





# FCC PART 15 TEST REPORT

No.I19Z62252-IOT06

for

Client name: TCL Communication Ltd.

**Product name: LTE Mobile WiFi Router** 

Model name: MW43TM

With

FCC ID: 2ACCJB117

**Hardware Version: 03** 

Software Version: MW43 ZZ 02.00 01

Issued Date: 2020-02-19

#### 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.

#### **Test Laboratory:**

#### CTTL-Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: <a href="mailto:cttl\_terminals@caict.ac.cn">cttl\_terminals@caict.ac.cn</a>, website: <a href="mailto:www.caict.ac.cn">www.caict.ac.cn</a>,





## **REPORT HISTORY**

Report Number	Revision	Description	Issue Date	
I19Z62252-IOT06	Rev.0	1st edition	2020-02-19	





## **CONTENTS**

CONTI	ENTS	3
1.	TEST LATORATORY	5
1.1.	Introduction & Accreditation	5
1.2.	TESTING LOCATION	5
1.3.	TESTING ENVIRONMENT	5
1.4.	Project date	5
1.5.	SIGNATURE	5
2.	CLIENT INFORMATION	6
2.1.	APPLICANT INFORMATION	6
2.2.	MANUFACTURER INFORMATION	6
3.	EQUIPMENT UNDER TEST (EUT) AND ANCILLARYEQUIPMENT(AE)	7
3.1.	ABOUT EUT	7
3.2.	INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	7
3.3.	INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	7
3.4.	EUT SET-UPS	8
3.5.	GENERAL DESCRIPTION	8
3.6.	INTERPRETATION OF THE TEST ENVIRONMENT	8
4.	REFERENCE DOCUMENTS	8
4.1.	DOCUMENTS SUPPLIED BY APPLICANT	8
4.2.	REFERENCE DOCUMENTS FOR TESTING	8
5.	LABORATORY ENVIRONMENT	9
6.	SUMMARY OF TEST RESULTS	9
6.1.	SUMMARY OF TEST RESULTS	9
6.2.	Statements	9
6.3.	Test Conditions	9
7.	TEST EQUIPMENTS UTILIZED	10
8.	MEASUREMENT UNCERTAINTY	11
8.1	Transmitter Output Power	11
8.2	PEAK POWER SPECTRAL DENSITY	11
8.3	OCCUPIED CHANNEL BANDWIDTH	
8.4	BAND EDGES COMPLIANCE	
8.5	Spurious Emissions	11
ANNE	X A: MEASUREMENT RESULTS	12
A.1.	MEASUREMENT METHOD	12





	A.2. MAXIMUM OUTPUT POWER	13
	A.3. PEAK POWER SPECTRAL DENSITY (CONDUCTED)	15
	A.4. OCCUPIED 26DB BANDWIDTH(CONDUCTED)	16
	A.5. BAND EDGES COMPLIANCE	24
	A5.1 BAND EDGES - RADIATED	24
	A.6. Transmitter Spurious Emission	31
	A.7. AC POWERLINE CONDUCTED EMISSION (150kHz- 30MHz)	41
	A.8. 99% OCCUPIED BANDWIDTH	44
	A.9. Frequency Stability	52
	A.10. POWER CONTROL	52
Δ	NNEX B: ACCREDITATION CERTIFICATE	. 53





## 1. TEST LATORATORY

#### 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

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, P. R. China 100176

Radiated testing Location: CTTL(huayuan North Road)

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

P. R. China100191

## 1.3. Testing Environment

Normal Temperature:  $15-35^{\circ}$ C Relative Humidity: 20-75%

### 1.4. Project date

Testing Start Date: 2019-12-23
Testing End Date: 2020-01-20

### 1.5. Signature

Xie Fangfang

(Prepared this test report)

Zheng Wei

(Reviewed this test report)

Hu Xiaoyu

(Approved this test report)





## 2. CLIENT INFORMATION

## 2.1. Applicant Information

Company Name: TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Address:

Park, Shatin, NT, Hong Kong

City: Hong Kong

Postal Code:

Country: China

Telephone: 0086-755-36611722

Fax: 0086-755-36612000-81722

### 2.2. Manufacturer Information

Company Name: TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Address:

Park, Shatin, NT, Hong Kong

City: Hong Kong

Postal Code: /

Country: China

Telephone: 0086-755-36611722

Fax: 0086-755-36612000-81722





## 3. EQUIPMENT UNDER TEST (EUT) AND

## **ANCILLARYEQUIPMENT(AE)**

### 3.1. About EUT

Description LTE Mobile WiFi Router

Model name MW43TM FCC ID 2ACCJB117 WLAN Frequency Range ISM Bands:

-5150MHz~5250MHz

Type of modulation OFDM

Antenna Integral Antenna

Voltage 3.8V

Note: Photographs of EUT are shown in ANNEX C of this test report. Components list, please refer to documents of the manufacturer.

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

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	015659000001186	03	MW43_ZZ_02.00_01
EUT2	015659000001939	03	MW43_ZZ_02.00_01

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

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

5.5. Internal identification of AL asea during the test						
AE ID*	Description	Type	SN			
AE1	Battery	/	/			
AE3	Charger	/	/			
AE5	USB Cable	/	/			
AE1						
Model		TLi043F1/CAB4	300004C1			
Manufad	cturer	BYD	BYD			
Capacit	ance	4400mAh	4400mAh			
Nomina	l voltage	3.7 V				
AE3						
Model		UC13US				
Manufad	cturer	Huizhou Puan E	Huizhou Puan Electronics Co., Ltd			
Length of cable		/				
AE5						
Model		CDA0000123C2	)			
Manufad	cturer	SHENGHUA				

Manufacturer SHENGHUA

Length of cable /

<sup>\*</sup>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.12 EUT1+ AE1+ AE3+ AE5 WIFI

## 3.5. General Description

The Equipment under Test (EUT) is a model of LTE Mobile WiFi Router 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.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices			
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the	2013		
	Range of 9 kHz to 40 GHz	_0.0		
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01			
	Federal Communications Commission Office of Engineering			
	and Technology Laboratory Division			
	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON			
KDB 558074 D01	DIGITAL TRANSMISSION SYSTEM, FREQUENCY	2019		
	HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID			
	SYSTEM DEVICES OPERATING UNDER SECTION			
	15.247 OF THE FCC RULES			





## 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	/	Р
Peak Power Spectral Density	15.407	/	Р
Occupied 26dB Bandwidth	15.403	/	Р
Band edge compliance (Radiated)	15.209	/	Р
Transmitter spurious emissions (Radiated)	15.407	/	Р
AC Powerline Conducted Emission (150kHz-30MHz)	15.407	/	Р
Frequency Stability	15.407	/	Р
99% Occupied bandwidth	/	/	Р
Transmit Power Control	15.407	/	NA

Please refer to ANNEX A for detail.

Terms used in Verdict column

Р	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	<b>26</b> ℃
Voltage	3.8V
Humidity	44%





## 7. TEST EQUIPMENTS 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	2020-03-14
4	Shielding Room	S81	/	ETS-Lindgren	/	/

## Radiated emission test system

			Serial	Calibration	Calibration	
No.	Equipment	Model	Number	Manufacturer	Period	Due date
1	Test Receiver	ESU26	100376	Rohde & Schwarz	1 year	2020-10-30
2	BiLog Antenna	VULB9163	9163-514	Schwarzbeck	1 year	2020-02-03
3	Dual-Ridge Waveguide Horn Antenna	3117	00139065	ETS-Lindgren	1 year	2020-11-10
4	EMI Antenna	3116	2663	ETS-Lindgren	1 Year	2020-05-31
5	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	1 year	2020-05-16
6	Universal Radio Communication Tester	CMW500	159408	R&S	1 year	2020-02-03





## 8. 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)
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		



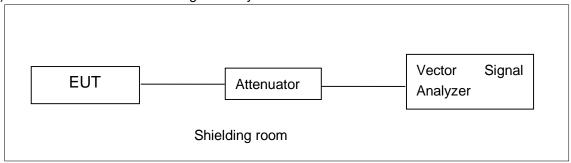


## ANNEX A: MEASUREMENT RESULTS

#### A.1. Measurement Method

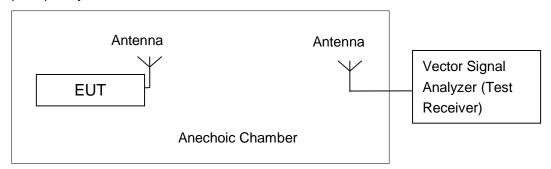
#### A.1.1. Conducted Measurements

- 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		

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

The measurementmethod SA-2 is made according to KDB 789033

### **Measurement Results:**

11a	6	9	12	18	24	36	48	54		
	99.11%	99.12%	98.13%	98.02%	97.05%	94.12%	93.33%	91.32%		
11n-20	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7		
	98.81%	99.23%	98.21%	96.36%	95.23%	96.41%	97.47%	96.48%		
11n-40	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7		
	97.80%	97.56%	97.32%	95.38%	97.23%	96.00%	95.00%	93.73%		_
11ac-20	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	
	98.93%	99.25%	98.18%	98.00%	97.21%	95.20%	94.00%	94.00%	93.86%	
11ac-40	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
	98.16%	98.05%	97.00%	97.00%	96.08%	96.00%	95.21%	95.00%	94.00%	93.50%
11ac-80	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
	95.25%	95.00%	95.22%	94.37%	95.00%	93.36%	94.33%	95.00%	93.22%	92.98%

### 802.11a mode

		Test Result (dBm)								
Mode	Frequency	Data Rate (Mbps)								
		6	9	12	18	24	36	48	54	
	5180MHz	16.67	16.60	16.57	16.68	16.93	14.29	12.73	12.58	
802.11a	5200MHz	/	/	/	/	16.41	/	/	/	
	5240MHz	/	/	/	/	16.34	/	/	/	

The data rate 24Mbps is selected as worse condition, and the following cases are performed with this condition.

#### 802.11n-HT20 mode

					Test Res	ult (dBm)			
Mode	Frequency	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
000 115	5180MHz	15.96	15.72	15.79	13.75	13.75	12.63	12.56	12.67
802.11n (HT20)	5200MHz	15.75	/	/	/	/	/	/	/
(П120)	5240MHz	15.74	/	/	/	/	/	/	/

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





### 802.11ac-HT20 mode

	Frequency	Test Result (dBm)									
Mode		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	
000 44	5180MHz	14.76	14.73	14.56	13.44	13.52	13.34	13.34	13.41	11.48	
802.11ac (HT20)	5200MHz	14.31	/	/	/	/	/	/	/	/	
(11120)	5240MHz	14.37	/	/	/	/	/	/	/	/	

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

#### 802.11n-HT40 mode

				-	Test Res	ult (dBm	)		
Mode	Frequency	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n	5190MHz	14.09	14.06	13.98	12.05	11.97	10.95	11.18	11.19
(HT40)	5230MHz	13.91	/	/	/	/	/	/	/

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

#### 802.11ac-HT40 mode

	Eroguen	Test Result (dBm)									
Mode											
	су		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac	5190MHz	13.96	13.92	13.86	11.85	11.87	10.88	10.93	10.96	9.07	8.99
(HT40)	5230MHz	13.78	/	/	/	/	/	/	/	/	/

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

### 802.11ac-HT80 mode

	Eroguen	Test Result (dBm)										
Mode	Frequen	Data Rate										
	су	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	
802.11ac (HT80)	5210MHz	12.66	12.63	12.58	11.88	11.81	10.85	10.75	10.62	8.85	8.77	

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





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

### **Measurement Limit:**

Standard	Frequency (MHz)	Limit (dBm/MHz)
	5150MHz~5250MHz	11
FCC CRF Part 15.407(a)	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
	5180 MHz	7.57	Р
802.11a	5200 MHz	7.69	Р
	5240 MHz	7.56	Р
000 44 =	5180 MHz	7.30	Р
802.11n HT20	5200 MHz	7.56	Р
П120	5240 MHz	6.99	Р
000 1100	5180 MHz	6.31	Р
802.11ac HT20	5200 MHz	6.56	Р
П120	5240 MHz	5.98	Р
802.11n	5190 MHz	2.52	Р
HT40	5230 MHz	2.15	Р
802.11ac	5190 MHz	2.50	Р
HT40	5230 MHz	2.10	Р
802.11ac HT80	5210MHz	-1.79	Р

**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
	5180 MHz	Fig.1	33.70	Р
802.11a	5200 MHz	Fig.2	33.55	Р
	5240 MHz	Fig.3	33.85	Р
000 11n	5180 MHz	Fig.4	21.25	Р
802.11n HT20	5200 MHz	Fig.5	21.10	Р
H120	5240 MHz	Fig.6	21.20	Р
000.44==	5180 MHz	Fig.7	20.65	Р
802.11ac HT20	5200 MHz	Fig.8	20.60	Р
H120	5240 MHz	Fig.9	20.70	Р
802.11n	5190 MHz	Fig.10	40.08	Р
HT40	5230 MHz	Fig.11	40.32	Р
802.11ac	5190 MHz	Fig.12	40.24	Р
HT40	5230 MHz	Fig.13	40.32	Р
802.11ac HT80	5210MHz	Fig.14	83.20	Р

Conclusion: PASS
Test graphs as below:





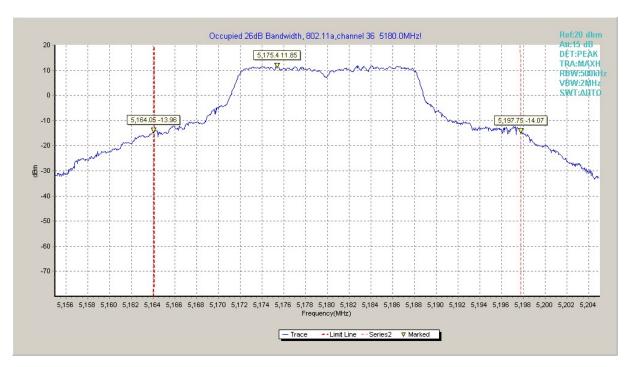


Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

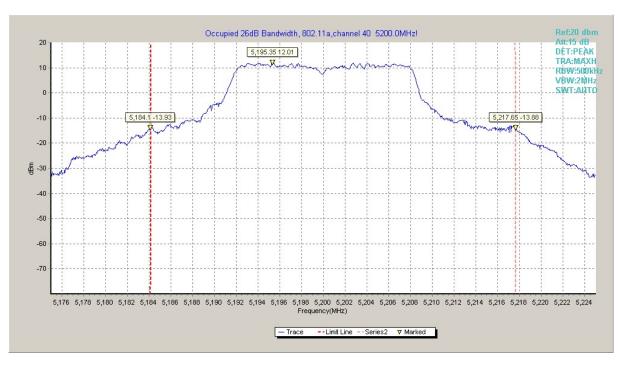


Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)





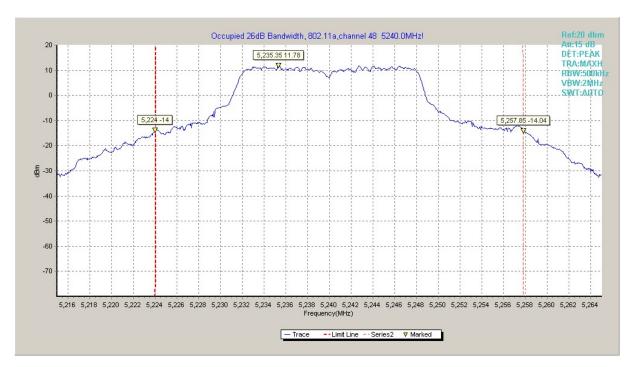


Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

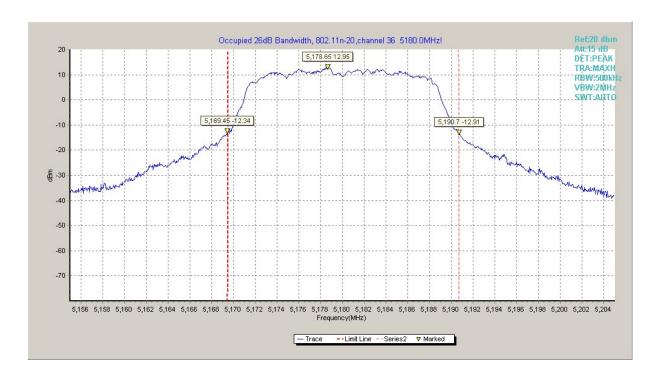


Fig.4 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)





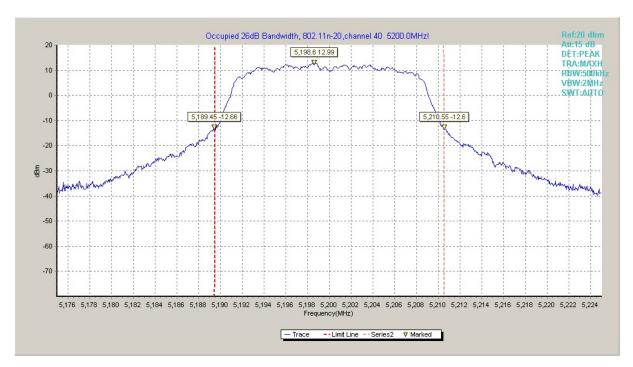


Fig.5 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

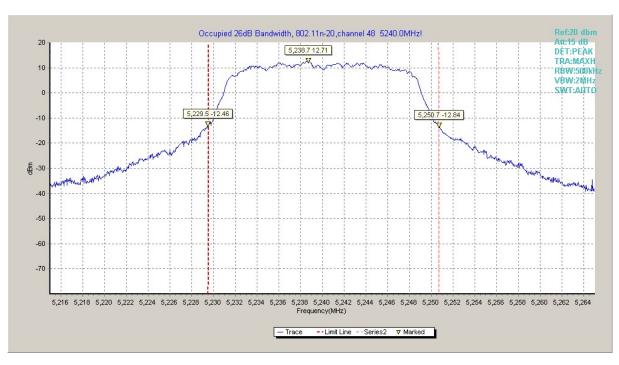


Fig.6 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)





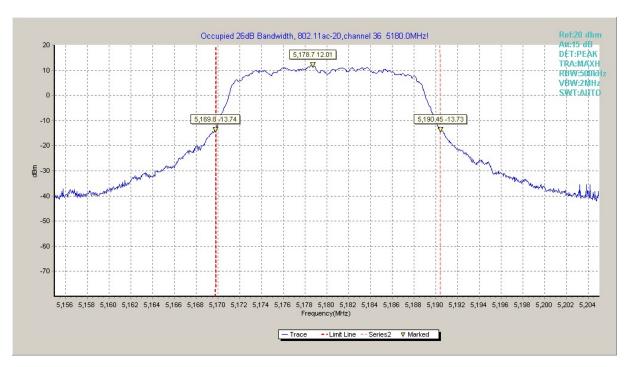


Fig.7 Occupied 26dB Bandwidth (802.11ac-HT20, 5180MHz)

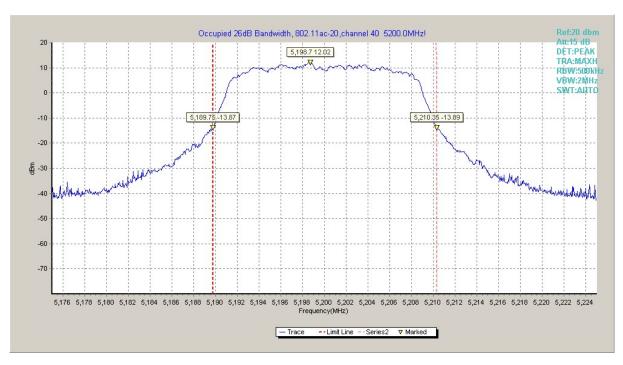


Fig.8 Occupied 26dB Bandwidth (802.11ac-HT20, 5200MHz)





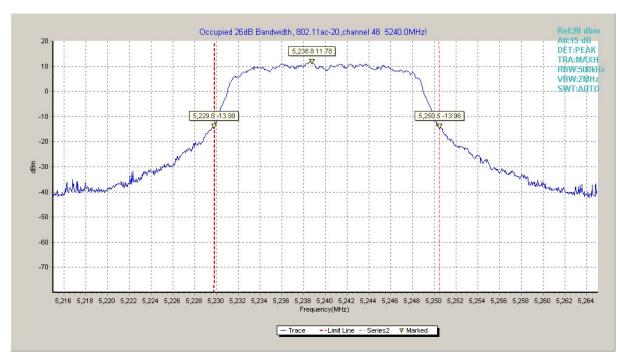


Fig.9 Occupied 26dB Bandwidth (802.11ac-HT20, 5240MHz)

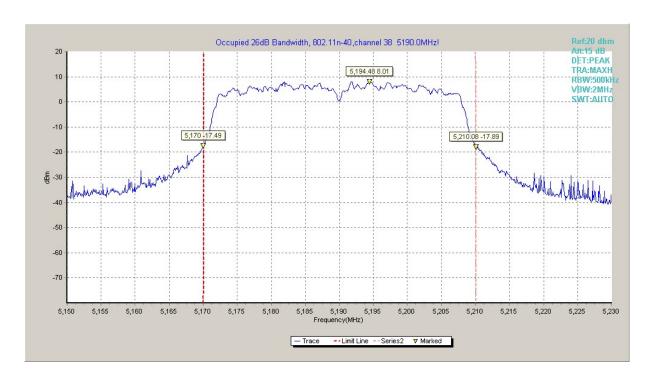


Fig.10 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)





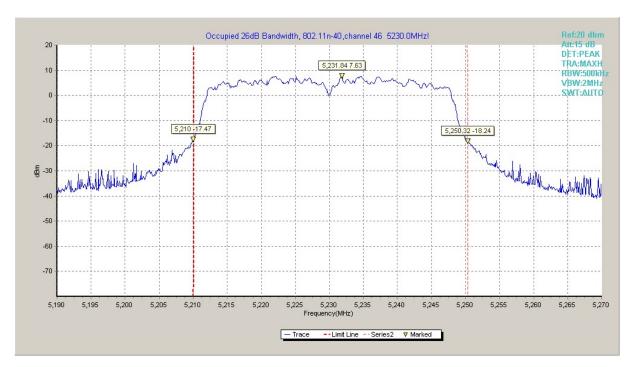


Fig.11 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

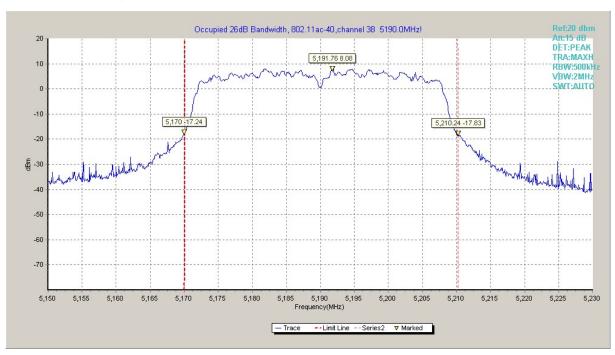


Fig.12 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)





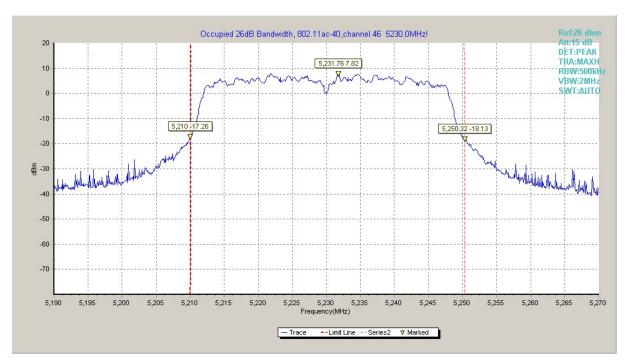


Fig.13 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)



Fig.14 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)





## A.5. Band Edges Compliance

## A5.1 Band Edges - Radiated

### **Measurement Limit:**

Standard	Limit (dB μ V/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

The measurement is made according to KDB 789033

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)).

## **Measurement Uncertainty:**

Measurement Uncertainty	5.40dB
-------------------------	--------

#### **Measurement Result:**

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.15	Р
002.11a	5320 MHz	Fig.16	Р
802.11n	5180 MHz	Fig.17	Р
HT20	5320 MHz	Fig.18	Р
802.11ac	5180 MHz	Fig.19	Р
HT20	5320 MHz	Fig.20	Р
802.11n	5190 MHz	Fig.21	Р
HT40	5310 MHz	Fig.22	Р
802.11ac	5190 MHz	Fig.23	Р
HT40	5310 MHz	Fig.24	Р
802.11ac HT80	5210MHz	Fig.25	Р

**Conclusion: PASS** 





Conclusion: PASS
Test graphs as below:

RE - Power-5.125GHz-5.175GHz

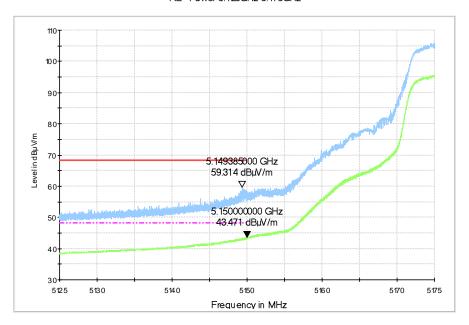
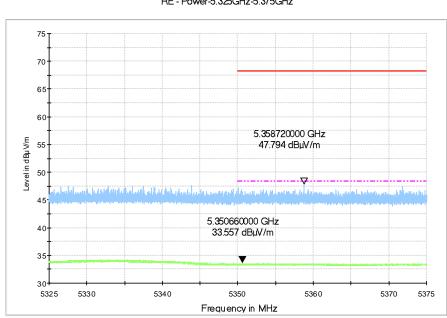


Fig.15 Band Edges (802.11a, 5180MHz)



RE - Power-5.325GHz-5.375GHz

Fig.16 Band Edges (802.11a, 5320MHz)





RE - Power-5.125GHz-5.175GHz

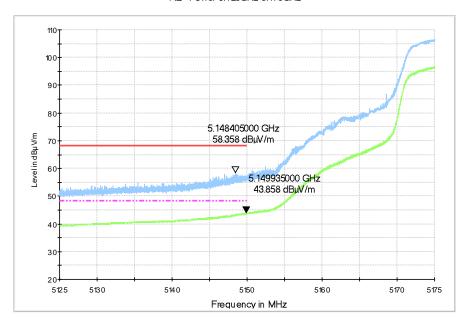
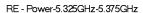


Fig.17 Band Edges (802.11n-HT20, 5180MHz)



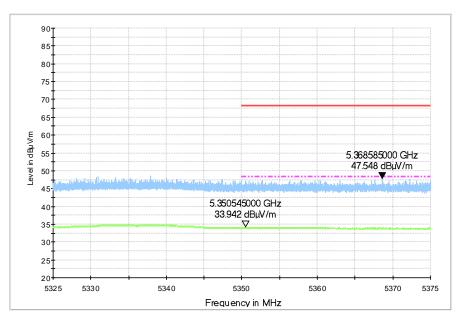


Fig.18 Band Edges (802.11n-HT20, 5320MHz)





RE - Power-5.125GHz-5.175GHz

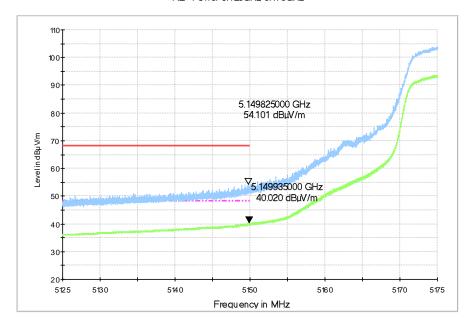
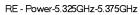


Fig.19 Band Edges (802.11ac-HT20, 5180MHz)



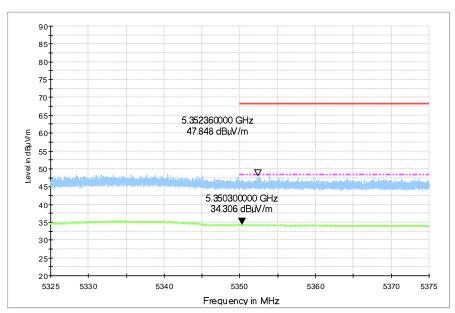


Fig.20 Band Edges (802.11ac-HT20, 5320MHz)