

North 710, Yihua Building, Shennan Road, Futian District,  
Shenzhen, P. R. China  
Telephone: +86-755-29413628,  
Fax: +86-755-22639141

FCC ID: UU8-MFC150US  
Report No.: FCC11-RTE111402  
Page: 1 of 51

## TEST REPORT

**Application No.:** FCC –RTE111402RF  
**Applicant:** Lexibook America  
**Address of Applicant:** C/O NATXIS PRAMEX INTERNATIONAL -NORTH AMERICA 1251 avenue of the Americas 34th floor  
**FCC ID:** UU8-MFC150US  
**Fundamental Carrier Frequency :** 2.412GHz to 2.462GHz  
**Equipment Under Test (EUT):**  
EUT Name: Home Tablet  
Item No.: MFC150US,MFC160US,MFC170US  
Serial No.: Not supplied by client  
**Standards:** FCC PART 15 Subpart C: 2008  
**Date of Receipt:** 01 November, 2011  
**Date of Test:** 07 November, 2011 to 13 November, 2011  
**Date of Issue:** 14 November, 2011

<b>Test Result :</b>	<b>PASS*</b>
----------------------	--------------

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Kevin Yu  
Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of EBO Technology Approvals or testing done by EBO Technology Approvals in connection with, distribution or use of the product described in this report must be approved by EBO Technology Approvals in writing. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 1 Test Summary

Test	Test Requirement	Standard Paragraph	Result
<b>Conducted Emissions</b>	FCC PART 15:2008	Section 15.207	PASS
<b>Radiated Emissions</b>	FCC PART 15:2008	Section 15.205/15.209	PASS
<b>Maximum Peak Output Power</b>	FCC PART 15:2008	Section 15.247 (b)	PASS
<b>6dB Occupied Bandwidth</b>	FCC PART 15:2008	Section 15.247 (a2)	PASS
<b>Band Edges and Conducted Spurious Emissions</b>	FCC PART 15:2008	Section 15.247(d)	PASS
<b>Power Spectral Density Measurement</b>	FCC PART 15:2008	Section 15.247 (e)	PASS
<b>Antenna requirement</b>	FCC PART 15:2008	Section 15.247 (b)	PASS
<b>RF Exposure Compliance Requirement</b>	FCC PART 15:2008	15.247(b)(4)& 1) c) D01 Mobile Portable RF Exposure v04	PASS

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 2 Contents

	Page
1 TEST SUMMARY .....	2
2 CONTENTS .....	3
3 GENERAL INFORMATION .....	4
3.1 CLIENT INFORMATION .....	4
3.2 GENERAL DESCRIPTION OF E.U.T .....	4
3.3 TEST SUPPORTING SYSTEM DETAILS .....	5
3.4 TEST LOCATION .....	5
3.5 TEST FACILITY .....	6
3.6 MEASUREMENT UNCERTAINTY .....	6
3.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER .....	6
4 EQUIPMENT USED DURING TEST .....	7
5 TEST RESULTS .....	8
5.1 CONDUCTED EMISSIONS .....	8
5.1.1 <i>Test Setup</i> .....	9
5.1.2 <i>Test Procedure</i> .....	9
5.1.3 <i>Measurement Data</i> .....	9
5.2 RADIATED EMISSIONS .....	12
5.2.1 <i>Test Setup</i> .....	13
5.2.2 <i>Test Procedure</i> .....	14
5.2.3 <i>Measurement Data</i> .....	15
5.3 MAXIMUM PEAK OUTPUT POWER .....	27
5.3.1 <i>Test Setup</i> .....	27
5.3.2 <i>Test Procedure</i> .....	27
5.3.3 <i>Measurement Data</i> .....	28
5.4 6dB OCCUPIED BANDWIDTH .....	31
5.4.1 <i>Test Setup</i> .....	31
5.4.2 <i>Test Procedure</i> .....	31
5.4.3 <i>Measurement Data</i> .....	32
5.5 BAND EDGES AND CONDUCTED SPURIOUS EMISSIONS MEASUREMENT .....	37
5.5.1 <i>Test Setup</i> .....	37
5.5.2 <i>Test Procedure</i> .....	37
5.5.3 <i>Measurement Data</i> .....	37
5.6 POWER SPECTRAL DENSITY MEASUREMENT .....	44
5.6.1 <i>Test Setup</i> .....	44
5.6.2 <i>Test Procedure</i> .....	44
5.6.3 <i>Measurement Data</i> .....	45
5.7 ANTENNA REQUIREMENT .....	50
5.8 RF EXPOSURE COMPLIANCE .....	51

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 3 General Information

#### 3.1 Client Information

Applicant: Lexibook America  
Address of Applicant: C/O NATXIS PRAMEX INTERNATIONAL -NORTH AMERICA 1251  
avenue of the Americas 34th floor  
Factory: Shenzhen Shenchuang Electronics Co.,Ltd  
Address of Factory: 7th floor,West Tower,Hengfanglaobing Industrial Park,Xingye  
Road,Xixiang Town,Bao'an District,Shenzhen

#### 3.2 General Description of E.U.T.

Equipment Under Test: Wireless Data Transmission (WiFi)  
Trade Name: Lexibook  
Type Designation: Home tablet  
Model Number: MFC150US,MFC160US,MFC170US  
Standards: IEEE802.11b/g  
Type of modulation(802.11b): DSSS(DBPSK,DQPSK,CCK)  
Type of modulation(802.11g): OFDM (BPSK,QPSK,16QAM,64QAM)  
Max Data Rate: 11Mbps(802.11b),54Mbps(802.11g)  
Conducted Power: 12.03dBm(802.11b), 11.25dBm(802.11g)  
Number of Channels: 11  
Operation Frequency: 2412 ~2462MHz  
Antenna Designation: The WIFI antenna is printed in the PCB  
Antenna Gain: 0dBi  
Power Supply: AC Adapter  
Model:GP302U-050-200  
Input:AC 100-240V 50/60Hz 0.5A  
Output:DC 5.0V 2.0A  
Date of Test: November 07, 2011 to Novembere 13, 2011

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Channel	Frequency(MHz)	Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

Note:

Regards to the frequency band over 10MHz, the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.

So the there channel as follow:

Lowest channel: 2412MHz

Middle channel: 2437MHz

Highest channel: 2462 MHz

### 3.3 Test Supporting System Details

Equipment Name	Model No.	Manufacturer	FCC Status
Notebook Computer	nc4000	HP	DOC
Monitor	TFT1780PS	AOV	DOC
Keyboard	JME7053	Lenovo	DOC
Mouse	N/A	Lenovo	DOC

### 3.4 Test Location

All tests were sub-contracted to:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### **3.5 Test Facility**

FCC-Registration No.:600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, July 20, 2010.

### **3.6 Measurement Uncertainty**

of +/-  $3 \times 10^{-9}$  for 6dB Bandwidth Measurement  
of +/- 0.8 dB for Peak Output Power Measurement  
of +/- 0.8 dB for Band Edge RF Conducted Measurement  
of +/- 0.8 dB for Spurious RF Conducted Emission Measurement  
of +/- 0.8 dB for Power Density  
of +/- 4.5 dB for Radiated Emissions  
of +/- 2.3 dB for Conducted Emissions

### **3.7 Other Information Requested by the Customer**

None

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 4 Equipment Used during Test

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2011	Mar. 29 2012
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Sept. 10 2010	Sept. 09 2012
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2011	Feb. 25 2012
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Aug. 03 2011	Aug. 02 2012
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	Aug. 03 2011	Aug. 02 2012
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	Apr. 01 2011	Mar. 31 2012
9	Coaxial Cable	GTS	N/A	GTS211	Apr. 01 2011	Mar. 31 2012
9	Coaxial cable	GTS	N/A	GTS210	Apr. 01 2011	Mar. 31 2012
11	Coaxial Cable	GTS	N/A	GTS212	Apr. 01 2011	Mar. 31 2012
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Aug. 03 2011	Aug. 02 2012
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Aug. 03 2011	Aug. 02 2012
14	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Aug. 03 2011	Aug. 02 2012
15	Band filter	Amindeon	82346	GTS219	Aug. 03 2011	Aug. 02 2012

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS252	Apr. 10 2011	Apr. 09 2012
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Sept. 14 2010	Sept. 13 2012
3	10dB Pulse Limit	Rohde & Schwarz	N/A	GTS224	Sept. 14 2010	Sept. 13 2012
4	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Apr. 14 2011	Apr. 13 2012
5	Coaxial Cable	GTS	N/A	GTS227	Apr. 01 2011	Mar. 31 2012
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5 Test Results

### 5.1 Conducted Emissions

<b>Test Requirement:</b>	FCC Part15 B Section 15.207
<b>Test Method:</b>	ANSI C63.4:2003
<b>Frequency Range:</b>	150KHz to 30MHz
<b>Class/Severity:</b>	Class B
<b>Detector:</b>	Peak for pre-scan (9 kHz resolution bandwidth)
<b>Test Mode:</b>	WIFI mode (Notebook Active with the EUT under WIFI mode)
<b>Test Voltage:</b>	120Vac,60Hz
<b>Test Date:</b>	07 November, 2011
<b>Temperature:</b>	24°C
<b>Humidity:</b>	52%
<b>Limit:</b>	a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges

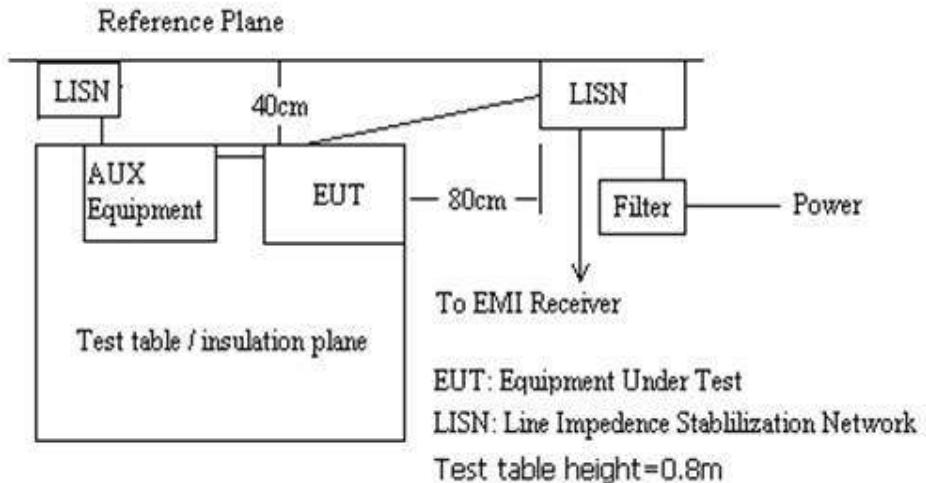
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

\* Decreases with the logarithm of the frequency.

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 5.1.1 Test Setup



### 5.1.2 Test Procedure

The Device was connected to the artificial main network via AC adapter and connect with Notebook computer (refer to section 3.3 for details). And test the EUT with activated in WIFI transmit mode.

### 5.1.3 Measurement Data

Measure the maximised peak emissions from the EUT for both the Live and Neutral Lines. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission detected.

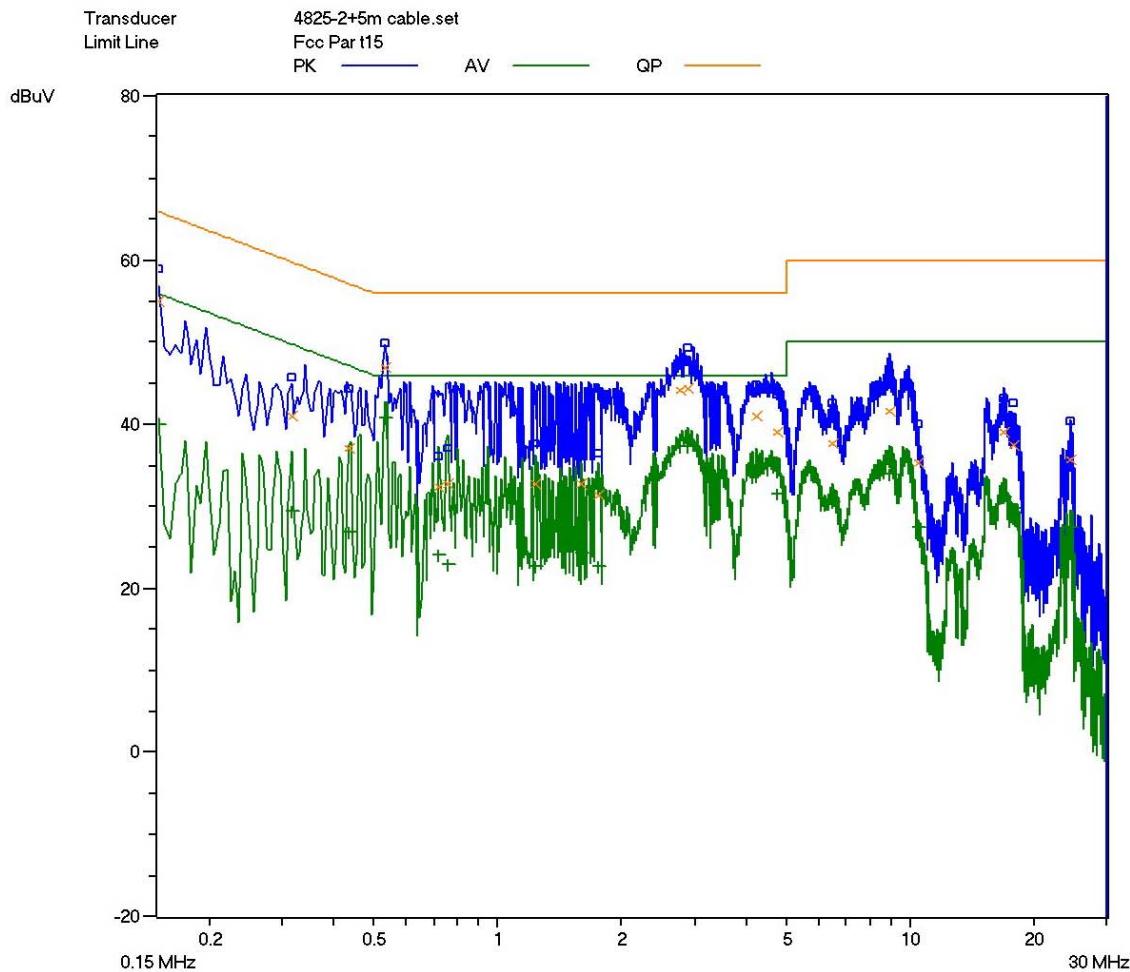
Frequency (MHz)	Line	Measured QP (dBuV)	QP Limit (dBuV)	Measured AV (dBuV)	AV Limit (dBuV)	Over Limit QP	Over Limit AV
0.1500	L	55.00	65.92	40.00	55.92	-10.92	-15.92
0.3150	L	41.00	59.81	29.30	49.81	-18.81	-20.51
0.5300	L	47.00	56.00	40.80	46.00	-9.00	-5.20
2.8750	L	44.30	56.00	37.30	46.00	-11.70	-8.70
8.9450	L	41.60	60.00	33.90	50.00	-18.40	-16.10
16.8050	L	39.00	60.00	31.20	50.00	-21.00	-18.80
0.1550	N	55.60	65.65	36.80	55.65	-10.05	-18.85
0.3150	N	41.80	59.81	28.40	49.81	-18.01	-21.41
0.5350	N	48.10	56.00	36.80	46.00	-7.90	-9.20
2.8600	N	45.40	56.00	38.20	46.00	-10.60	-7.80
4.4300	N	41.10	56.00	34.00	46.00	-14.90	-12.00
9.6950	N	39.00	60.00	30.80	50.00	-21.00	-19.20

FCC ID: UU8-MFC150US

**Live Line**

Title CE L  
Type MFC150US  
Condition 120Vac,60Hz

Frequency Range(s)	Range 1
Start Frequency	150 kHz
Stop Frequency	30 MHz
Step Frequency	5 kHz
Attenuator	Auto
Detector (Pre)	AV CISPR
IF Bandwidth (Pre)	9 kHz
Measure Time (Pre)	10 ms
Detector (Final)	QP
IF Bandwidth (Final)	9 kHz
Measure Time (Final)	1 s
Sub Ranges (Final)	20

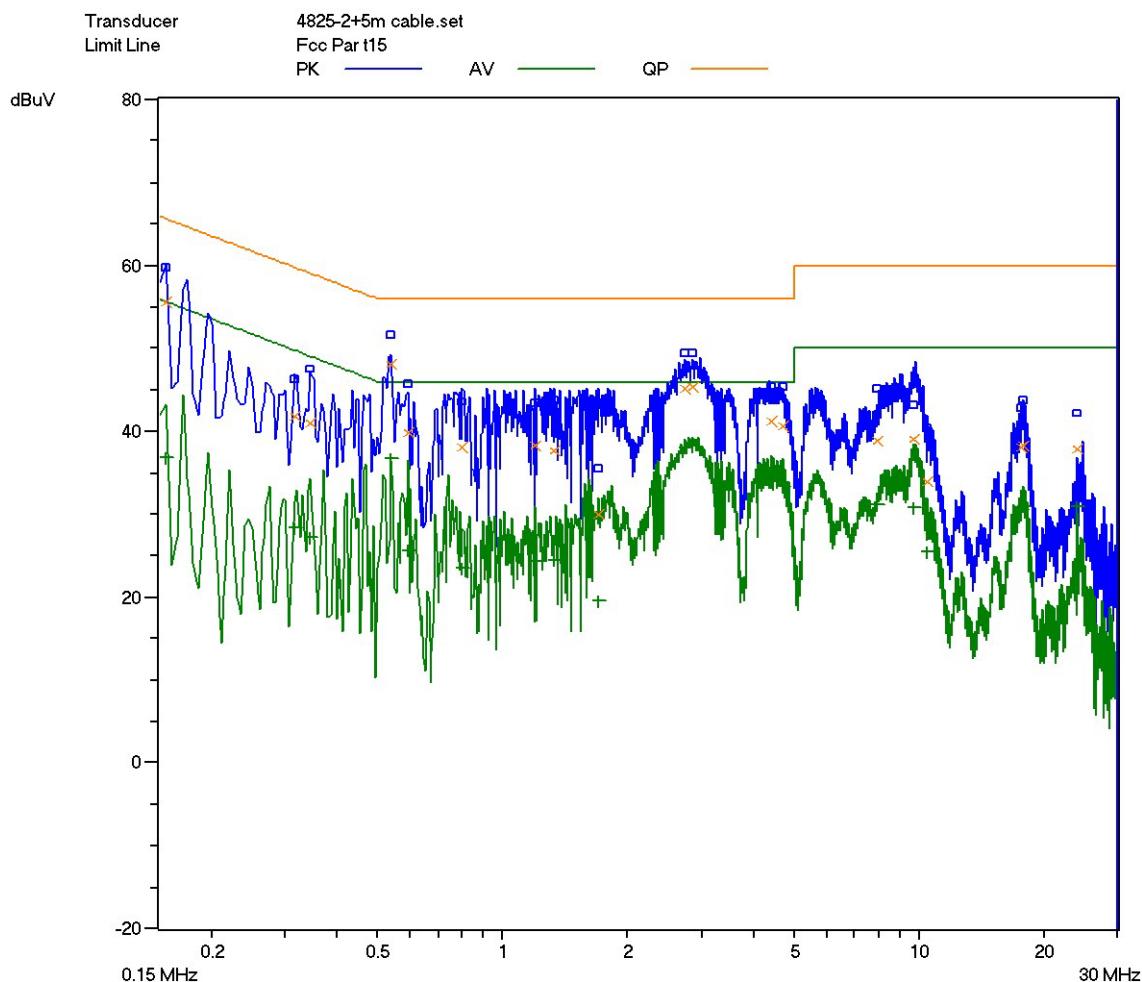


FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

**Nuetral Line**

Title	CE N
Type	MFC150US
Condition	120Vac,60Hz
Frequency Range(s)	Range 1
Start Frequency	150 kHz
Stop Frequency	30 MHz
Step Frequency	5 kHz
Attenuator	Auto
Detector (Pre)	AV CISPR
IF Bandwidth (Pre)	9 kHz
Measure Time (Pre)	10 ms
Detector (Final)	QP
IF Bandwidth (Final)	9 kHz
Measure Time (Final)	1 s
Sub Ranges (Final)	20



FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5.2 Radiated Emissions

**Test Requirement:** FCC Part15 C Section 15.247,15.209 and 15.205

**Test Method:** ANSI C63.4:2003

**Frequency Range:** 30MHz to 25GHz

**Receiver Setup:** QP Detector (RBW=120 kHz,VBW=300kHz) for 30 to 1000 MHz RE testing  
Peak Detector(RBW=1MHz,VBW=3MHz) for 1 to 25 GHz RE Peak value testing  
Peak Detector(RBW=1MHz, VBW=10Hz) for 1 to 25 GHz RE AV value testing

**Test Mode:** WIFI transmit mode

**Test Voltage:** 120Vac,60Hz

**Test Date:** 10 November, 2011 to 11 November. 2011

**Temperature:** 23°C~25°C

**Humidity:** 45%~52%

**Limit:** The field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

**Test Procedure:** Prescan on three orthogonal axes with the EUT and show the worst case measured results in the report.

Frequency of Emission (MHz)	Field Strength (microvolts/meter)	
		dB (μV/m)
30 - 88	100	40(QP)
88 - 216	150	43.5(QP)
216 - 960	200	46(QP)
960-1000	500	54(QP)
Above 1000	500	54(AV) 74(PK)

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 5.2.1 Test Setup

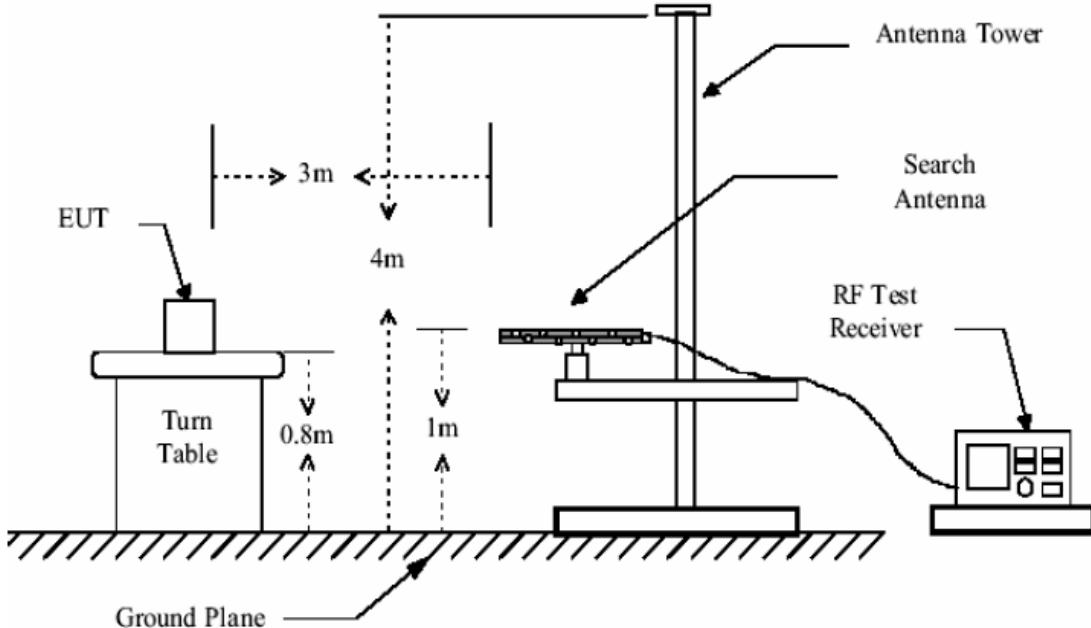


Figure1: 30MHz to 1GHz radiated emissions test setup

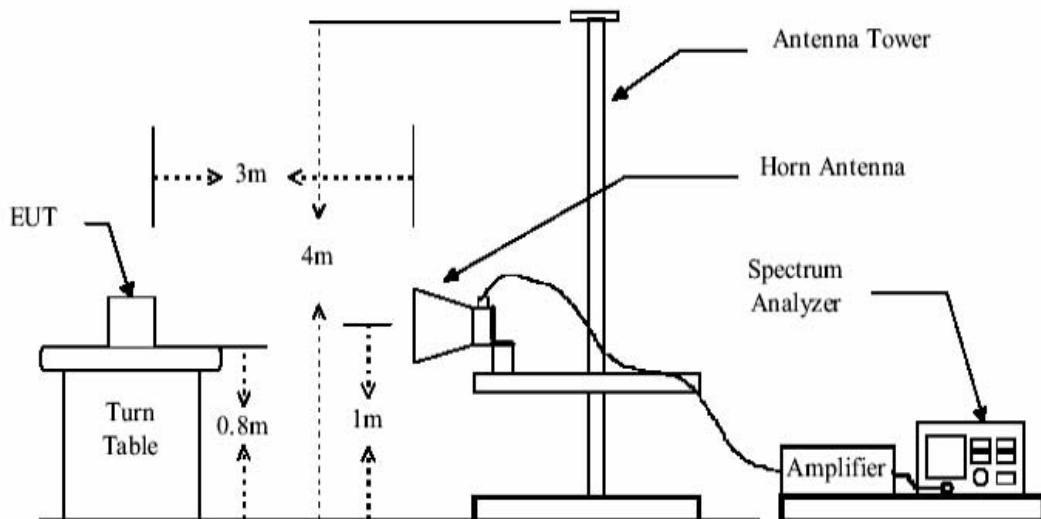


Figure 2: Above 1GHz radiated emissions test setup

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 5.2.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until all frequency measured were complete.

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain

FCC ID: UU8-MFC150US

### 5.2.3 Measurement Data

#### Radiated Emission below 1GHz

Set the WIFI model, pre-scan all channels of the WIFI with transmitting, and found out the 802.11b transmitting mode, channel 01 which it is the worst case.

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	QP Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
60.320	H	27.60	6.00	33.60	40.00	-6.40	Pass
126.540	H	25.40	9.40	34.80	43.50	-8.70	Pass
172.300	H	22.90	8.70	31.60	43.50	-11.90	Pass
479.500	H	16.30	19.00	35.30	46.00	-10.70	Pass
528.000	H	18.70	19.10	37.80	46.00	-8.20	Pass
830.600	H	9.70	22.70	32.40	46.00	-13.60	Pass
62.440	V	25.50	6.00	31.50	40.00	-8.50	Pass
105.200	V	27.50	9.40	36.90	43.50	-6.60	Pass
279.520	V	25.50	8.30	33.80	46.00	-12.20	Pass
324.600	V	15.00	15.20	30.20	46.00	-15.80	Pass
482.650	V	16.70	19.00	35.70	46.00	-10.30	Pass
754.300	V	12.80	21.80	34.60	46.00	-11.40	Pass

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

**Radiated Emission Above 1GHz**

Pre-scan all kind of data rate in WIFI with transmitting, and found the worse case which it is 11Mbps of 802.11b mode ,54Mbps of 802.11g mode with transmitting.

Transmitting mode (802.11b lowest channel=2412MHz)

**Peak Measurement**

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1296.000	H	58.86	-4.90	53.96	74.00	-20.04	Pass
4824.000	H	53.24	6.10	59.34	74.00	-14.66	Pass
7236.000	H	48.67	11.80	60.47	74.00	-13.53	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1502.000	V	57.33	-4.80	52.53	74.00	-21.47	Pass
4824.000	V	52.36	6.10	58.46	74.00	-15.54	Pass
7236.000	V	47.39	11.80	59.19	74.00	-14.81	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

**Average Measurement**

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1296.000	H	36.79	-4.90	31.89	54.00	-22.11	Pass
4824.000	H	31.28	6.10	37.38	54.00	-16.62	Pass
7236.000	H	31.33	11.80	43.13	54.00	-10.87	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1502.000	V	37.86	-4.80	33.06	54.00	-20.94	Pass
4824.000	V	31.68	6.10	37.78	54.00	-16.22	Pass
7236.000	V	30.69	11.80	42.49	54.00	-11.51	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting mode (802.11b middle channel=2437MHz)

## Peak Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1478.000	H	54.36	-4.80	49.56	74.00	-24.44	Pass
4884.000	H	55.72	6.10	61.82	74.00	-12.18	Pass
7326.000	H	51.37	11.92	63.29	74.00	-10.71	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1486.000	V	53.29	-4.80	48.49	74.00	-25.51	Pass
4884.000	V	53.67	6.10	59.77	74.00	-14.23	Pass
7326.000	V	50.27	11.92	62.19	74.00	-11.81	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

## Average Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1478.000	H	34.75	-4.80	29.95	54.00	-24.05	Pass
4884.000	H	31.25	6.10	37.35	54.00	-16.65	Pass
7326.000	H	31.23	11.92	43.15	54.00	-10.85	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1486.000	V	35.86	-4.80	31.06	54.00	-22.94	Pass
4884.000	V	32.74	6.10	38.84	54.00	-15.16	Pass
7326.000	V	31.64	11.92	43.56	54.00	-10.44	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting mode (802.11b highest channel=2462MHz)

## Peak Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1524.000	H	56.84	-4.80	52.04	74.00	-21.96	Pass
4910.000	H	53.64	6.10	59.74	74.00	-14.26	Pass
7392.000	H	50.24	12.10	62.34	74.00	-11.66	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1524.000	V	55.16	-4.80	50.36	74.00	-23.64	Pass
4910.000	V	54.37	6.10	60.47	74.00	-13.53	Pass
7392.000	V	50.91	12.10	63.01	74.00	-10.99	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

## Average Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1524.000	H	33.76	-4.80	28.96	54.00	-25.04	Pass
4910.000	H	31.29	6.10	37.39	54.00	-16.61	Pass
7386.000	H	30.45	12.10	42.55	54.00	-11.45	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1524.000	V	34.69	-4.80	29.89	54.00	-24.11	Pass
4910.000	V	31.52	6.10	37.62	54.00	-16.38	Pass
7386.000	V	30.16	12.10	42.26	54.00	-11.74	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting mode (802.11g lowest channel=2412MHz)

## Peak Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1504.000	H	55.63	-4.80	50.83	74.00	-23.17	Pass
4824.000	H	51.46	6.10	57.56	74.00	-16.44	Pass
7248.000	H	50.28	11.80	62.08	74.00	-11.92	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1504.000	V	54.78	-4.80	49.98	74.00	-24.02	Pass
4824.000	V	51.55	6.10	57.65	74.00	-16.35	Pass
7242.000	V	51.34	11.80	63.14	74.00	-10.86	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

## Average Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1504.000	H	33.24	-4.80	28.44	54.00	-25.56	Pass
4824.000	H	31.54	6.10	37.64	54.00	-16.36	Pass
7248.000	H	31.25	11.80	43.05	54.00	-10.95	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1504.000	V	34.17	-4.80	29.37	54.00	-24.63	Pass
4824.000	V	30.49	6.10	36.59	54.00	-17.41	Pass
7242.000	V	30.84	11.80	42.64	54.00	-11.36	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting mode (802.11g middle channel=2437MHz)

## Peak Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1258.000	H	56.37	-4.90	51.47	74.00	-22.53	Pass
4876.000	H	52.34	6.10	58.44	74.00	-15.56	Pass
7324.000	H	51.46	11.92	63.38	74.00	-10.62	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1258.000	V	55.76	-4.90	50.86	74.00	-23.14	Pass
4876.000	V	51.76	6.10	57.86	74.00	-16.14	Pass
7324.000	V	51.48	11.92	63.40	74.00	-10.60	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

## Average Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1258.000	H	34.13	-4.90	29.23	54.00	-24.77	Pass
4876.000	H	31.26	6.10	37.36	54.00	-16.64	Pass
7324.000	H	30.99	11.92	42.91	54.00	-11.09	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1258.000	V	35.27	-4.90	30.37	54.00	-23.63	Pass
4876.000	V	31.46	6.10	37.56	54.00	-16.44	Pass
7324.000	V	30.72	11.92	42.64	54.00	-11.36	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting mode (802.11g highest channel=2462MHz)

## Peak Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	PEAK Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1258.000	H	56.88	-4.80	52.08	74.00	-21.92	Pass
4924.000	H	50.16	6.10	56.26	74.00	-17.74	Pass
7386.000	H	48.67	12.10	60.77	74.00	-13.23	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1258.000	V	57.39	-4.80	52.59	74.00	-21.41	Pass
4924.000	V	51.24	6.10	57.34	74.00	-16.66	Pass
7386.000	V	49.66	12.10	61.76	74.00	-12.24	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

## Average Measurement

Frequency (MHz)	Antenna Polarity	Reading (dBuV/m)	Ant./CL/ Amp.CF (dB)	Measured Level (dBuV/m)	AV Limit (dBuV/m)	Over Limit(dB)	Pass /Fail
1258.000	H	35.67	-4.80	30.87	54.00	-23.13	Pass
4924.000	H	32.24	6.10	38.34	54.00	-15.66	Pass
7386.000	H	31.55	12.10	43.65	54.00	-10.35	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1258.000	V	34.37	-4.80	29.57	54.00	-24.43	Pass
4924.000	V	31.59	6.10	37.69	54.00	-16.31	Pass
7386.000	V	31.24	12.10	43.34	54.00	-10.66	Pass
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

FCC ID: UU8-MFC150US

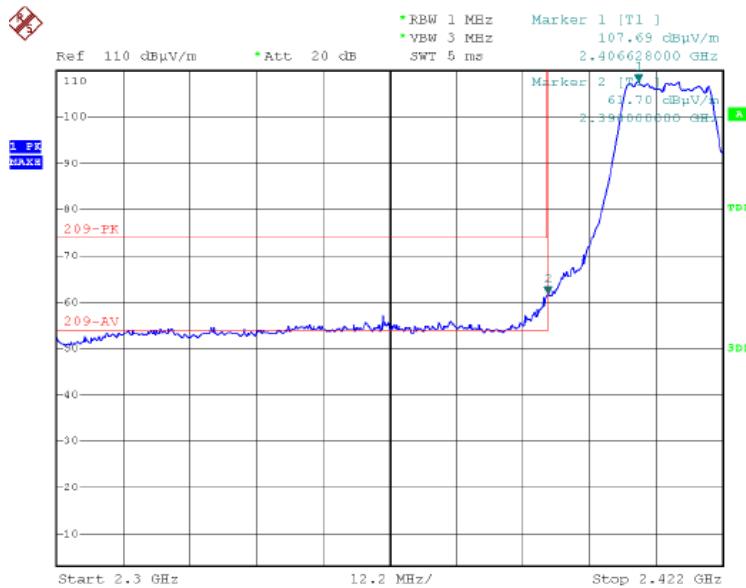
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

**Band Edge and Restricted band (Radiated measurement)**

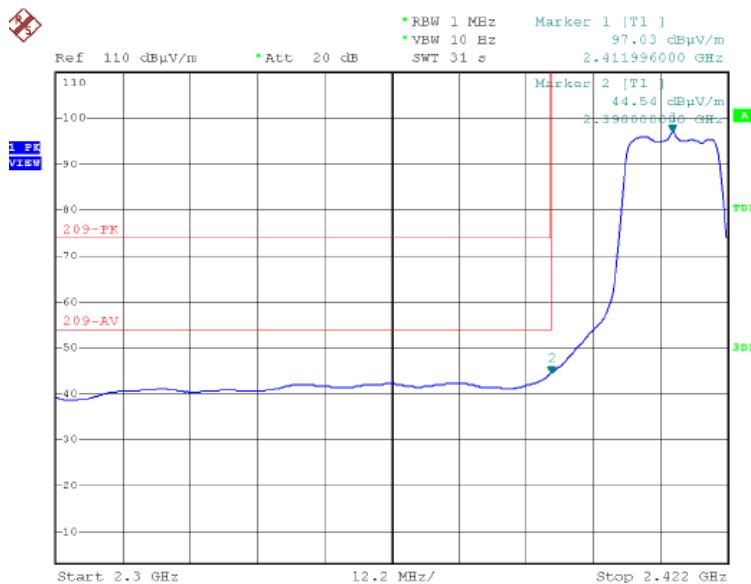
Set the WIFI mode, pre-scan all channels of the WIFI, and found the 802.11g mode in lowest and highest channel which they were worse case.

Transmitting with 802.11g mode (Lowest channel=2412MHz)

Peak Measurement in Horizontal polarization



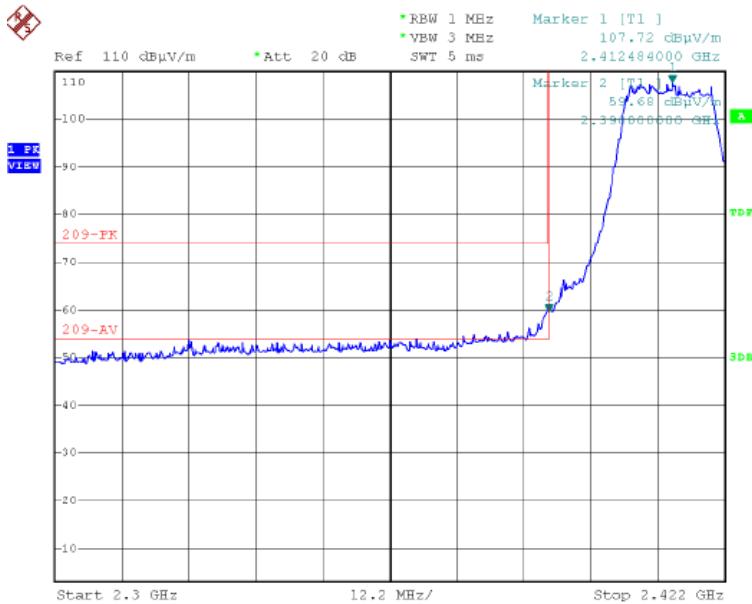
Average Measurement in Horizontal polarization



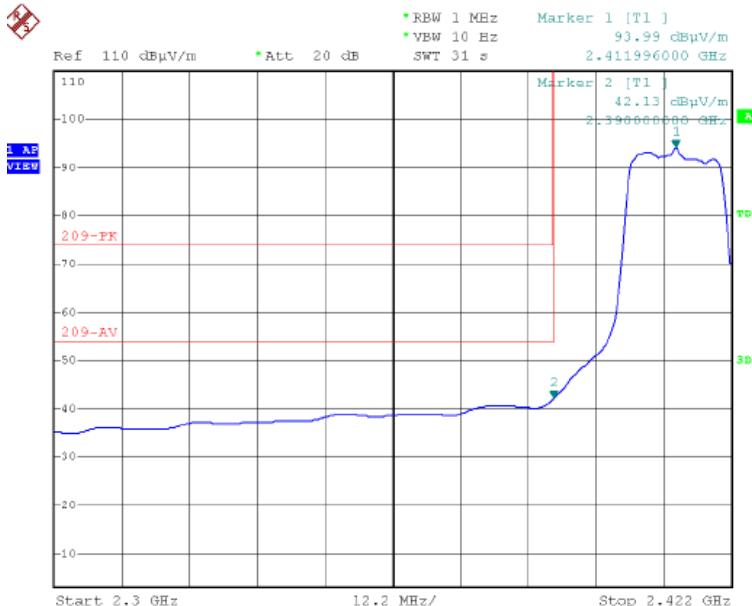
FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## Peak Measurement in Vertical polarization



## Average Measurement in Vertical polarization

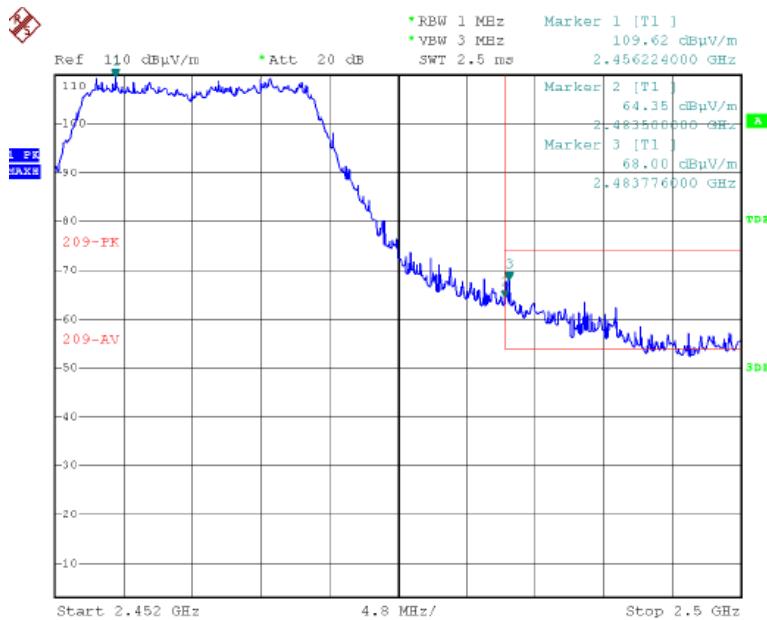


FCC ID: UU8-MFC150US

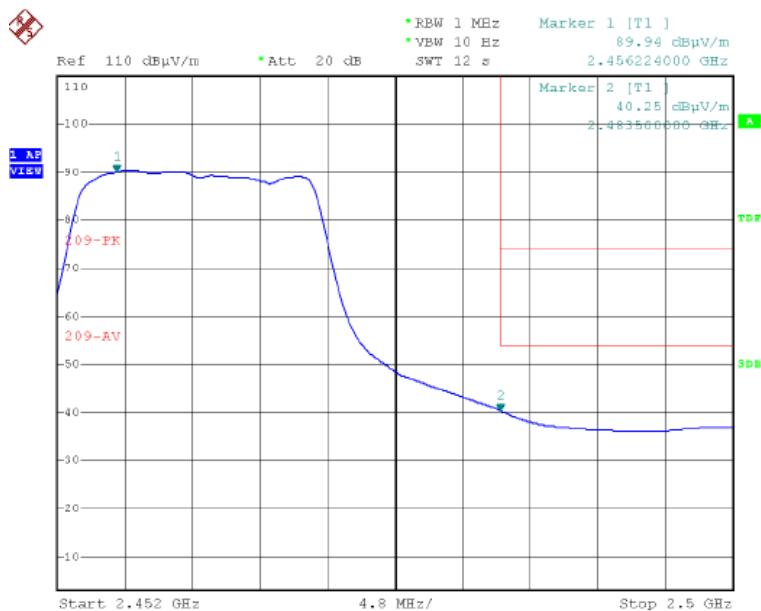
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Transmitting with 801.11g mode (Highest channel=2462MHz)

Peak Measurement in Horizontal polarization



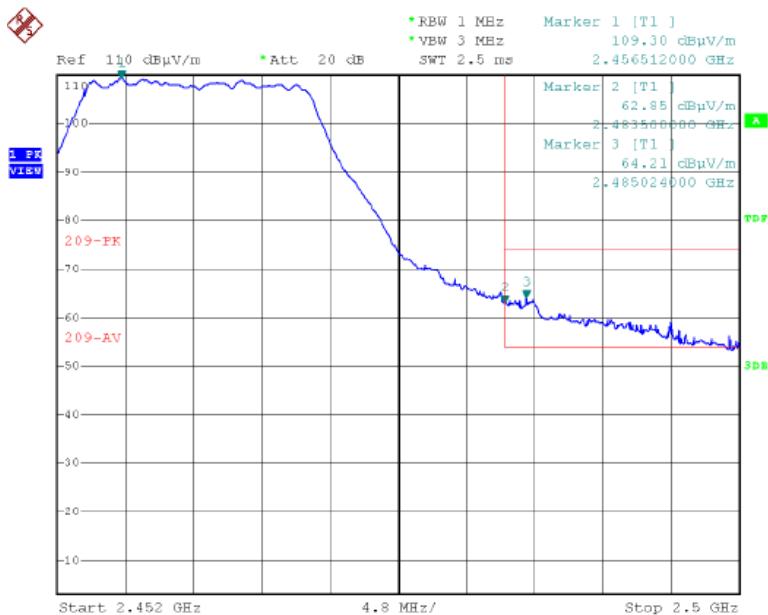
Average Measurement in Horizontal polarization



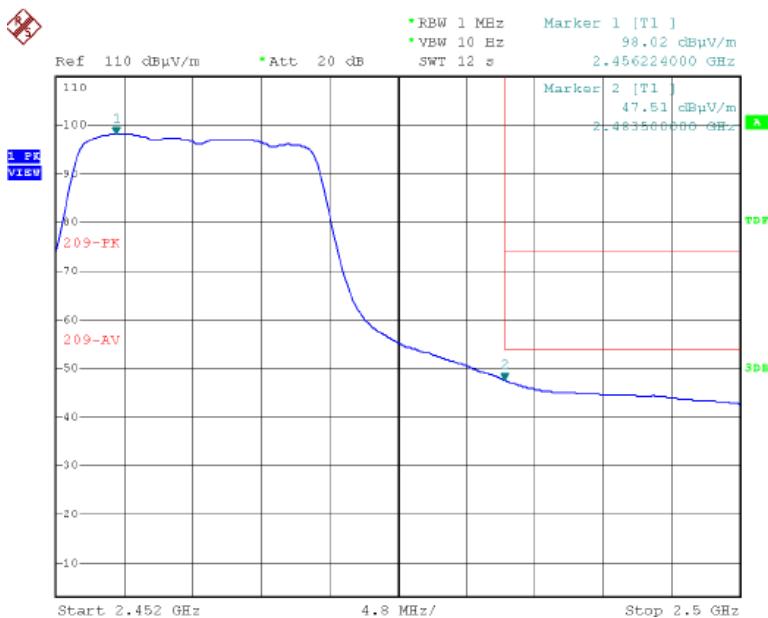
FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## Peak Measurement in Vertical polarization



## Average Measurement in Vertical polarization



FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## Remark 1:

No any other emissions level which are attenuated less than 20dB below the limit According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part. Hence there no other emissions have been reported.

## Remark 2:

- 1). As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.
- 2). The test only perform the EUT in transmitting status since the test frequencies were over 1GHz only required transmitting status.
- 3) Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates and antenna ports, and found the EUT worse case mode: 802.11b (11MHz), 802.11g (54MHz).
- 4) For this intentional radiator operates below 25 GHz. The spectrum shall be investigated to the tenth harmonic of the highest fundamental frequency. And above the 4th harmonic of this intentional radiator, the disturbance is very low. So the test result only displays to 4th harmonic.

## Remark 3:

Section 15.205 Restricted bands of operation.

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
10.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41	322 - 335.4		

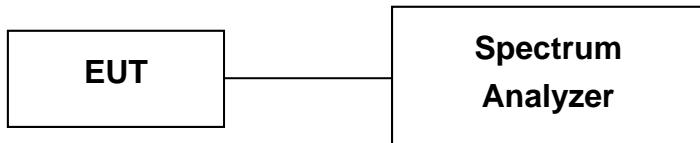
All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

FCC ID: UU8-MFC150US

### 5.3 Maximum Peak Output Power

**Test Requirement:** FCC 15.247(b)  
**Test Method:** ANSI C63.4:2003 and KDB558074.  
**Method of Measurement:** The EUT was setup to ANSI C63.4, 2003, tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.  
**Select test data rate:** 11Mbps(802.11b) & 54Mbps(802.11g)  
**Detector:** RBW=1 MHz, VBW=3 MHz (Peak detector)  
**Test Mode:** WIFI transmitting mode  
**Test Voltage:** Pretest the EUT with voltage  $120 \pm 15\%$  Vac, 60Hz; and found out at 120Vac, 60Hz is the worst case.  
**Test Date:** 13 November, 2011  
**Temperature:** 25°C  
**Humidity:** 53%  
**Limit:** The Limit of Maximum Peak Output Power Measurement is 30dBm.

#### 5.3.1 Test Setup



#### 5.3.2 Test Procedure

Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates (802.11b 1/2/5.5/11Mbps and 802.11g 6/9/12/18/24/36/48/54Mbps ).  
Following channel(s) was (were) selected for the final test as listed below.  
802.11b 11Mbps and 802.11g 54Mbps

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 5.3.3 Measurement Data

For EUT communicating with 802.11b Mode

Chanel Frequency (GHz)	Peak Output Power(dBm)	Cable Loss (dB)	Power level(dBm)	Limit (dBm)	Over Limit (dB)
2.412	11.12	0.5	11.62	30.00	-18.38
2.437	11.36	0.5	11.86	30.00	-18.14
2.462	11.53	0.5	<b>12.03</b>	30.00	-17.97

For EUT communicating with 802.11g Mode

Chanel Frequency (GHz)	Peak Output Power(dBm)	Cable Loss (dB)	Power level(dBm)	Limit (dBm)	Over Limit (dB)
2.412	9.97	0.5	10.47	30.00	-19.53
2.437	10.50	0.5	11.00	30.00	-19.00
2.462	10.75	0.5	<b>11.25</b>	30.00	-18.75

**Test result: The unit does meet the requirements.**

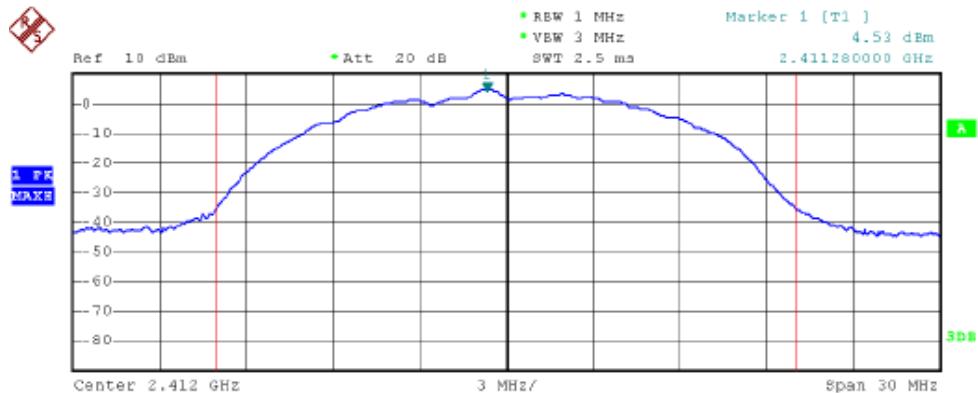
**Test result plot as follows:**

**The EUT communicating with 802.11b Mode**

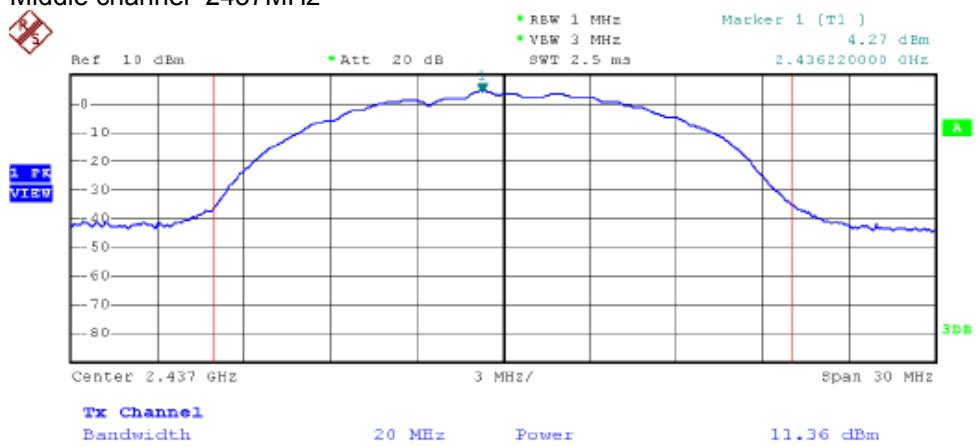
FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

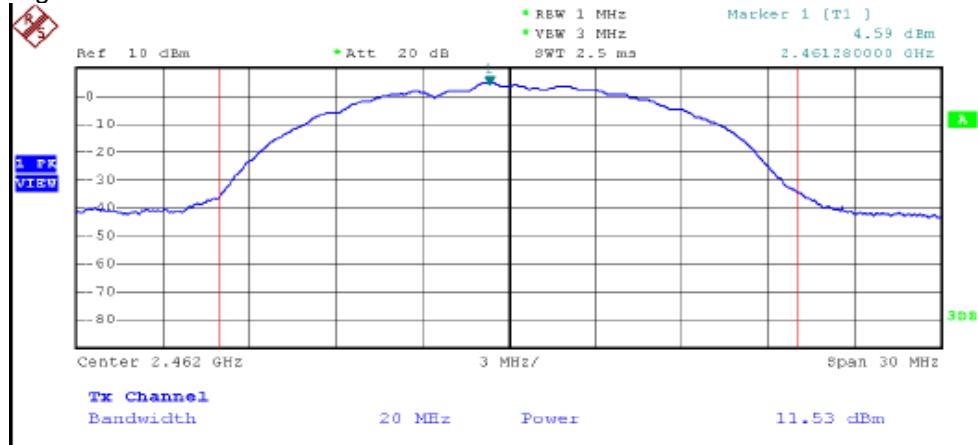
Lowest channel=2412MHz



Middle channel=2437MHz



Highest channel=2462MHz

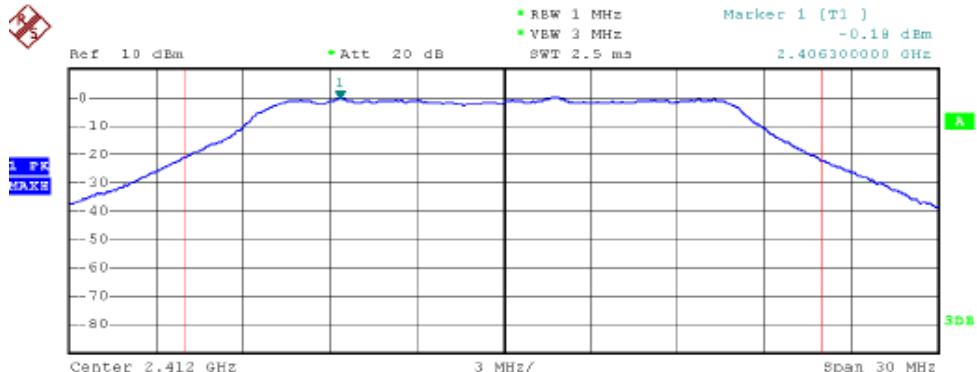


The EUT communicating with 802.11g Mode

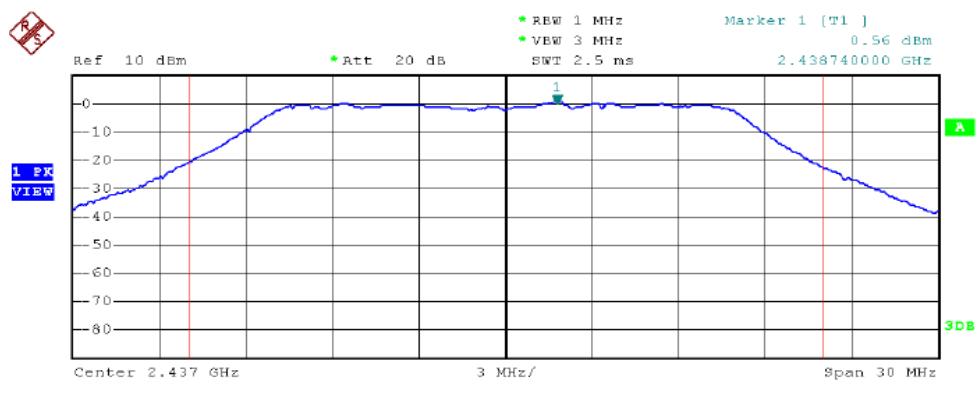
FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

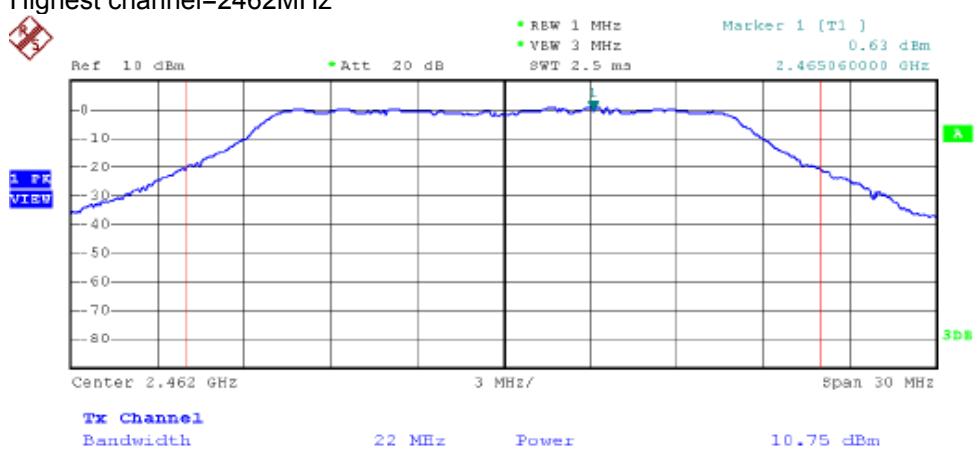
Lowest channel=2412MHz



Middle channel=2437MHz



Highest channel=2462MHz



FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5.4 6dB Occupied Bandwidth

**Test Requirement:** FCC 15.247(b)

**Test Method:** ANSI C63.4:2003 and KDB558074.

**Method of Measurement:** The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer. The 6 dB bandwidth isdefined as the total spectrum the power of which is higher than peak power minus 6 dB. Analyzer andthe attached plot were taken. The EUT was setup to ANSI C63.4, 2003, tested to DTS test procedureof Oct 2002 KDB558074 for compliance with FCC 47CFR 15.247 requirements.

**Select test data rate:** 11Mbps(802.11b) & 54Mbps(802.11g)

**Detector:** RBW=100kHz,VBW=300 kHz (Peak detector)

**Test Mode:** WIFI transmitting mode

**Test Voltage:** 120Vac,60Hz

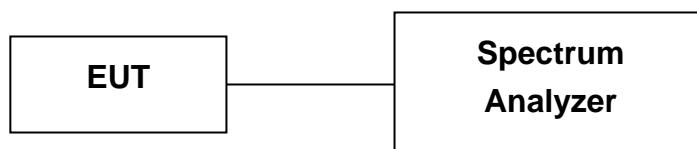
**Test Date:** 12 November, 2011

**Temperature:** 24°C

**Humidity:** 52%

**Limit:** The minimum 6 dB bandwidth shall be at least 500 kHz.

### 5.4.1 Test Setup



### 5.4.2 Test Procedure

Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates (802.11b 1/2/5.5/11Mbps and 802.11g 6/9/12/18/24/36/48/54Mbps). Following channel(s) was (were) selected for the final test as listed below.

802.11b 11Mbps and 802.11g 54Mbps

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

### 5.4.3 Measurement Data

For EUT communicating with 802.11b Mode

Chanel Frequency (GHz)	6 dB Bandwidth (MHz)	Minimun Limit (MHz)	Pass/Fail
2.412	10.32	0.5	Pass
2.437	10.38	0.5	Pass
2.462	11.04	0.5	Pass

For EUT communicating with 802.11g Mode

Chanel Frequency (GHz)	6 dB Bandwidth (MHz)	Minimun Limit (MHz)	Pass/Fail
2.412	16.50	0.5	Pass
2.437	16.56	0.5	Pass
2.462	16.50	0.5	Pass

**Test result: The unit does meet the requirements.**

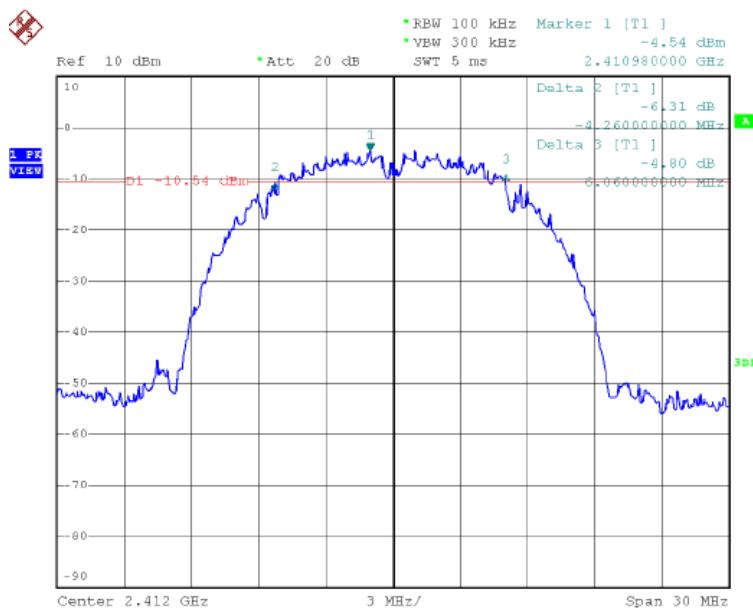
**Test result plot as follows:**

FCC ID: UU8-MFC150US

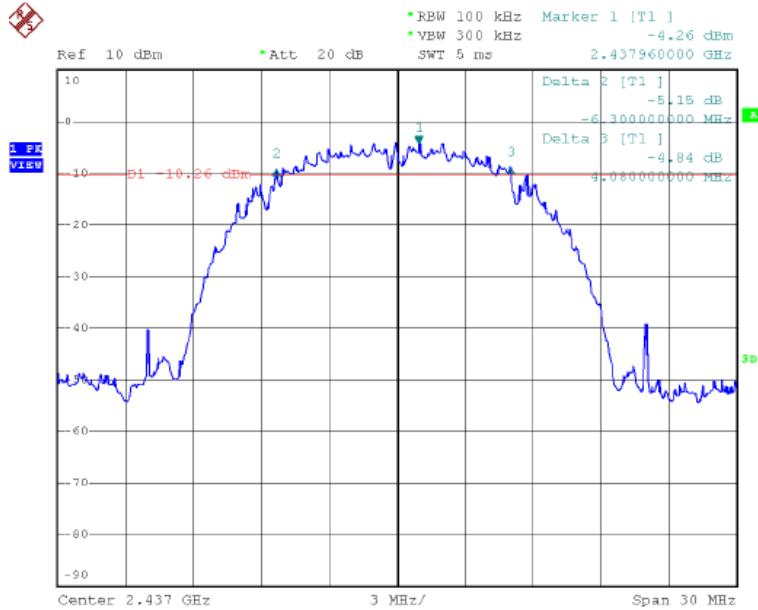
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

**The EUT communicating with 802.11b Mode**

Lowest channel=2412MHz



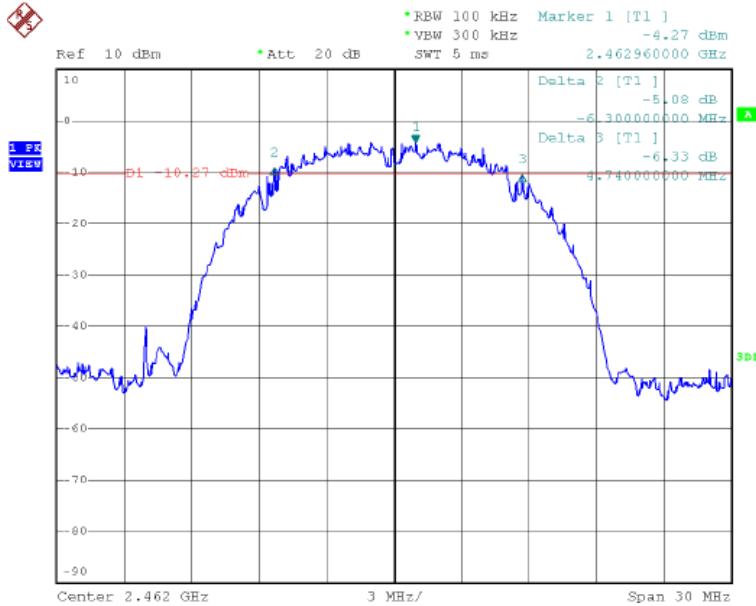
Middle channel=2437MHz



FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Highest channel=2462MHz

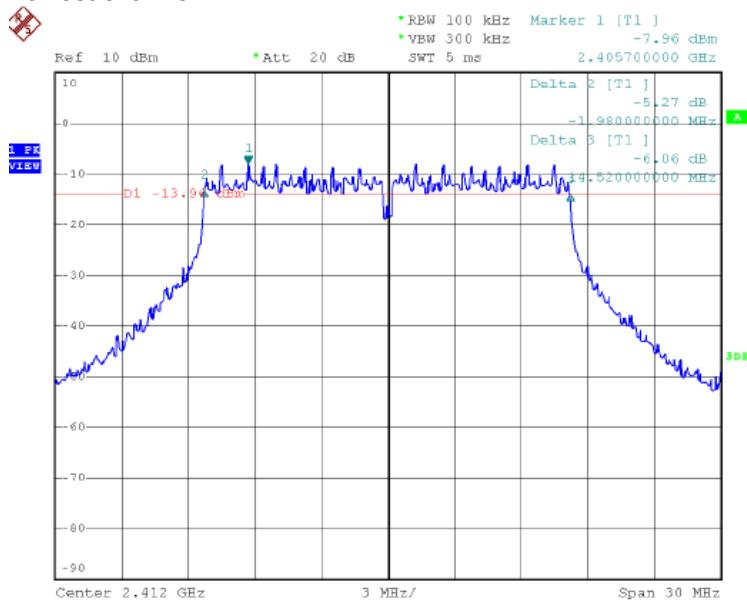


FCC ID: UU8-MFC150US

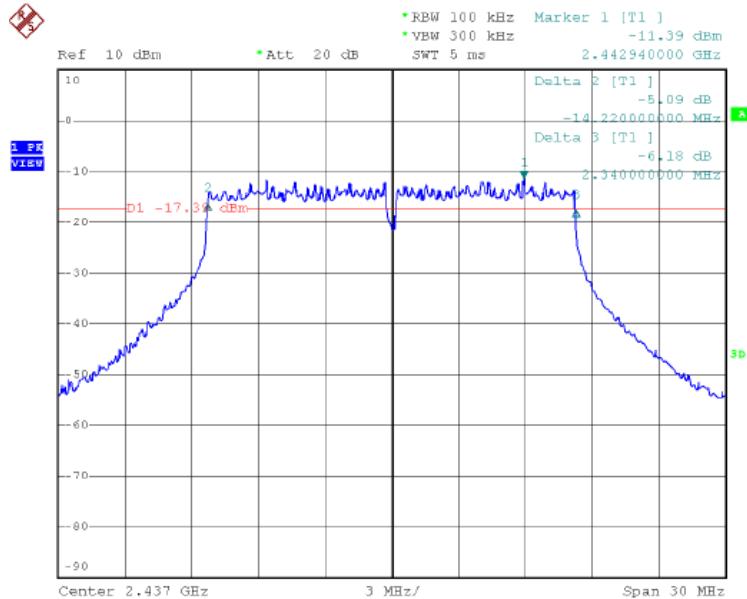
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

**The EUT communicating with 802.11g Mode**

Lowest channel=2412MHz

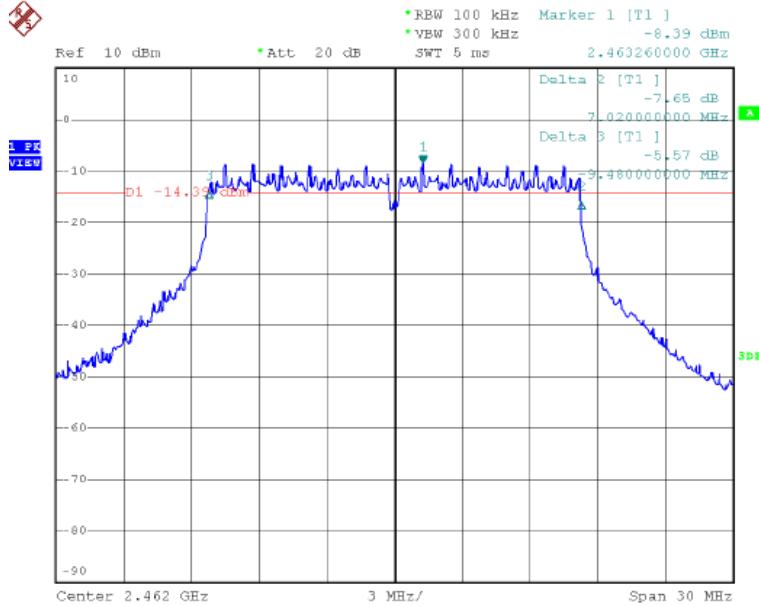


Middle channel=2437MHz

**FCC ID: UU8-MFC150US**

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Highest channel=2462MHz



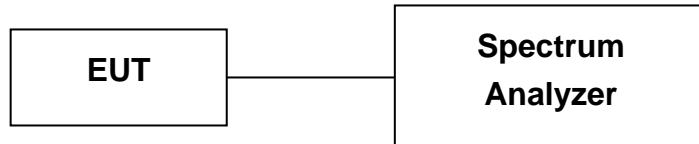
FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5.5 Band Edges and Conducted Spurious Emissions Measurement

<b>Test Requirement:</b>	FCC Part15 C Section 15.247(d)
<b>Test Method:</b>	ANSI C63.4; FCC Part15 C Section 15.247: KDB Publication No. 558074 for DTS
<b>Select test data rate:</b>	11Mbps(802.11b) & 54Mbps(802.11g)
<b>Detector:</b>	RBW=100kHz,VBW=300 KHz (Peak detector)
<b>Test Mode:</b>	WIFI transmitting mode
<b>Test Voltage:</b>	120Vac,60Hz
<b>Test Date:</b>	13 November, 2011
<b>Temperature:</b>	25°C
<b>Humidity:</b>	52%
<b>Limit:</b>	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

### 5.5.1 Test Setup



### 5.5.2 Test Procedure

Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates (802.11b 1/2/5.5/11Mbps and 802.11g 6/9/12/18/24/36/48/54Mbps) . Following channel(s) was (were) selected for the final test as listed below.

802.11b 11Mbps and 802.11g 54Mbps

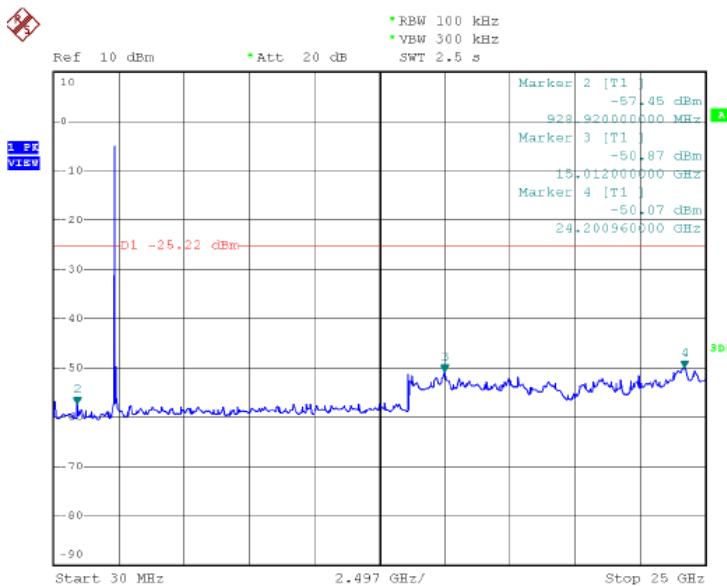
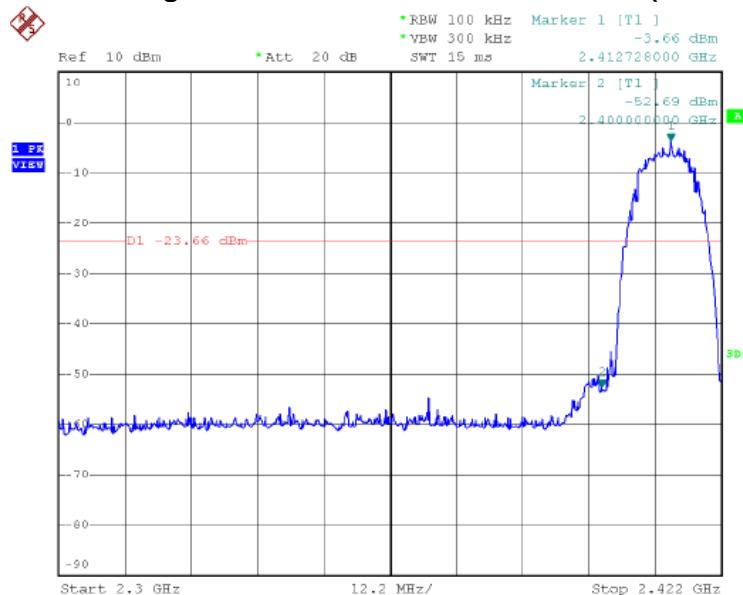
### 5.5.3 Measurement Data

**Test result: The unit does meet the requirements.**

**Test result plot as follows:**

FCC ID: UU8-MFC150US

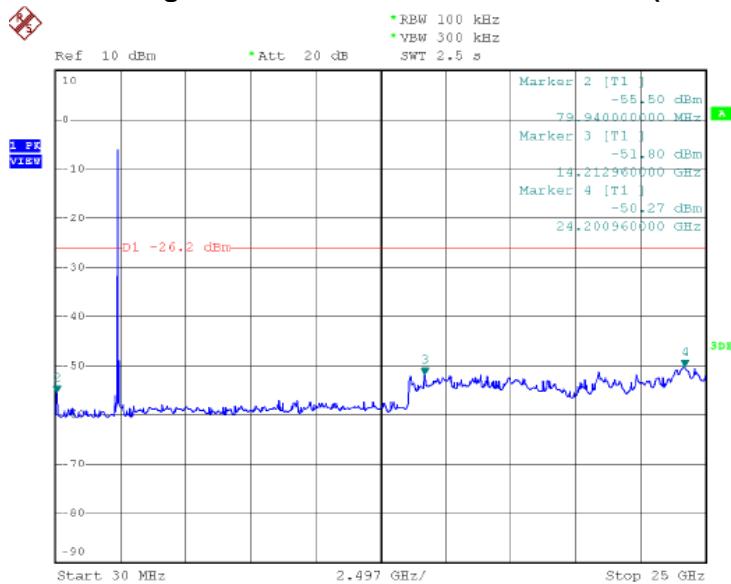
## Transmitting mode in lowest channel=2412MHz (802.11b)



FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

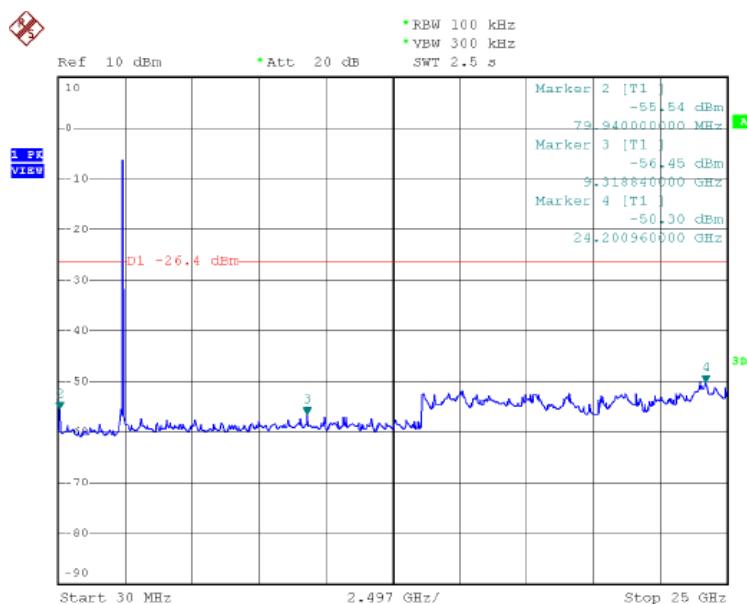
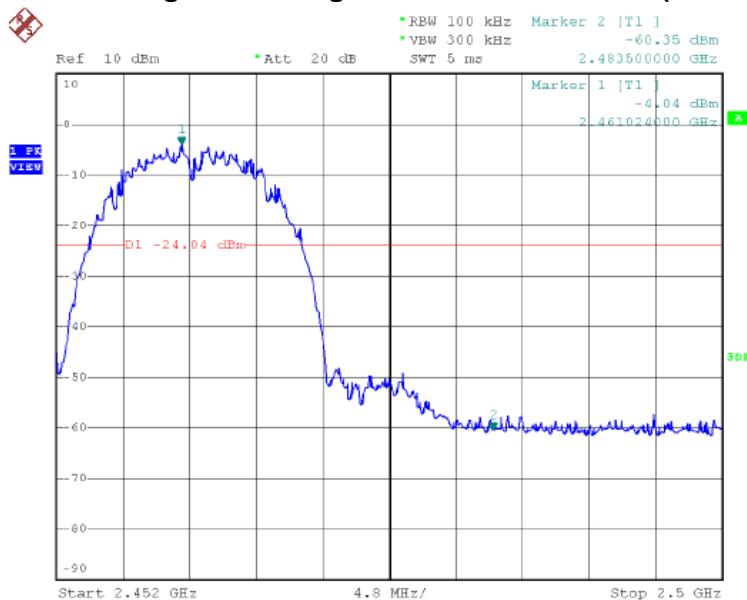
## Transmitting mode in middle channel=2437MHz (802.11b)



FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

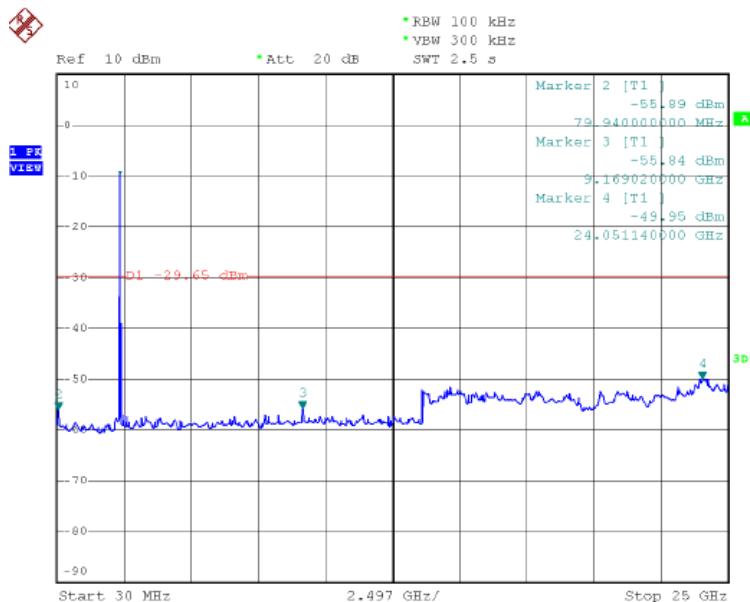
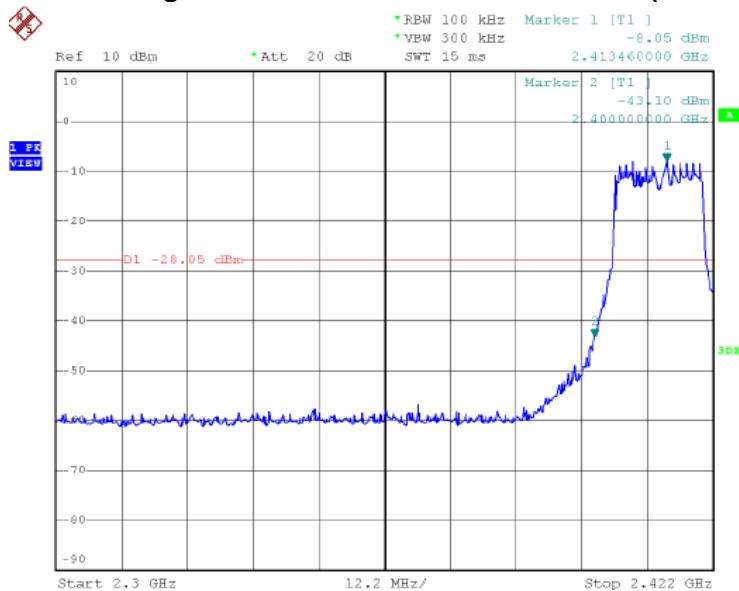
## Transmitting mode in highest channel=2462MHz (802.11b)



FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

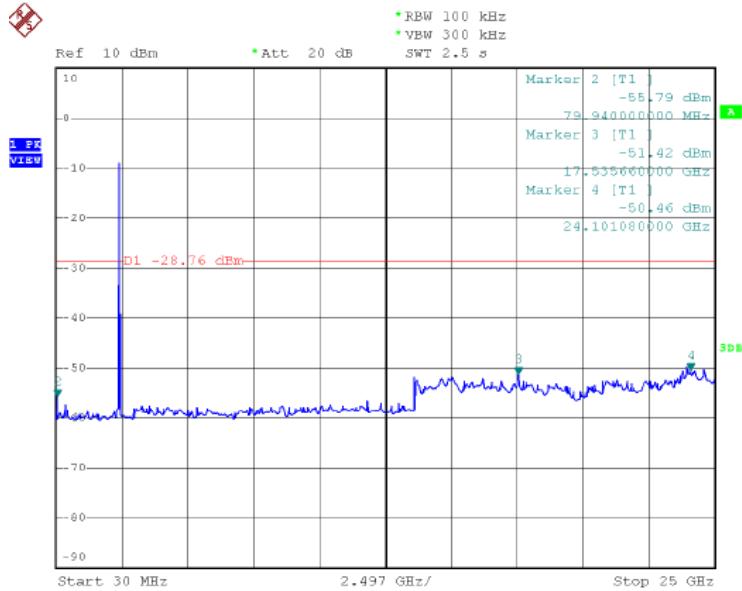
## Transmitting mode in lowest channel=2412MHz (802.11g)



FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

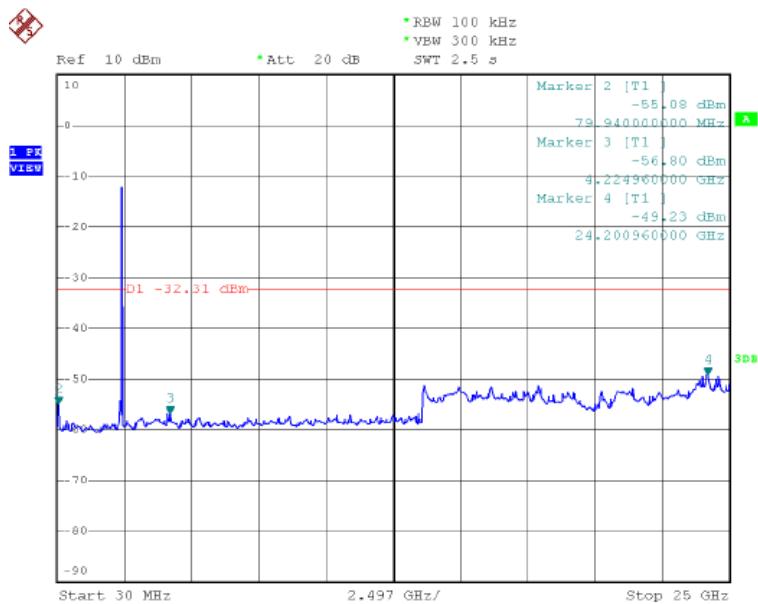
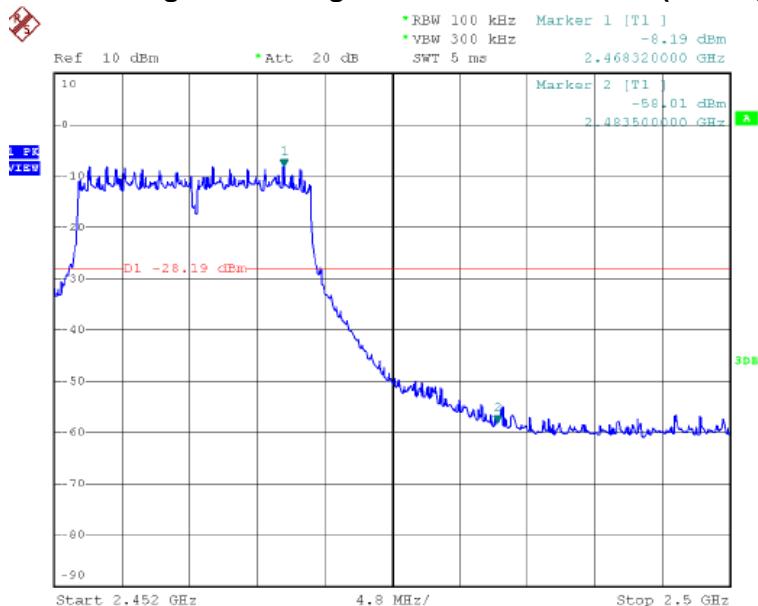
## Transmitting mode in middle channel=2437MHz (802.11g)



FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## Transmitting mode in highest channel=2462MHz (802.11g)



## 5.6 Power Spectral Density Measurement

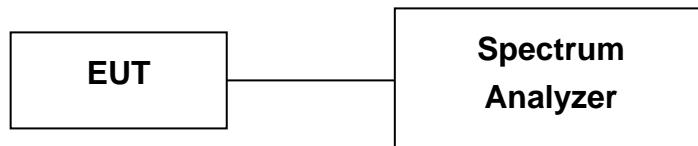
Test Requirement: FCC Part15 C Section 15.247(d)

FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

<b>Test Method:</b>	ANSI C63.4; FCC Part15 C Section 15.247: KDB Publication No. 558074 for DTS
<b>Select test data rate:</b>	11Mbps(802.11b) & 54Mbps(802.11g)
<b>Detector:</b>	RBW=3KHz,VBW=10 KHz (Peak detector)
<b>Test Mode:</b>	WIFI transmitting mode
<b>Test Voltage:</b>	120Vac,60Hz
<b>Test Date:</b>	12 Novembere, 2011
<b>Temperature:</b>	26 °C
<b>Humidity:</b>	55%
<b>Limit:</b>	the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission

### 5.6.1 Test Setup



### 5.6.2 Test Procedure

Pre-Scan has been conducted to determine the worst-case mode from all possible Combinations between available modulations, data rates (802.11b 1/2/5.5/11Mbps and 802.11g 6/9/12/18/24/36/48/54Mbps). Following channel(s) was (were) selected for the final test as listed below.

802.11b 11Mbps and 802.11g 54Mbps

### 5.6.3 Measurement Data

For EUT communicating with 802.11b Mode

FCC ID: UU8-MFC150US

Chanel Frequency (GHz)	Power Spectral Density (dBm)	Cable Loss (dB)	Power Spectral Density level (dBm)	Limit (dBm)	Over Limit (dB)
2.412	-15.24	0.5	-14.74	8.00	-22.74
2.437	-15.74	0.5	-15.24	8.00	-23.24
2.462	-17.94	0.5	-17.44	8.00	-25.44

For EUT communicating with 802.11g Mode

Chanel Frequency (GHz)	Power Spectral Density (dBm)	Cable Loss (dB)	Power Spectral Density level (dBm)	Limit (dBm)	Over Limit (dB)
2.412	-24.81	0.5	-24.31	8.00	-32.31
2.437	-25.51	0.5	-25.01	8.00	-33.01
2.462	-25.18	0.5	-24.68	8.00	-32.68

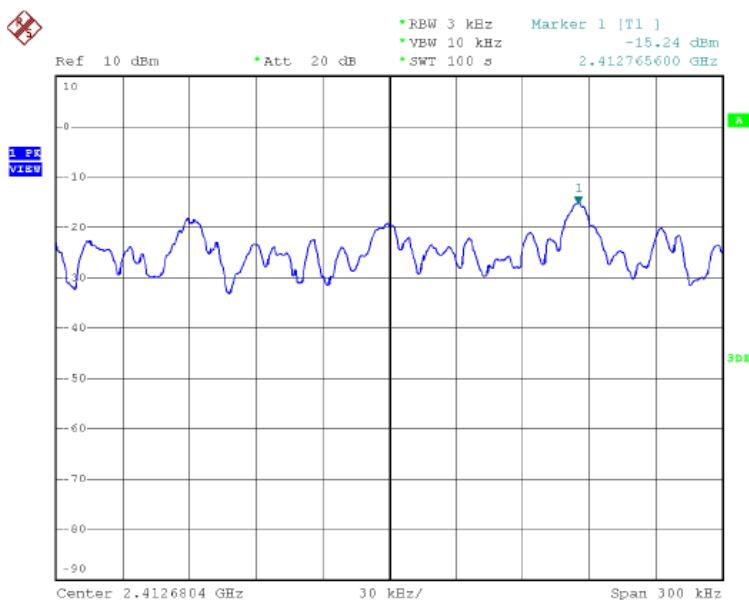
**Test result: The unit does meet the requirements.**

**Test result plot as follows:**

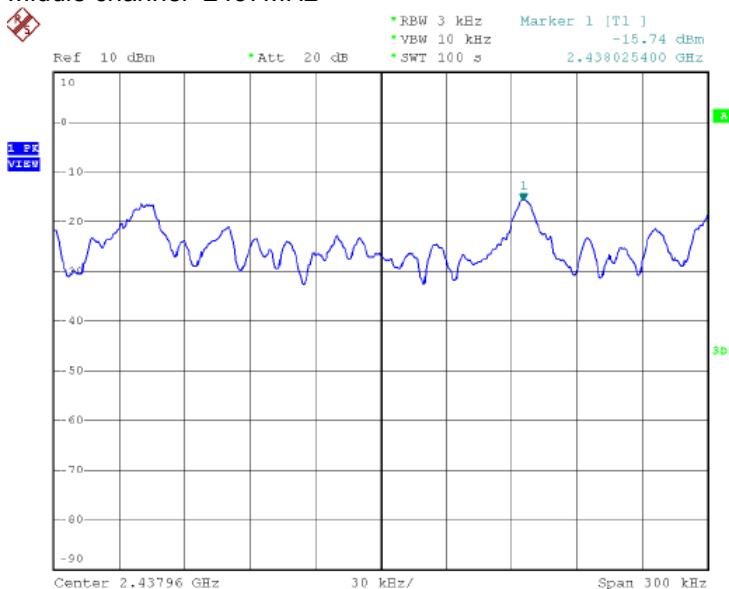
**The EUT communicating with 802.11b Mode**  
Lowest channel=2412MHz

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



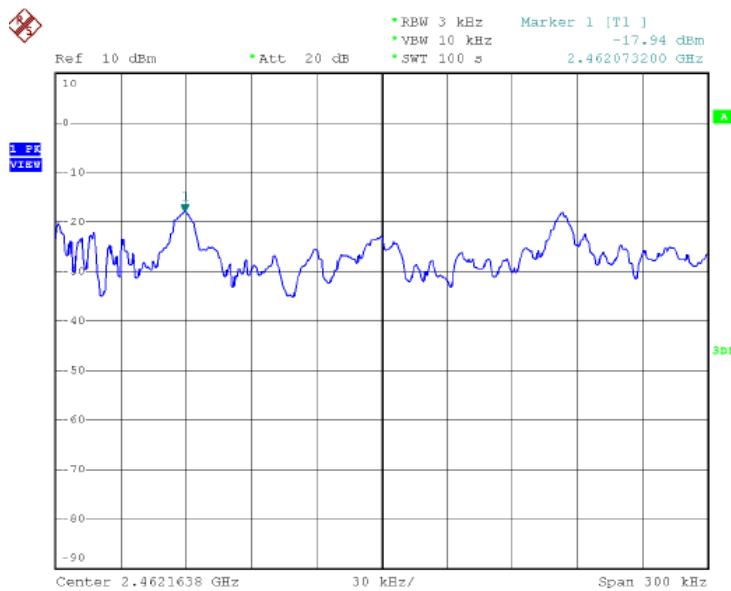
Middle channel=2437MHz



Highest channel=2462MHz

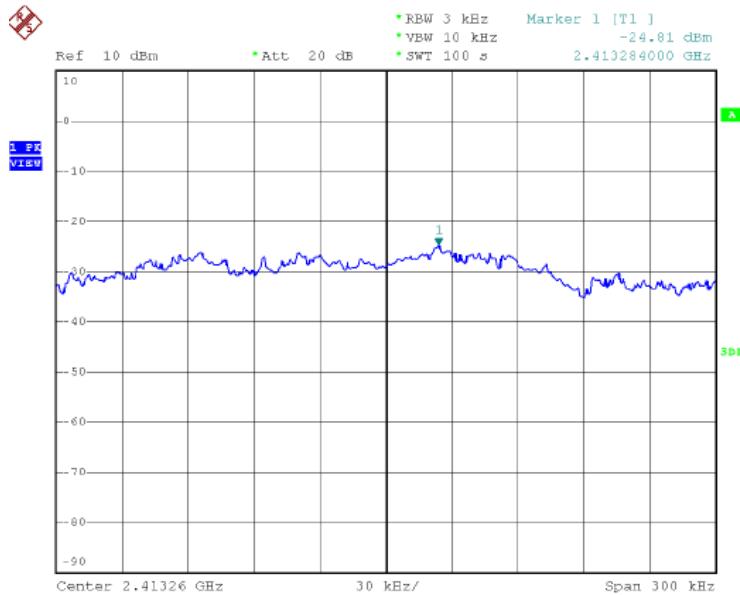
FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

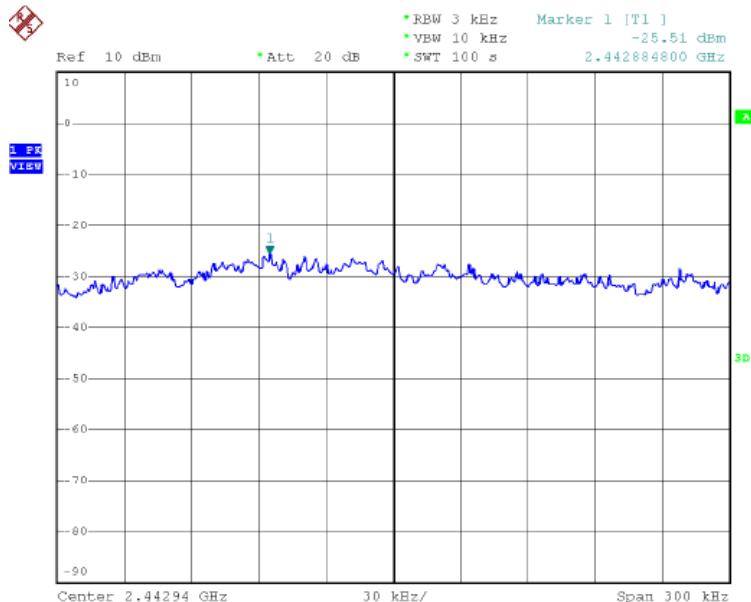
**The EUT communicating with 802.11g Mode****FCC ID: UU8-MFC150US**

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

Lowest channel=2412MHz



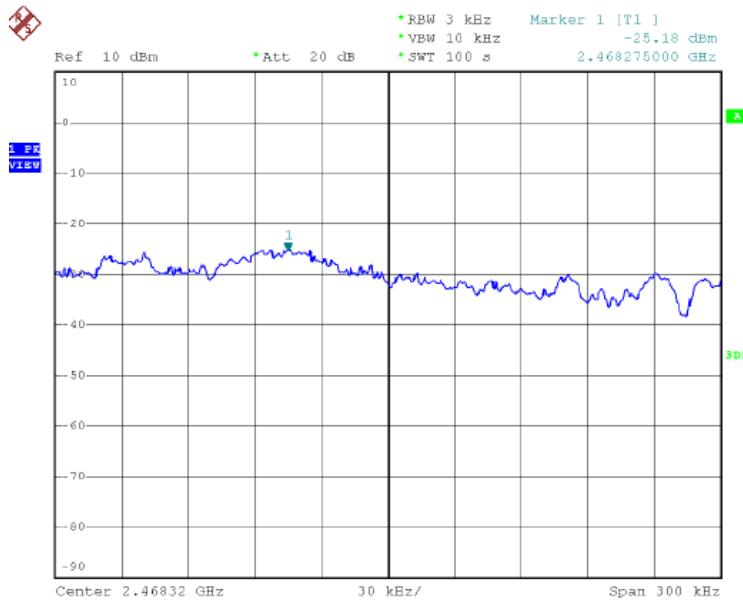
Middle channel=2437MHz



Highest channel=2462MHz

FCC ID: UU8-MFC150US

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotech.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotech.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebotek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebotek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5.7 Antenna Requirement

### EUT Antenna

#### Standard requirement

15.203 requirement:

For intentional device. According to 15.203. an intentional radiator shall be designed to Ensure that no antenna other than that furnished by the responsible party shall be used with the device.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz bands that are used exclusively for fixed. Point-to-point operations November employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

### EUT Antenna

The WIFI antenna is printed in the PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

## 5.8 RF Exposure Compliance

### Standard requirement

15.247(b)(4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section. if transmitting antennas of directional gain greater than 6 dBi are used. the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1). (b)(2). and (b)(3) of this section. as appropriate. by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RSS-102 Section 2.5.1 requirement:

above 2.2 GHz and up to 3 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 20 mW for general public use and 100 mW for controlled use;

### EUT RF Exposure

The Max Conducted Peak Output Power is **12.03dBm(15.96mW)** in the Highest channel (2.462GHz);

The best case gain of the antenna is 0dBi.

calculate the EIRP test result:

EIRP= 15.96mW ①

SAR requirement:

$S = 60 / f(\text{GHz}) = 60 / 2.462 = 24.37\text{mW}$  ② ;

① < 20mW < ②.

So the SAR report is not required.

FCC ID: UU8-MFC150US

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.ebtek.cn> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.ebtek.cn>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."