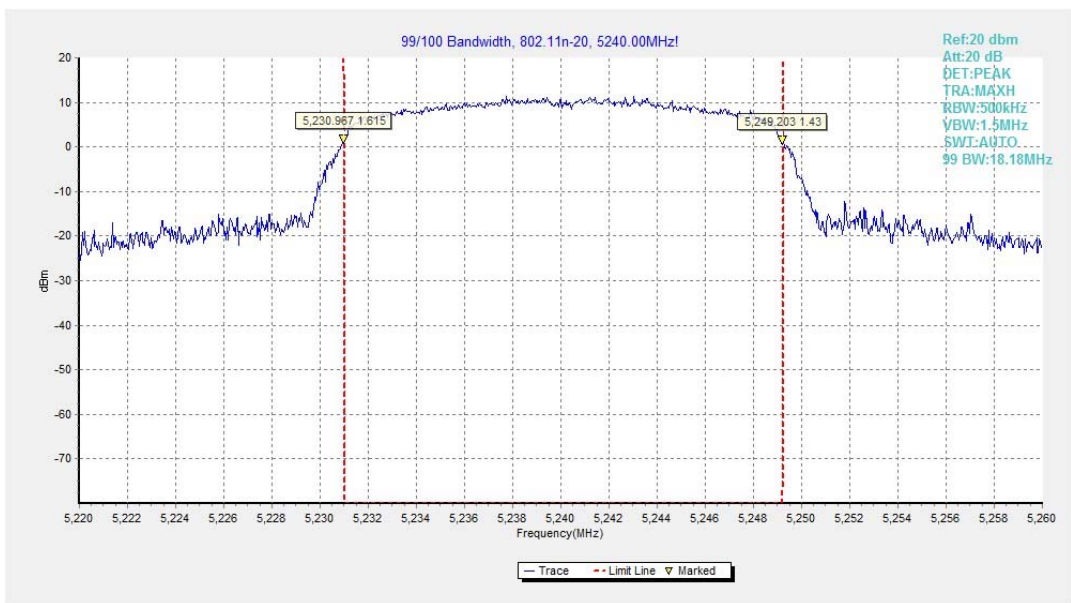
**Fig.45 99% Occupied bandwidth (802.11a, 5240MHz)**



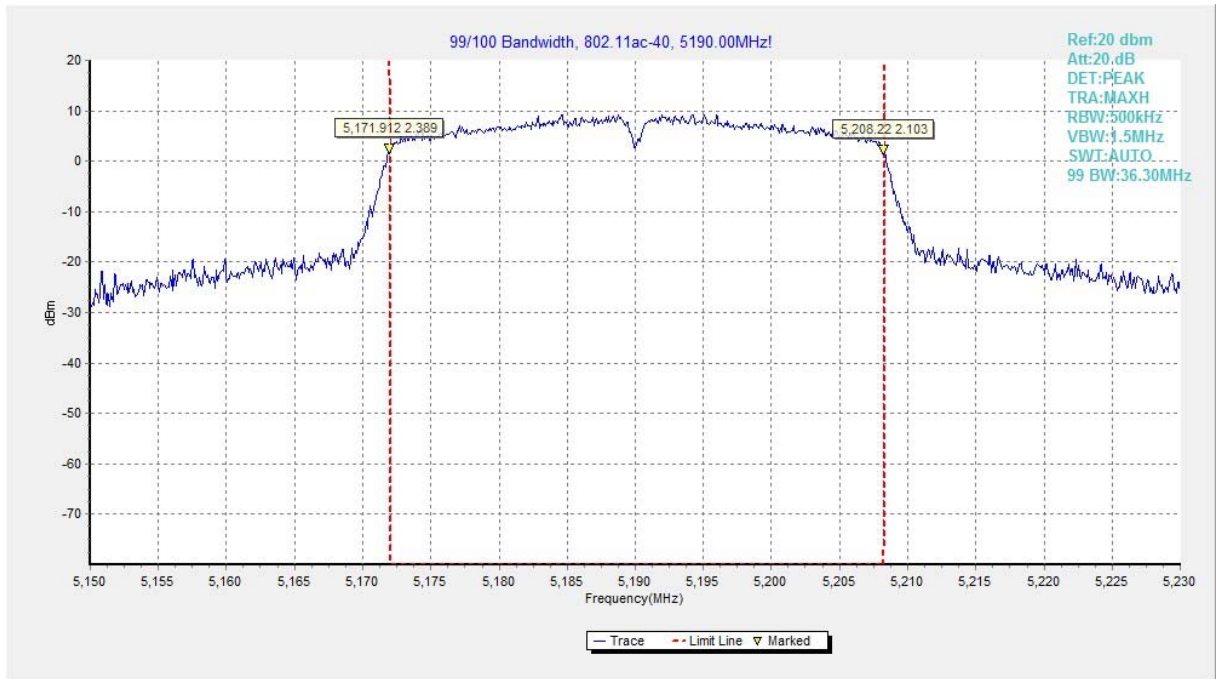
**Fig.46 99% Occupied bandwidth (802.11n-HT20, 5180MHz)**



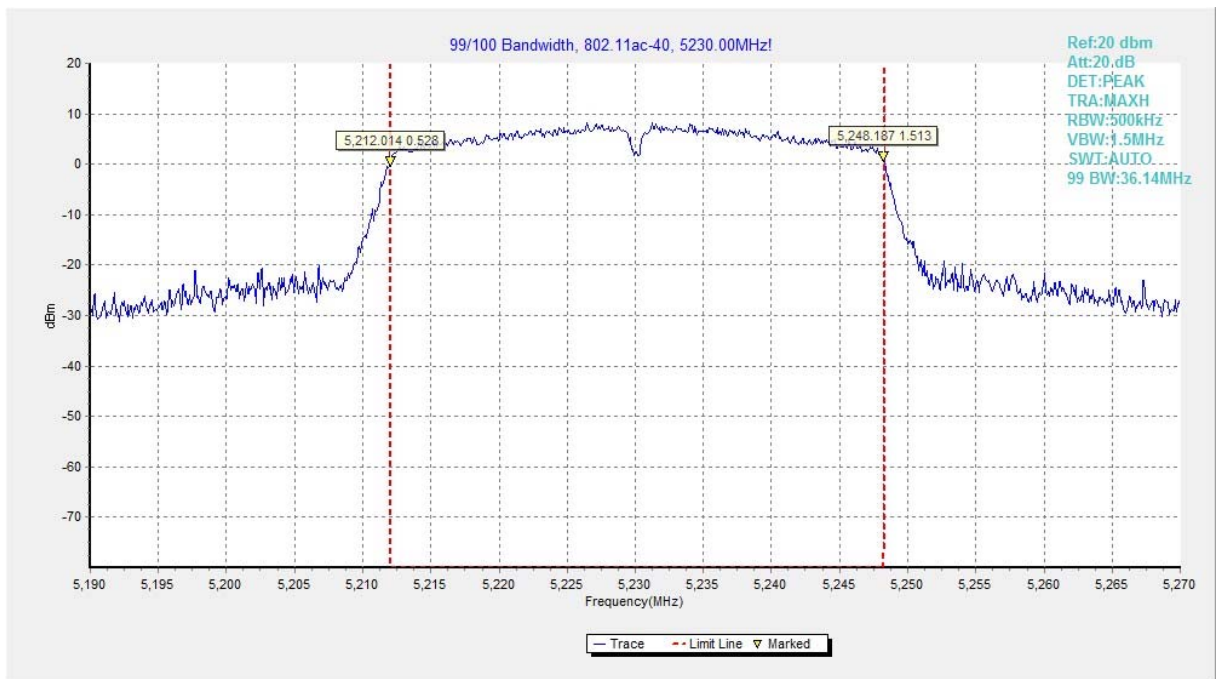
**Fig.47 99% Occupied bandwidth (802.11n-HT20, 5200MHz)**



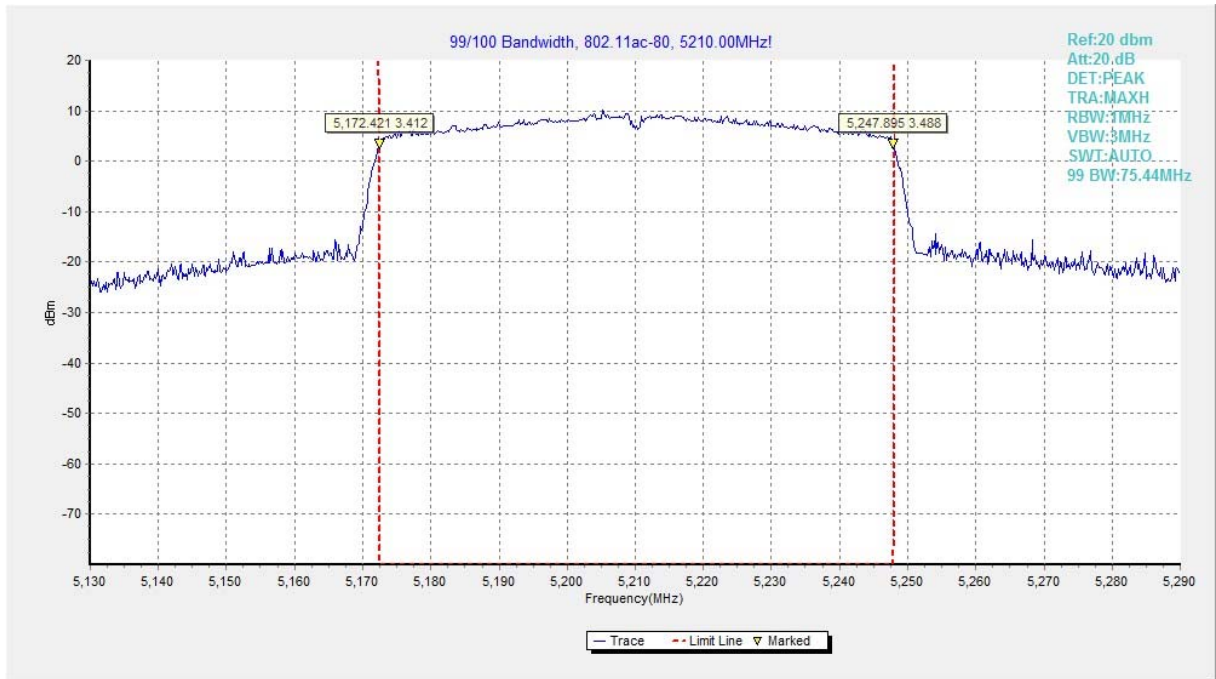
**Fig.48 99% Occupied bandwidth (802.11n-HT20, 5240MHz)**



**Fig.49 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)**



**Fig.50 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)**



**Fig.51 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)**

## A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

## ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

## ANNEX C: Accreditation Certificate



\*\*\* END OF REPORT BODY \*\*\*