APPLICATION CERTIFICATION FCC Part 15C On Behalf of HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

150M wireless usb adapter Model No.: WU106A

FCC ID: YXA-WU106AM

Prepared for : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Address : No. 07# LangSha Road, SongGang, BaoAn, ShenZhen

GuangDong, China

Prepared by : ACCURATE TECHNOLOGY CO., LTD

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Report Number : ATE20111342
Date of Test : July 12-16, 2011
Date of Report : July 16, 2011

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Test Report Certification

Applicant : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

EUT Description : 150M wireless usb adapter

(A) MODEL NO.: WU106A

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 5V

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test:	July 12-16, 2011
Prepared by :	Apple Lu
	(Engineer)
Approved & Authorized Signer :	(Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : 150M wireless usb adapter

Model Number : WU106A

Frequency Band : 2412-2462MHz

Number of Channels : 11

Antenna Gain : 0dBi

Power Supply : DC 5V (USB terminal)

Data Rate : IEEE 802.11b: 11Mbps

IEEE 802.11g: 54Mbps

IEEE 802.11n: 150Mbps

Applicant : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Address : No. 07# LangSha Road, SongGang, BaoAn, ShenZhen

GuangDong, China

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Address : No. 07# LangSha Road, SongGang, BaoAn, ShenZhen

GuangDong, China

Date of sample received: July 12, 2011

Date of Test : July 12-16, 2011

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42 dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 15, 2012
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 15, 2012
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 15, 2012
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 15, 2012
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2012
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 15, 2012
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 15, 2012
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 15, 2012

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

The mode is used: 802.11b Transmitting mode

Low Channel: 2412MHz Middle Channel: 2437MHz High Channel: 2462MHz

802.11g Transmitting mode

Low Channel: 2412MHz Middle Channel: 2437MHz High Channel: 2462MHz

802.11n Transmitting mode

Low Channel: 2412MHz Middle Channel: 2437MHz High Channel: 2462MHz

3.2. Configuration and peripherals

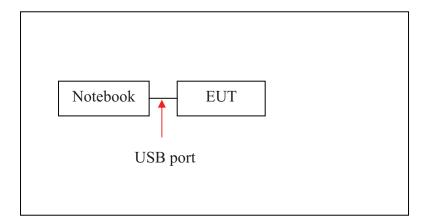


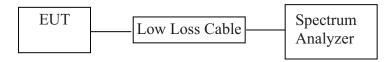
Figure 1 Setup: Transmitting mode

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 6DB BANDWIDTH MEASUREMENT

5.1.Block Diagram of Test Setup



(EUT: 150M wireless usb adapter)

5.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1.150M wireless usb adapter (EUT)

Model Number : WU106A Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2. Turn on the power of all equipment.
- 5.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462MHz. We select 2412MHz, 2437MHz, 2462MHz TX frequency to transmit.

5.5.Test Procedure

- 5.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 5.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.
- 5.5.3. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.6. Test Result

PASS.

Date of Test:July 13, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:TXTest Engineer:Pei

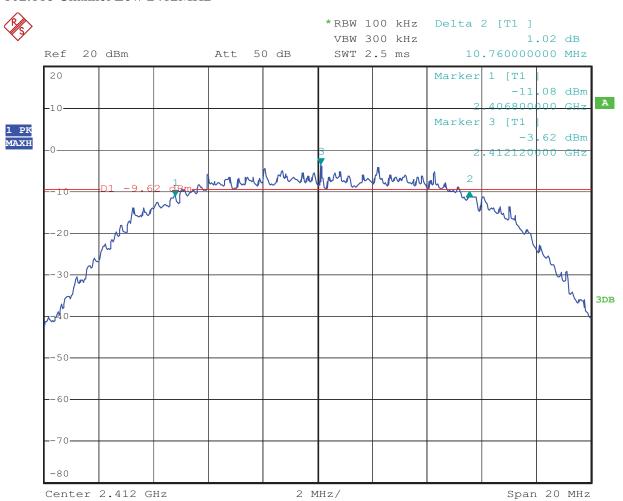
The test was performed with 802.11b						
Channel	Channel Frequency (MHz) 6dB Bandwidth Limit (MHz) (MHz)					
Low	2412	10.76	> 0.5MHz			
Middle	2437	10.60	> 0.5MHz			
High	2462	10.48	> 0.5MHz			

The test was performed with 802.11g						
Channel	Channel Frequency (MHz) 6dB Bandwidth Limit (MHz) (MHz)					
Low	2412	16.60	> 0.5MHz			
Middle	2437	16.56	> 0.5MHz			
High	2462	16.56	> 0.5MHz			

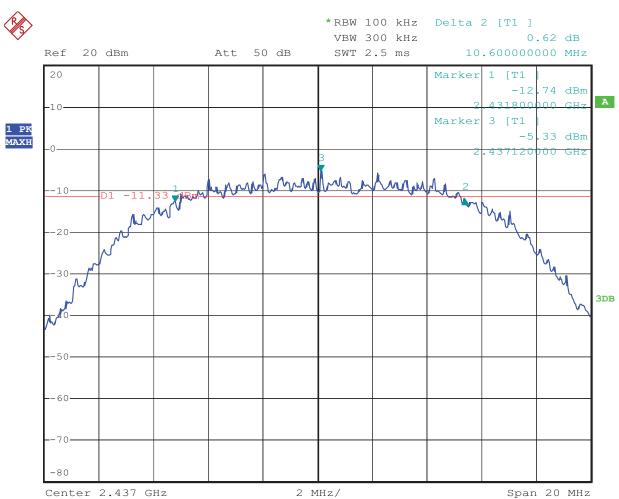
The test was performed with 802.11n						
Channel	Channel Frequency (MHz) 6dB Bandwidth Limit (MHz) (MHz)					
Low	2412	17.76	> 0.5MHz			
Middle	2437	17.72	> 0.5MHz			
High	2462	17.76	> 0.5MHz			

The spectrum analyzer plots are attached as below.

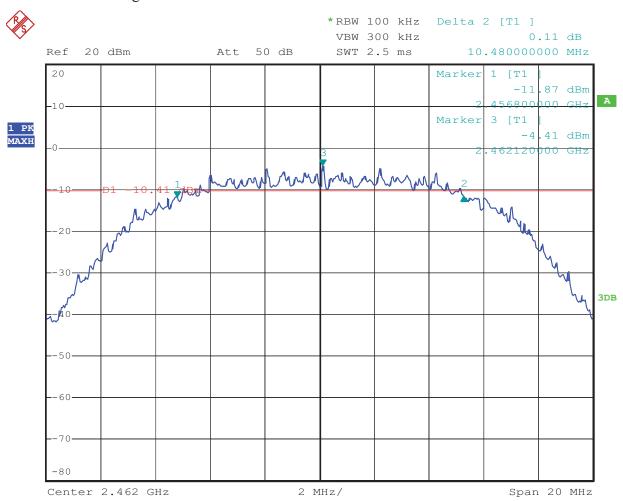
802.11b Channel Low 2412MHz



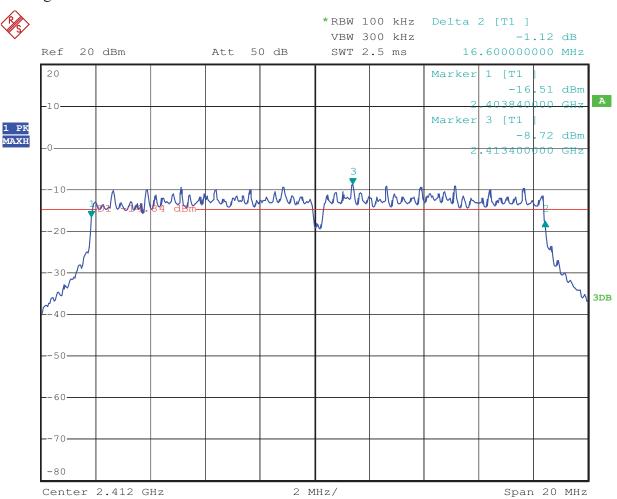
802.11b Channel Middle 2437MHz



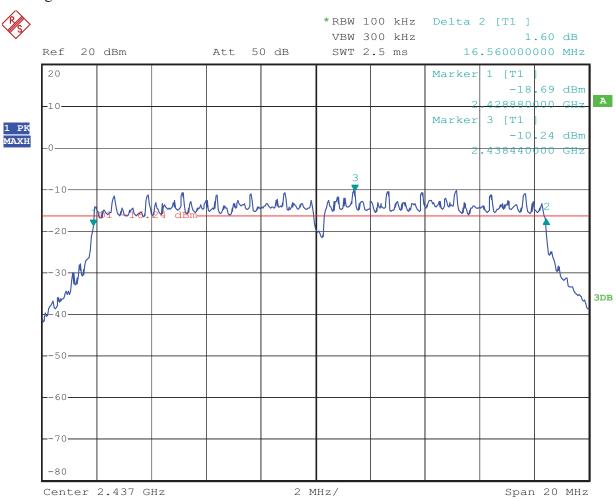
802.11b Channel High 2462MHz



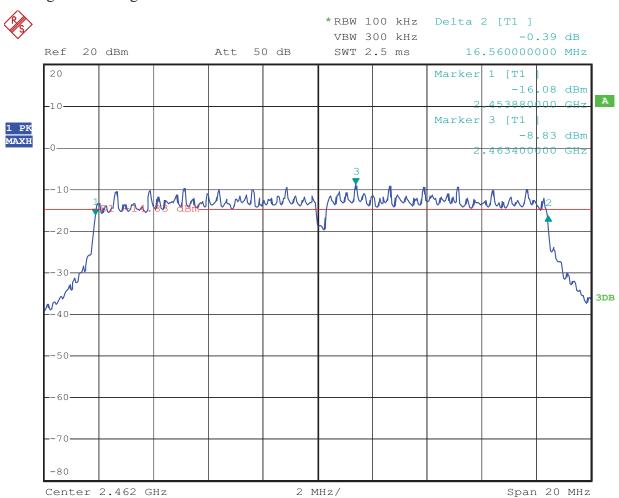
802.11g Channel Low 2412MHz



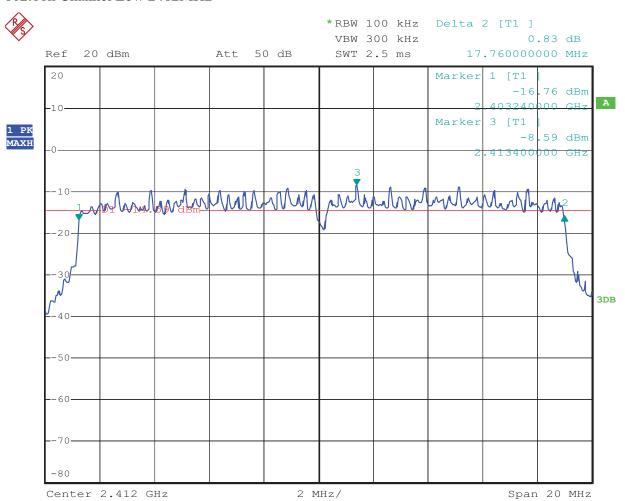
802.11g Channel Middle 2437MHz



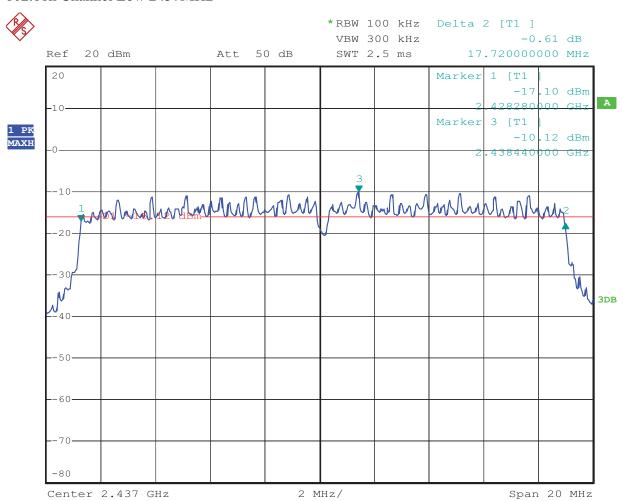
802.11g Channel High 2462MHz



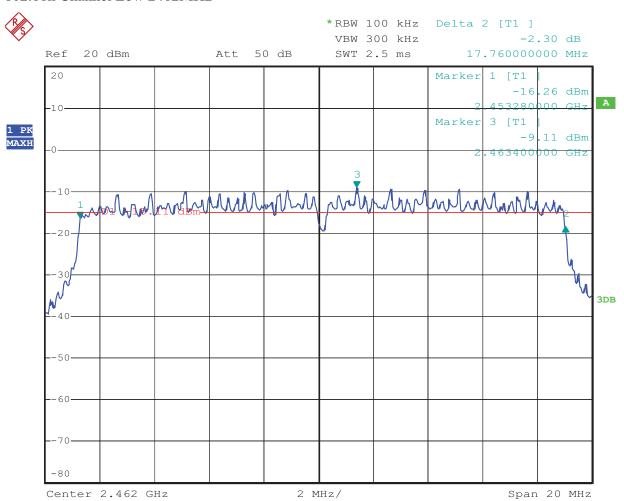
802.11n Channel Low 2412MHz



802.11n Channel Low 2437MHz



802.11n Channel Low 2462MHz



6. MAXIMUM PEAK OUTPUT POWER

6.1.Block Diagram of Test Setup



(EUT: 150M wireless usb adapter)

6.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

6.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.3.1.150M wireless usb adapter (EUT)

Model Number : WU106A

Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

6.4. Operating Condition of EUT

- 6.4.1. Setup the EUT and simulator as shown as Section 6.1.
- 6.4.2. Turn on the power of all equipment.
- 6.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462MHz. We select 2412MHz, 2437MHz, 2462MHz TX frequency to transmit.

6.5. Test Procedure

- 6.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 6.5.2.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
- 6.5.3. Measurement the maximum peak output power.

6.6.Test Result

PASS.

Date of Test:July 13, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:TXTest Engineer:Pei

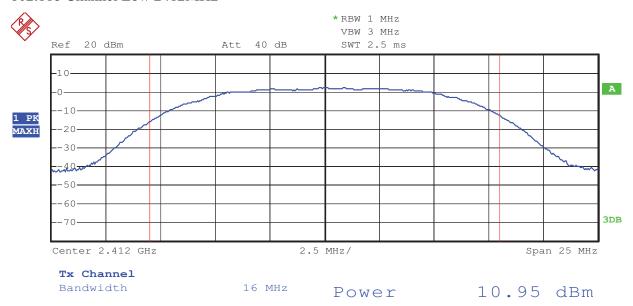
The test was performed with 802.11b					
Channel Frequency (MHz) Peak Output Power (mW) Limits (dBm) (mW) dBm/W					
Low	2412	10.95	12.45	30 dBm / 1 W	
Middle	2437	9.68	9.29	30 dBm / 1 W	
High	2462	10.58	11.43	30 dBm / 1 W	

The test was performed with 802.11g					
Channel Frequency (MHz) Peak Output Power (dBm) Peak Output Power (mW) Limits dBm / W					
Low	2412	10.10	10.23	30 dBm / 1 W	
Middle	2437	9.00	7.94	30 dBm / 1 W	
High	2462	10.01	10.02	30 dBm / 1 W	

The test was performed with 802.11n					
Channel Frequency (MHz) Peak Output Power (dBm) Peak Output Power (mW) Limits dBm / W					
Low	2412	9.67	9.27	30 dBm / 1 W	
Middle	2437	8.65	7.33	30 dBm / 1 W	
High	2462	9.63	9.18	30 dBm / 1 W	

The spectrum analyzer plots are attached as below.

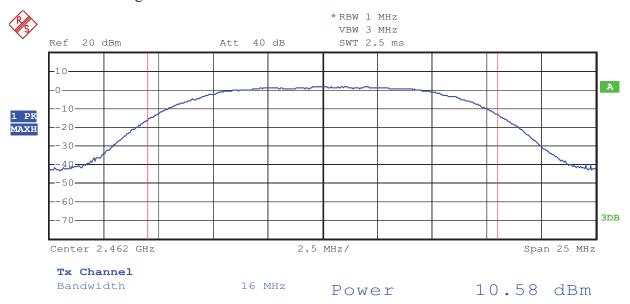
802.11b Channel Low 2412MHz



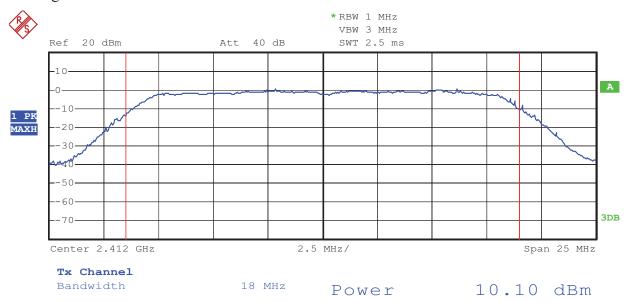
802.11b Channel Middle 2437MHz



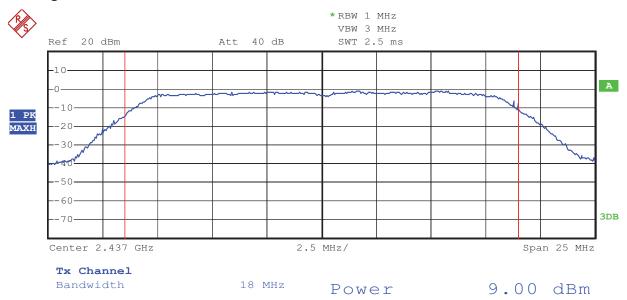
802.11b Channel High 2462MHz



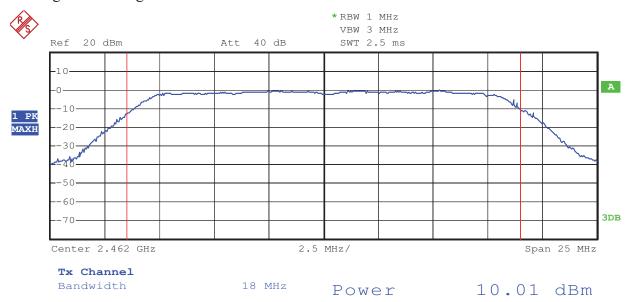
802.11g Channel Low 2412MHz



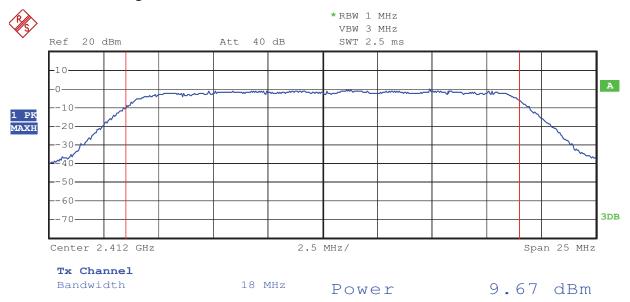
802.11g Channel Middle 2437MHz



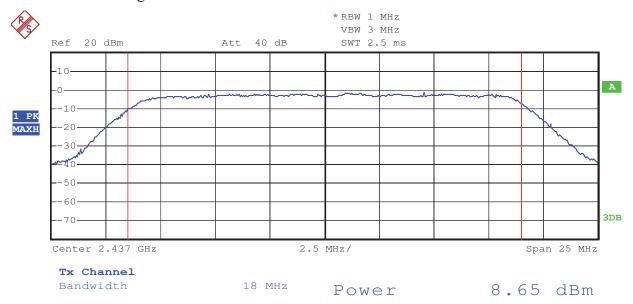
802.11g Channel High 2462MHz



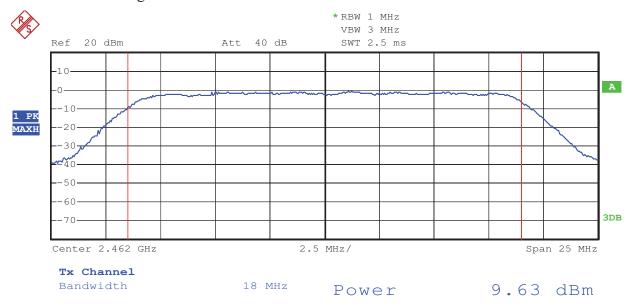
802.11n Channel High 2412MHz



802.11n Channel High 2437MHz



802.11n Channel High 2462MHz



7. POWER SPECTRAL DENSITY MEASUREMENT

7.1.Block Diagram of Test Setup



(EUT: 150M wireless usb adapter)

7.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the 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.

7.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1.150M wireless usb adapter (EUT)

Model Number : WU106A Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

7.4. Operating Condition of EUT

- 7.4.1. Setup the EUT and simulator as shown as Section 7.1.
- 7.4.2. Turn on the power of all equipment.
- 7.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462MHz. We select 2412MHz, 2437MHz, 2462MHz TX frequency to transmit.

7.5.Test Procedure

- 7.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 7.5.2.Set RBW of spectrum analyzer to 3kHz and VBW to 10kHz, sweep time = Span/3kHz.
- 7.5.3. Measurement the maximum power spectral density.

7.6.Test Result

PASS.

Date of Test:July 13, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:TXTest Engineer:Pei

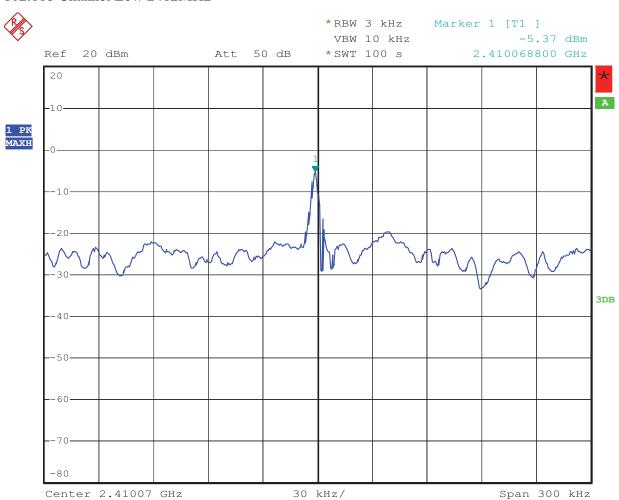
The test was performed with 802.11b						
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)			
Low	2412	-5.37	8 dBm			
Middle	2437	-6.61	8 dBm			
High	2462	-5.08	8 dBm			

The test was performed with 802.11g					
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)		
Low	2412	-24.95	8 dBm		
Middle	2437	-26.77	8 dBm		
High	2462	-24.99	8 dBm		

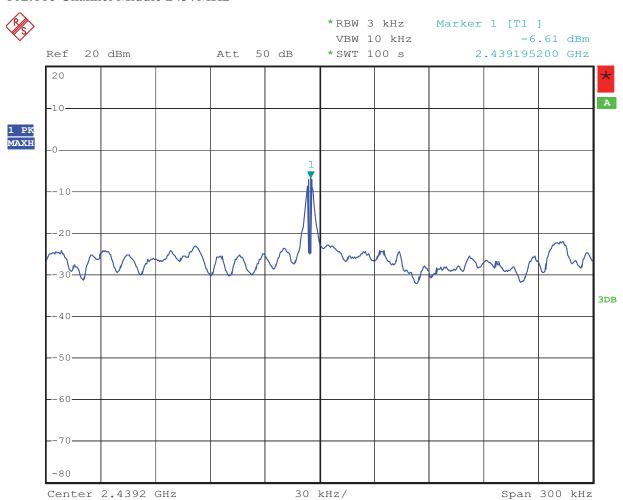
The test was performed with 802.11n					
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)		
Low	2412	-24.06	8 dBm		
Middle	2437	-26.16	8 dBm		
High	2462	-25.30	8 dBm		

The spectrum analyzer plots are attached as below.

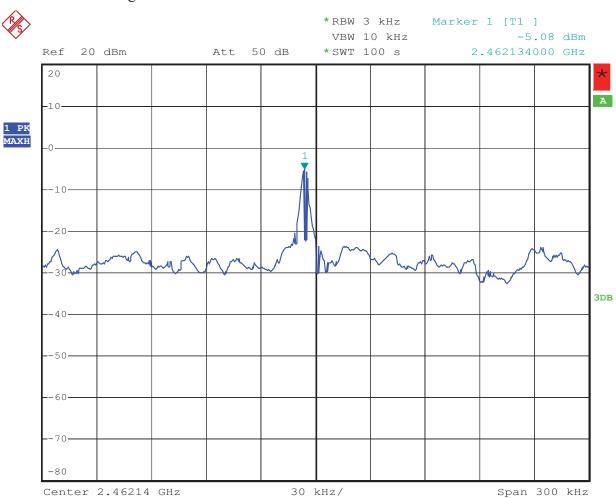
802.11b Channel Low 2412MHz



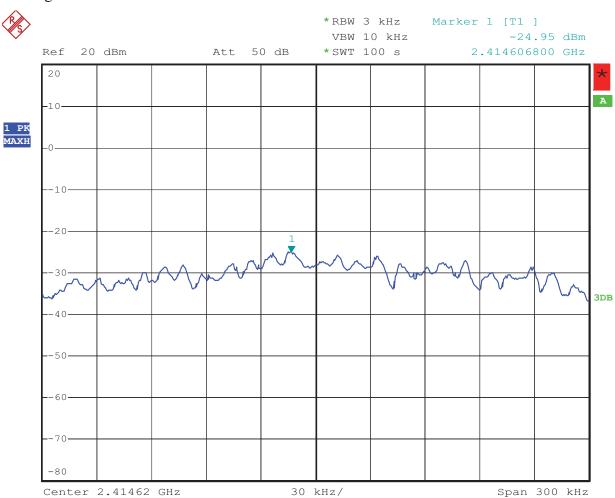
802.11b Channel Middle 2437MHz



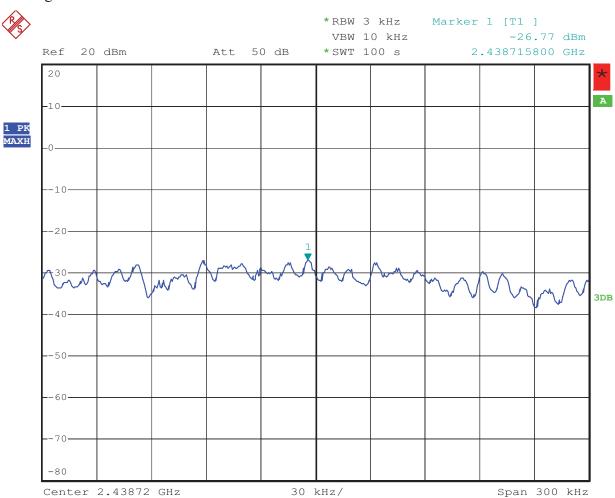
802.11b Channel High 2462MHz



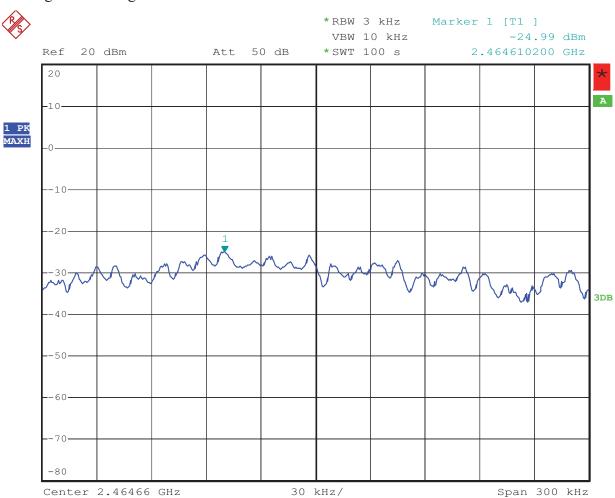
802.11g Channel Low 2412MHz



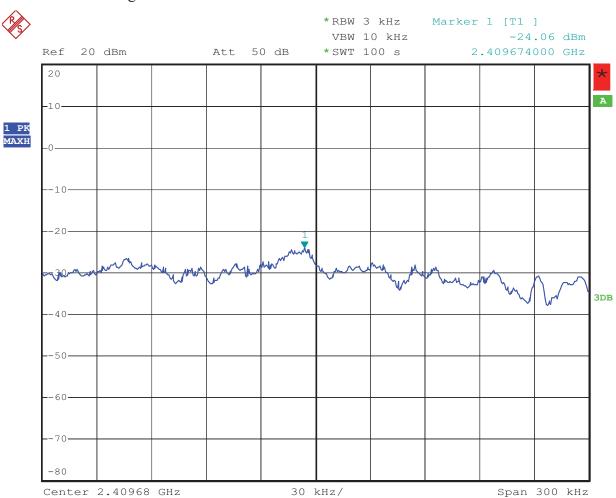
802.11g Channel Middle 2437MHz



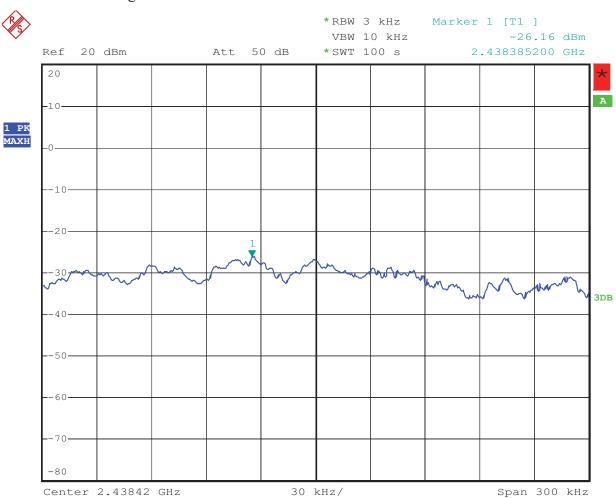
802.11g Channel High 2462MHz



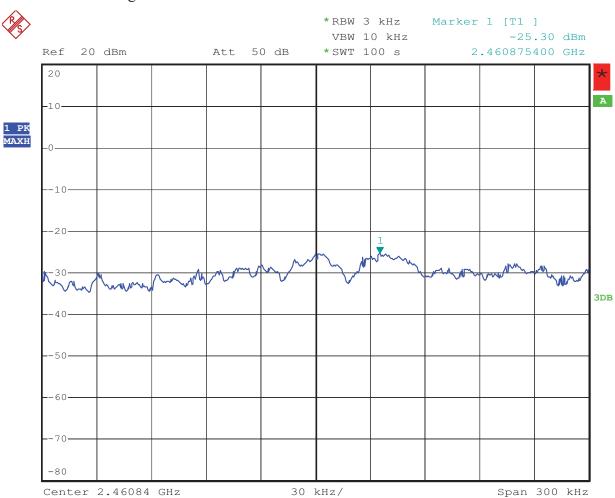
802.11n Channel High 2412MHz



802.11n Channel High 2437MHz



802.11n Channel High 2462MHz



8. BAND EDGE COMPLIANCE TEST

8.1.Block Diagram of Test Setup



(EUT: 150M wireless usb adapter)

8.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

8.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.3.1.150M wireless usb adapter (EUT)

Model Number : WU106A

Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

8.4. Operating Condition of EUT

- 8.4.1. Setup the EUT and simulator as shown as Section 8.1.
- 8.4.2. Turn on the power of all equipment.
- 8.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462MHz. We select 2412MHz, 2462MHz TX frequency to transmit.

8.5.Test Procedure

- 8.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable
- 8.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz with convenient frequency span.
- 8.5.3. The band edges was measured and recorded.

8.6.Test Result

Pass

Conducted test

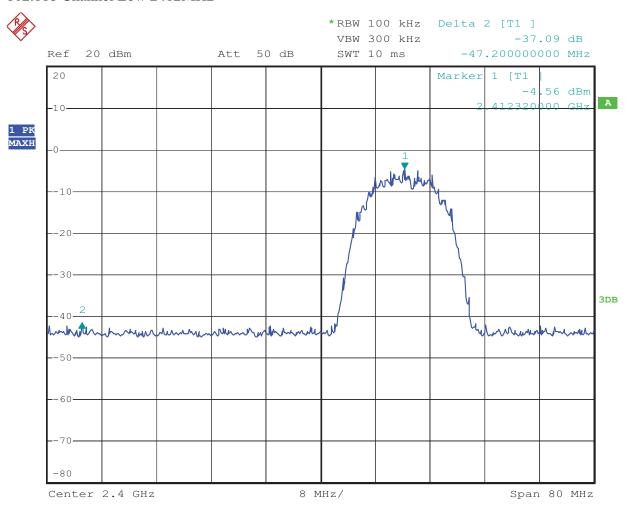
Date of Test:July 13, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:TXTest Engineer:Pei

The test was performed with 802.11b									
Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)							
(MHz)	, , ,	. ,							
2412	37.09	> 20dBc							
2462	36.84	> 20dBc							

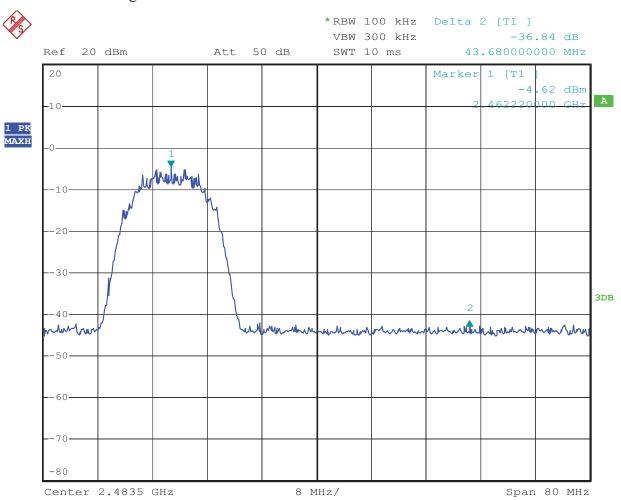
The test was performed with 802.11g									
Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)							
(MHz)									
2412	33.04	> 20dBc							
2462	32.23	> 20dBc							

The test was performed with 802.11n									
Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)							
(MHz)									
2412	32.45	> 20dBc							
2462	32.76	> 20dBc							

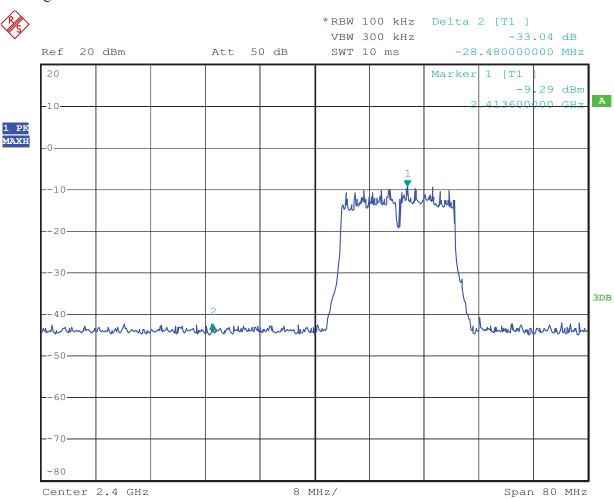
802.11b Channel Low 2412MHz



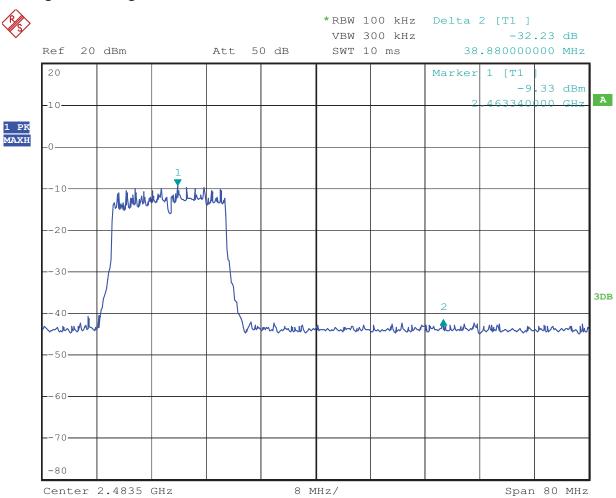
802.11b Channel High 2462MHz



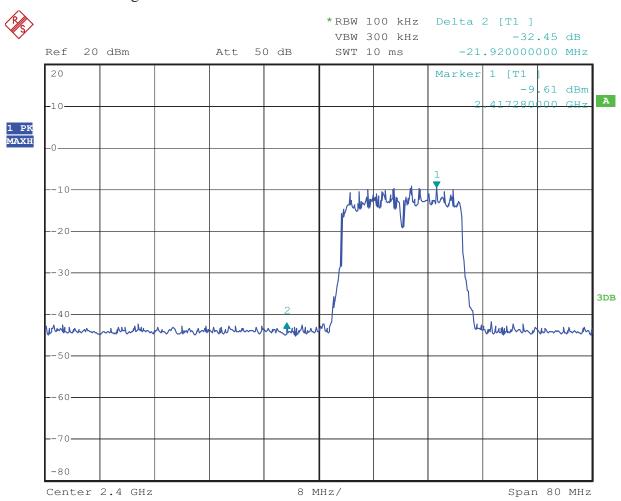
802.11g Channel Low 2412MHz



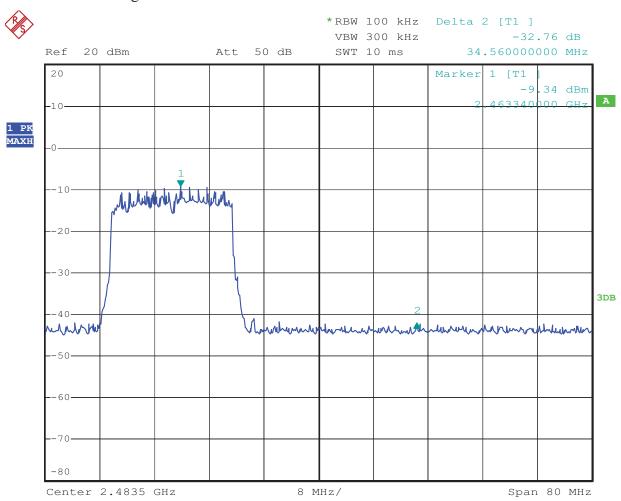
802.11g Channel High 2462MHz



802.11n Channel High 2412MHz



802.11n Channel High 2462MHz



Radiated Band Edge Result

Date of Test:	July 14, 2011	Temperature:	25°C
EUT:	150M wireless usb adapter	Humidity:	50%
Model No.:	WU106A	Power Supply:	DC 5V
Test Mode:	802.11b Channel Low 2412MHz	Test Engineer:	Pei

Frequency	Reading(dBμV/m) Factor(dB)		Result(dBμV/m)		Limit(dBµV/m)		Margin(dB)		Polarization	
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	-	-	-	-	-	-	-	_	Vertical
-	-	-	-	-	-	-	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

3. Display the measurement of peak values.

Date of Test:July 14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11b Channel High 2462MHzTest Engineer:Pei

Frequency			Result(dBμV/m)		Limit(dBµV/m)		Margin(dB)		Polarization	
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	_	-	-	-	-	-	ı	-	Vertical
-	_	_	-	_	_	_	-	-	_	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

 Result = Reading + Corrected Factor
- 3. Display the measurement of peak values.

Date of Test:July 14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11g Channel Low 2412MHzTest Engineer:Pei

Frequency	Reading	(dBµV/m)	Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	-	-	_	-	-	-	ı	-	Vertical
-	_	-	-	_	-	_	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

3. Display the measurement of peak values.

Date of Test:July 14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11g Channel High 2462MHzTest Engineer:Pei

Frequency	Reading((dBµV/m) Factor(dB)		Result(dBμV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	ı	-	-	-	-	-	ı	-	Vertical
-	-	-	-	_	_	-	-	-	_	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

 Result = Reading + Corrected Factor
- 3. Display the measurement of peak values.

Date of Test:July 14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11n Channel Low 2412MHzTest Engineer:Pei

Frequency	Reading	(dBµV/m)	Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	-	-	_	-	-	-	ı	-	Vertical
-	_	-	-	_	-	_	-	-	-	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

3. Display the measurement of peak values.

Date of Test:July 14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11n Channel High 2462MHzTest Engineer:Pei

Frequency	Reading(r(dBμV/m) Factor(dB)		Result(dBμV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
-	-	ı	-	-	-	-	-	ı	-	Vertical
-	-	-	-	_	_	-	-	-	_	Horizontal

Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

 Result = Reading + Corrected Factor
- 3. Display the measurement of peak values.



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: joe #1194

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11b)

Model: WU106A

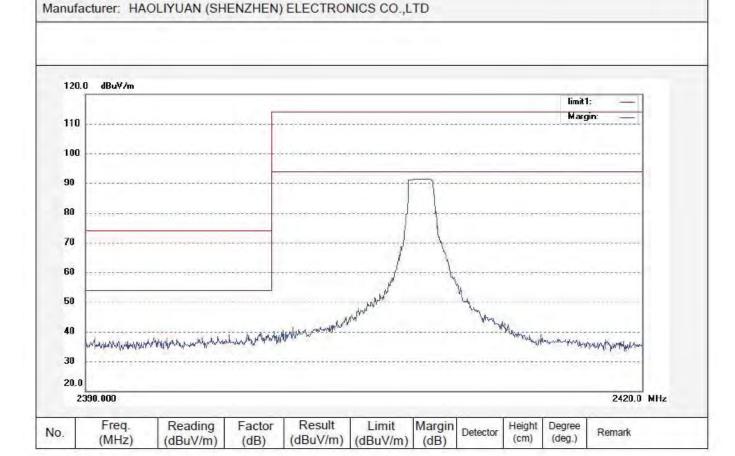
Model. WO 100A

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14

Engineer Signature: Pei

Distance: 3m

Time: 10:33:11





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: joe #1195

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

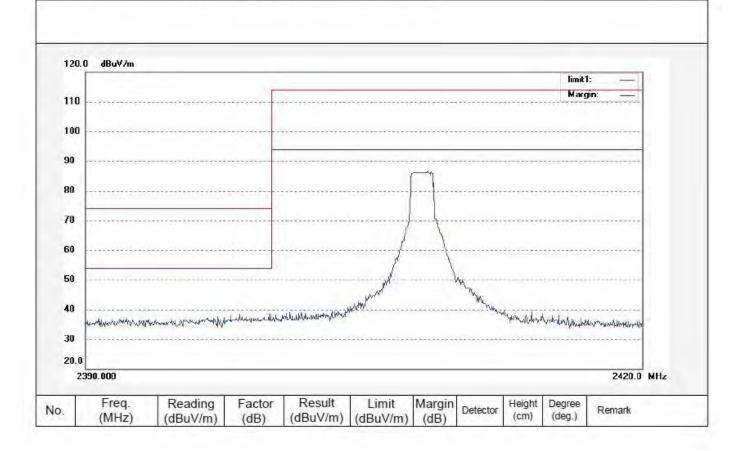
EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/14 Time: 10:37:19

Engineer Signature: Pei





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: joe #1197

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapte

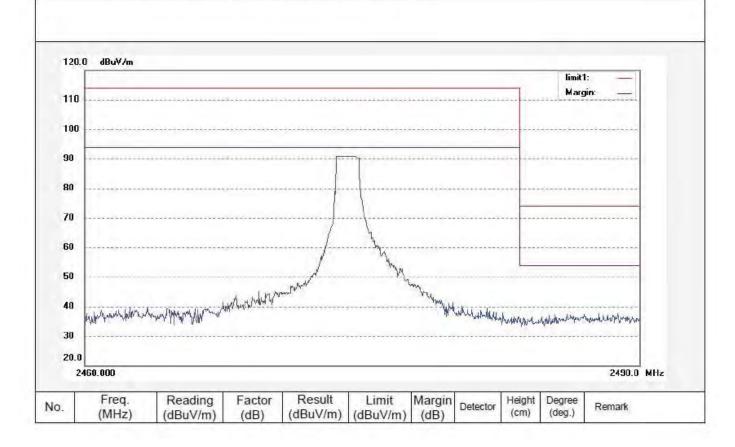
EUT: 150M wireless usb adapter Mode: TX Channel 11 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 10:47;33

Engineer Signature: Pei





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: joe #1196

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter

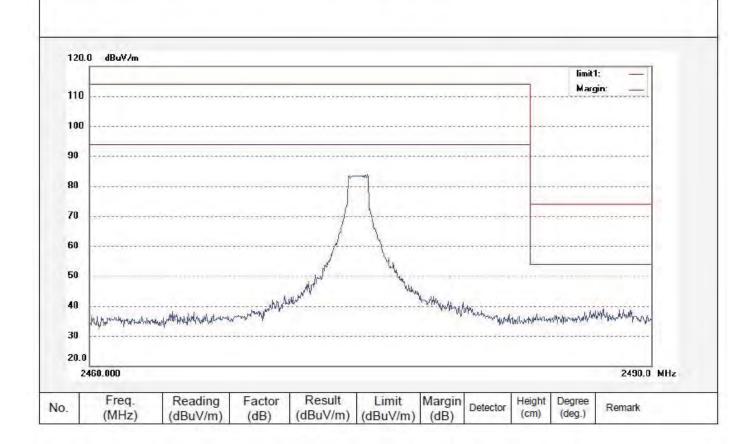
Mode: TX Channel 11 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/14 Time: 10:43:24

Engineer Signature: Pei





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5615

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

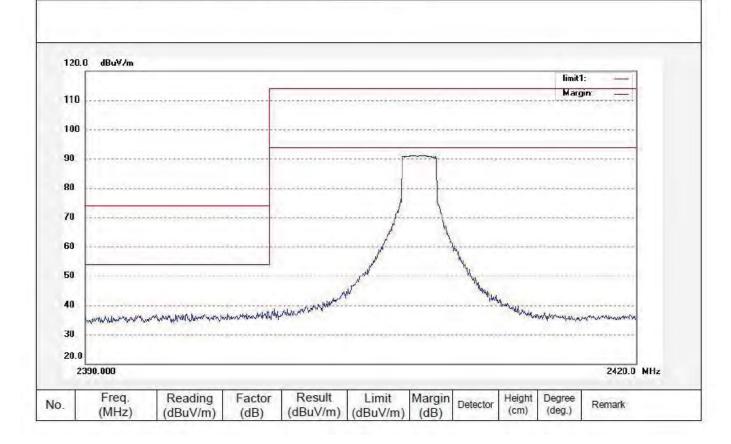
EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 16:32:35

Engineer Signature: Pei





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

2420.0 MHz

Job No.: RTTE #5616

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter

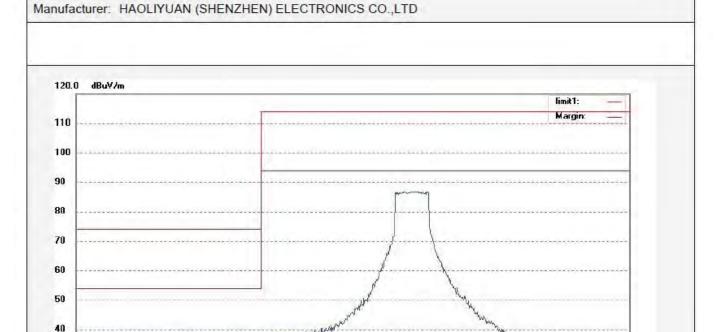
TX Channel 1 (802.11g) Mode:

Model: WU106A

Polarization: Vertical Power Source: DC 5V Date: 2011/07/14 Time: 16:36:50

Engineer Signature: Pei

Distance: 3m



Freq. Reading Factor Result Limit Margin Height Degree Detector No. Remark (deq.) (cm) (dBuV/m) (MHz) (dBuV/m) (dB) (dBuV/m) (dB)

30 20.0

2390.000



F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5618

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

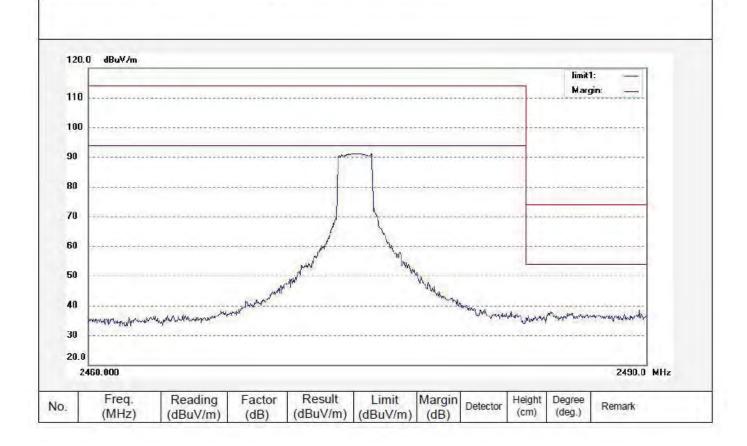
EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 16:46:39 Engineer Signature: Pei





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5617

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

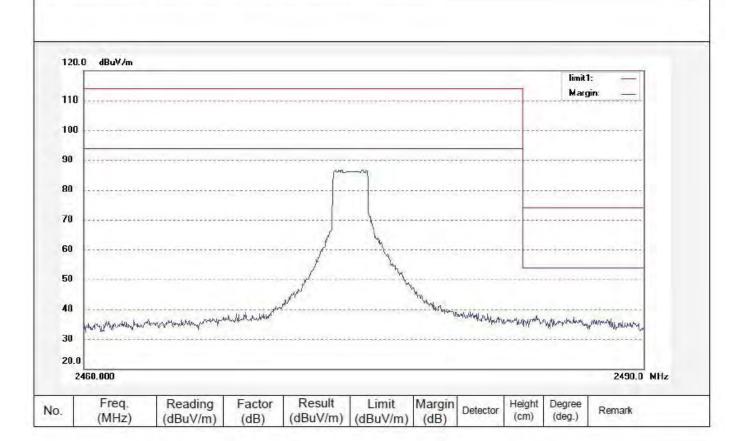
EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/14 Time: 16:42:28 Engineer Signature: Pei





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #4703

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

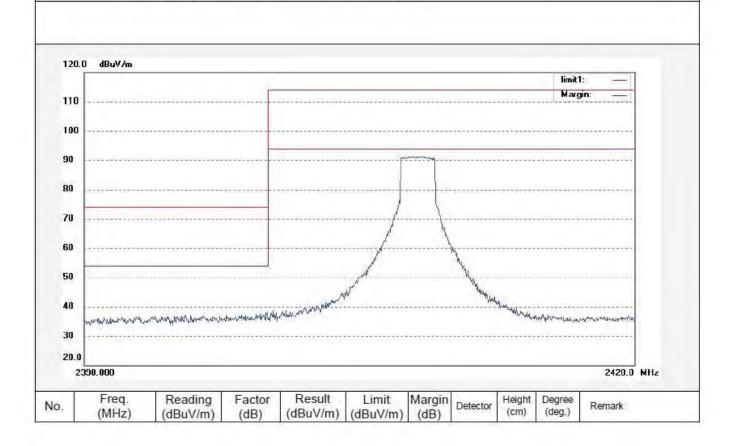
EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/15 Time: 14:23:35

Engineer Signature: PEI





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #4704

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

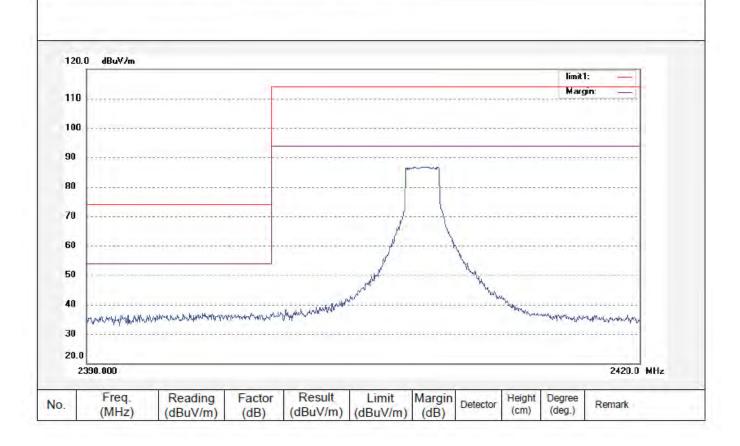
Mode: TX Channel 1 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/15 Time: 14:32:50

Engineer Signature: PEI





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #4706

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

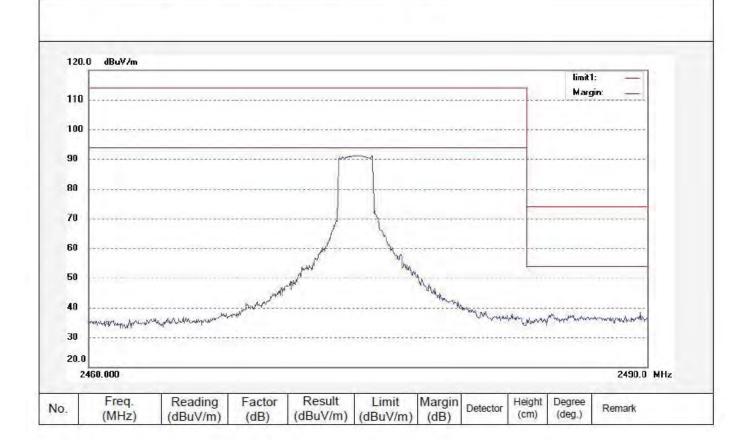
Mode: TX Channel 11 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/15 Time: 14:49:39

Engineer Signature: PEI





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Polarization:

Date: 2011/07/15

Time: 14:41:28

Distance: 3m

Detector

(dB)

(cm)

(deg.)

Power Source: DC 5V

Engineer Signature: PEI

Vertical

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #4705

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

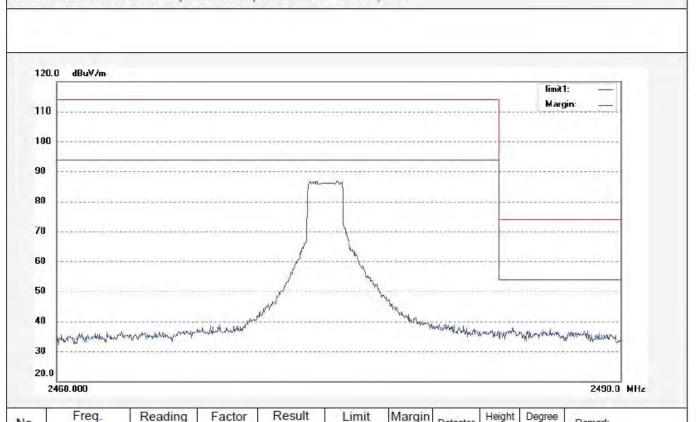
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD



(dBuV/m)

(dBuV/m)

No.

(MHz)

(dBuV/m)

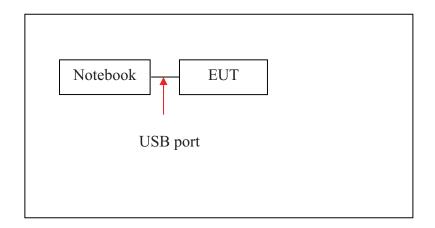
(dB)

Remark

9. RADIATED SPURIOUS EMISSION TEST

9.1.Block Diagram of Test Setup

9.1.1.Block diagram of connection between the EUT and peripherals

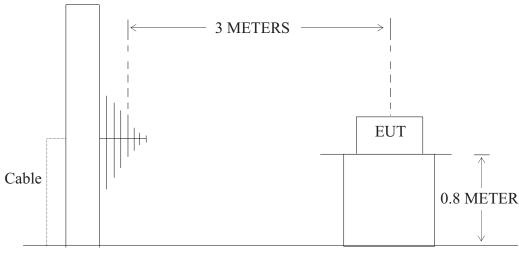


Setup: Transmitting mode

(EUT: 150M wireless usb adapter)

9.1.2.Semi-Anechoic Chamber Test Setup Diagram





GROUND PLANE

(EUT: 150M wireless usb adapter)

9.2. The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

9.3. Restricted bands of operation

9.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

рстп	inced in any or the freque	ncy bands fisicu below.	
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	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	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	$\binom{2}{2}$
13.36-13.41			·

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

²Above 38.6

9.4. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4.1.150M wireless usb adapter (EUT)

Model Number : WU106A Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

9.5. Operating Condition of EUT

- 9.5.1. Setup the EUT and simulator as shown as Section 8.1.
- 9.5.2. Turn on the power of all equipment.
- 9.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462MHz. We select 2412MHz, 2437MHz, 2462MHz TX frequency to transmit.

9.6.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode, based on previous with 802.11 WLAN product design architectures.

The bandwidth of test receiver (R&S ESI26) is set at 120kHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

9.7. The Field Strength of Radiation Emission Measurement Results **PASS.**

Date of Test: July 13-14, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: DC 5V

Test Mode: 802.11b Channel Low 2412MHz Test Engineer: Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
1	-	1	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	(dBµV/m)	Factor	Result(d	BμV/m)	Limit(d	BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2400.000	39.38	45.26	-7.46	31.92	37.80	54	74	-22.08	-36.20	Vertical
2412.030	95.28	101.21	-7.43	87.85	93.78	-	-	-	-	Vertical
*4824.052	50.89	56.81	-0.19	50.70	56.62	54	74	-3.30	-17.38	Vertical
7236.076	44.73	50.66	3.05	47.78	53.71	54	74	-6.22	-20.29	Vertical
2400.000	39.73	45.65	-7.46	32.27	38.19	54	74	-21.73	-35.81	Horizontal
2412.030	96.92	102.86	-7.43	89.49	95.43	-	-	-	-	Horizontal
*4824.052	50.87	56.84	-0.19	50.68	56.65	54	74	-3.32	-17.35	Horizontal
7236.076	44.90	50.92	3.05	47.95	53.97	54	74	-6.05	-20.03	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test: July 13-14, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: DC 5V

Test Mode: 802.11b Channel Middle 2437MHz Test Engineer: Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(d	BμV/m)	Margin(dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2437.032	94.68	100.54	-7.36	87.32	93.18	-	-	-	-	Vertical
*4874.053	50.56	56.47	0.09	50.65	56.56	54	74	-3.35	-17.44	Vertical
*7311.078	44.49	50.41	3.22	47.71	53.63	54	74	-6.29	-20.37	Vertical
2437.032	96.60	102.53	-7.36	89.24	95.17	-	-	-	-	Horizontal
*4874.053	50.56	56.55	0.09	50.65	56.64	54	74	-3.35	-17.36	Horizontal
*7311.078	44.72	50.66	3.22	47.94	53.88	54	74	-6.06	-20.12	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11b Channel High 2462MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(d	BμV/m)	Margin(dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2462.029	95.33	101.29	-7.35	87.98	93.94	-	-	-	-	Vertical
2483.500	39.60	45.63	-7.37	32.23	38.26	54	74	-21.77	-35.74	Vertical
*4924.050	50.38	56.29	0.34	50.72	56.63	54	74	-3.28	-17.37	Vertical
*7386.077	44.54	50.44	3.39	47.93	53.83	54	74	-6.07	-20.17	Vertical
2462.029	96.77	102.74	-7.35	89.42	95.39	-	-	-	-	Horizontal
2483.500	39.66	45.55	-7.37	32.29	38.18	54	74	-21.71	-35.82	Horizontal
*4924.050	50.40	56.37	0.34	50.74	56.71	54	74	-3.26	-17.29	Horizontal
*7386.077	44.28	50.22	3.39	47.67	53.61	54	74	-6.33	-20.39	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11g Channel Low 2412MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading	(dBμV/m)	Factor Corr. (dB)	Result(dBμV/m)		Limit(d	Limit(dBµV/m)		Margin(dBμV/m)	
(IVIIIZ)	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2400.000	39.98	45.88	-7.46	32.52	38.42	54	74	-21.48	-35.58	Vertical
2412.033	95.51	101.43	-7.43	88.08	94.00	-	-	-	-	Vertical
*4824.054	49.80	55.72	-0.19	49.61	55.53	54	74	-4.39	-18.47	Vertical
7236.080	43.58	49.46	3.05	46.63	52.51	54	74	-7.37	-21.49	Vertical
2400.000	39.72	45.68	-7.46	32.26	38.22	54	74	-21.74	-35.78	Horizontal
2412.033	96.09	102.06	-7.43	88.66	94.63	-	-	-	-	Horizontal
*4824.054	50.38	56.22	-0.19	50.19	56.03	54	74	-3.81	-17.97	Horizontal
7236.080	44.23	50.15	3.05	47.28	53.20	54	74	-60.72	-20.80	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11g Channel Middle 2437MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(d	BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2437.031	95.19	101.10	-7.36	87.83	93.74	-	-	-	-	Vertical
*4874.052	50.06	55.95	0.09	50.15	56.04	54	74	-3.85	-17.96	Vertical
*7311.076	44.19	50.06	3.22	47.41	53.28	54	74	-6.59	-20.72	Vertical
2437.031	96.07	101.92	-7.36	88.71	94.56	-	-	-	-	Horizontal
*4874.052	49.23	55.20	0.09	49.32	55.29	54	74	-4.68	-18.71	Horizontal
*7311.076	43.91	49.82	3.22	47.13	53.04	54	74	-6.87	-20.96	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11g Channel High 2462MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	dBμV/m)	Limit(d	BμV/m)	Margin(dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2462.032	95.34	101.29	-7.35	87.99	93.94	-	-	-	-	Vertical
2483.500	39.80	45.72	-7.37	32.43	38.35	54	74	-21.57	-35.65	Vertical
*4924.051	49.30	55.29	0.34	49.64	55.63	54	74	-4.36	-18.37	Vertical
*7386.079	43.52	49.55	3.39	46.91	52.94	54	74	-7.09	-21.06	Vertical
2462.032	96.01	101.95	-7.35	88.66	94.60	-	-	-	-	Horizontal
2483.500	39.66	45.65	-7.37	32.29	38.28	54	74	-21.71	-35.72	Horizontal
*4924.051	49.58	55.46	0.34	49.92	55.80	54	74	-4.08	-18.20	Horizontal
*7386.079	43.46	49.37	3.39	46.85	52.76	54	74	-7.15	-21.24	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11n Channel High 2412MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(d	BμV/m)	Margin(dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2400.000	40.06	45.96	-7.46	32.60	38.50	54	74	-21.40	-35.50	Vertical
2412.036	95.25	101.16	-7.43	87.82	93.73	-	-	-	-	Vertical
*4824.056	50.35	56.24	-0.19	50.16	56.05	54	74	-3.84	-17.95	Vertical
7236.082	43.38	49.29	3.05	46.43	52.34	54	74	-7.57	-21.66	Vertical
2400.000	39.76	45.71	-7.46	32.30	38.25	54	74	-21.70	-35.75	Horizontal
2412.036	96.47	102.36	-7.43	89.04	94.93	-	-	-	-	Horizontal
*4824.056	50.97	56.90	-0.19	50.78	56.71	54	74	-3.22	-17.39	Horizontal
7236.082	44.07	50.03	3.05	47.12	53.08	54	74	-6.88	-20.92	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test: July 13-14, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: DC 5V

Test Mode: 802.11n Channel High 2437MHz Test Engineer: Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(d	Result(dBμV/m)		BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2437.035	95.15	101.07	-7.36	87.79	93.71	-	-	-	-	Vertical
*4874.055	50.00	55.91	0.09	50.09	56.00	54	74	-3.91	18.00	Vertical
*7311.080	43.25	49.14	3.22	46.47	52.36	54	74	-7.53	-21.64	Vertical
2437.035	96.02	101.95	-7.36	88.66	94.59	-	-	-	-	Horizontal
*4874.055	49.90	55.82	0.09	49.99	55.91	54	74	-4.01	-18.092	Horizontal
*7311.080	43.78	49.70	3.22	47.00	52.92	54	74	-7.00	-21.08	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

Date of Test:July 13-14, 2011Temperature:25°CEUT:150M wireless usb adapterHumidity:50%Model No.:WU106APower Supply:DC 5VTest Mode:802.11n Channel High 2462MHzTest Engineer:Pei

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(dBµV/m)		Margin(dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2462.034	95.03	100.96	-7.35	87.68	93.61	-	-	-	-	Vertical
2483.500	39.81	45.72	-7.37	32.44	38.35	54	74	-21.56	-35.65	Vertical
*4924.054	49.53	55.42	0.34	49.87	55.76	54	74	-4.13	-18.24	Vertical
*7386.079	42.77	48.69	3.39	46.16	52.08	54	74	-7.84	-21.92	Vertical
2462.034	96.11	102.10	-7.35	88.76	94.75	-	-	-	-	Horizontal
2483.500	39.93	45.89	-7.37	32.56	38.52	54	74	-21.44	-35.48	Horizontal
*4924.054	50.13	56.16	0.34	50.47	56.50	54	74	-3.53	-17.50	Horizontal
*7386.079	43.83	49.80	3.34	47.17	53.14	54	74	-6.83	-20.86	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5868

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

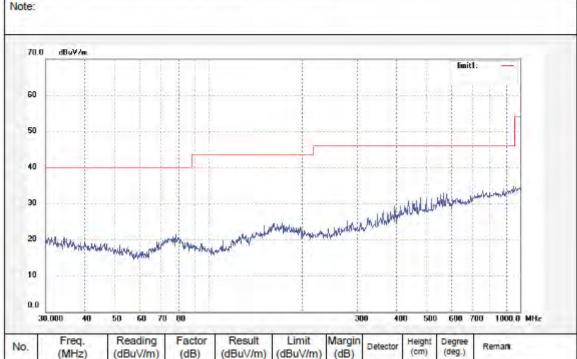
Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Power Source: DC 5V Date: 2011/07/13 Time: 15:01:24 Engineer Signature: PEI

Polarization: Horizontal





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Power Source: DC 5V Date: 2011/07/13

Engineer Signature: Joe

Time: 15:05:27

Distance: 3m

Job No.: RTTE #5869

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

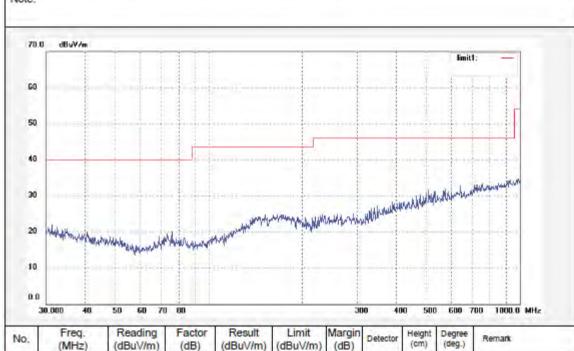
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5887

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

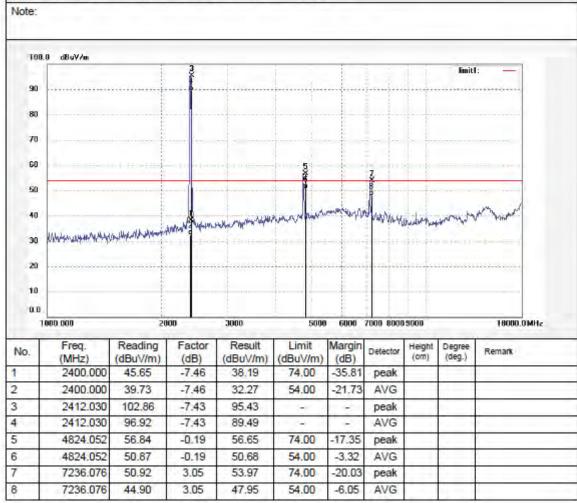
Temp.(C)/Hum.(%) 25 C / 50 %

150M wireless usb adapter Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 9:12:38 Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5886.

Standard: FCC Class B 3M Radiated

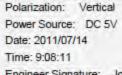
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD



Engineer Signature: Joe

Distance: 3m

100	1.0 dBuV/m									
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20						110	#1 P 1 0			-1
20 10 0.0			00	3000	5000	6000	7000 8000	9000		18000.0MH
20 10 0.0						6000 Margin (dB)	7000 8000 Detector	9000 Height (cm)	Degree (deg.)	18000.0MH Remark
20 10 0.0	1000.000 Freq.	20 Reading	00 Factor	3000 Result	5000	Margin		Height		
20 10 0.0	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	5006 Limit (dBuV/m)	Margin (dB)	Detector	Height		
20 10 0.0	Freq. (MHz) 2400.000	Reading (dBuV/m) 45.26	Factor (dB) -7.46	3000 Result (dBuV/m) 37.80	Limit (dBuV/m) 74.00	Margin (dB) -36,20	Detector	Height		
20 10 0.0	Freq. (MHz) 2400.000 2400.000	Reading (dBuV/m) 45.26 39.38	Factor (dB) -7.46	3000 Result (dBuV/m) 37.80 31.92	Limit (dBuV/m) 74.00 54.00	Margin (dB) -36.20 -22.08	Detector peak AVG	Height		
20 10 0.0	Freq. (MHz) 2400.000 2400.000 2412.030	Reading (dBuV/m) 45.26 39.38 101.21	Factor (dB) -7.46 -7.46 -7.43	3000 Result (dBuV/m) 37.80 31.92 93.78	5000 Limit (dBuV/m) 74.00 54.00	Margin (dB) -36.20 -22.08	Detector peak AVG peak	Height		
20 10 0.0	Freq. (MHz) 2400.000 2400.000 2412.030 2412.030	Reading (dBuV/m) 45.26 39.38 101.21 95.28	Factor (dB) -7.46 -7.46 -7.43	3000 Result (dBuV/m) 37.80 31.92 93.78 87.85	5000 Limit (dBuV/m) 74.00 54.00	Margin (dB) -36.20 -22.08	Detector peak AVG peak AVG	Height		

8

7236.076

44.73

3.05

47.78

54.00

-6.22

AVG



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Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/14

Time: 10:49:50

Distance: 3m

Job No.: RTTE #5904 Standard: FCC Class B 3M Radiated

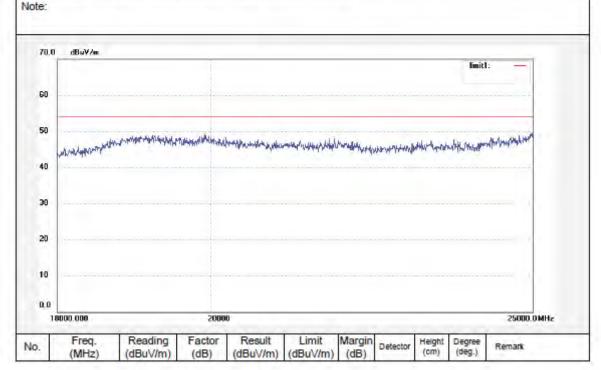
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

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F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

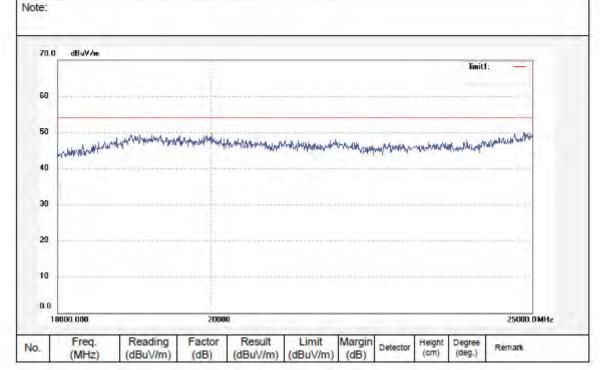
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11b)

WU106A Model:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/14 Time: 10:54:16 Engineer Signature: Joe Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5871

Standard: FCC Class B 3M Radiated

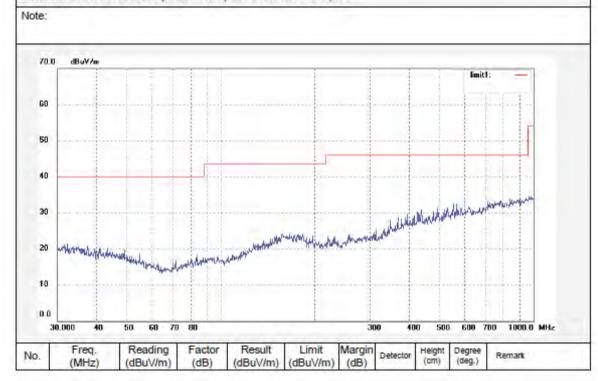
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: 150M wireless usb adapter
Mode: TX Channel 6 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/13 Time: 15:14:30

Engineer Signature: Joe





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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/13

Time: 15:01:24

Distance: 3m

Job No.: RTTE #5868 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

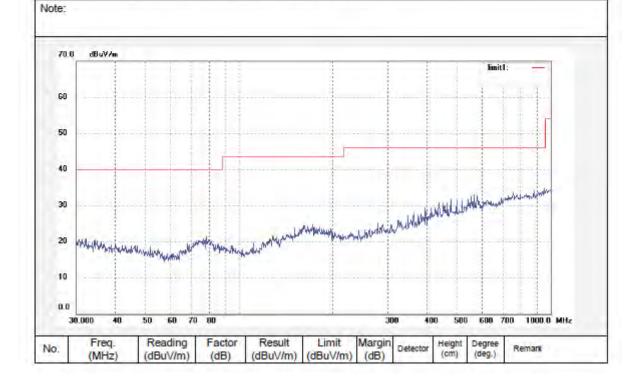
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

TX Channel 6 (802.11b) Mode:

Model:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

WU106A





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5888

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % 150M wireless usb adapter

TX Channel 6 (802.11b) Mode:

WU106A Model:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Engineer Signature: Joe

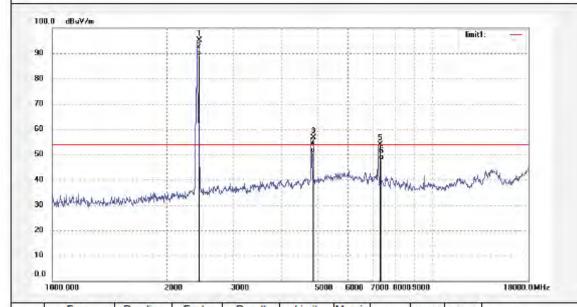
Date: 2011/07/14 Time: 9:17:41

Polarization: Horizontal

Power Source: DC 5V

Distance: 3m

Note:



No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	(deg.)	Remark	
1	2437.032	102.53	-7.36	95.17			peak		-		
2	2437.032	96.60	-7.36	89.24	91.0	18	AVG	15.7	6		
3	4874.053	56.55	0.09	56.64	74.00	-17.36	peak				
4	4874.053	50.56	0.09	50.65	54.00	-3.35	AVG				
5	7311.078	50.66	3.22	53.88	74.00	-20.12	peak		j. — j		
6	7311.078	44.72	3.22	47.94	54.00	-6.06	AVG				



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5889

Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

150M wireless usb adapter TX Channel 6 (802.11b) Mode:

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:

EUT:



Engineer Signature: Joe

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F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/14

Time: 11:03:54

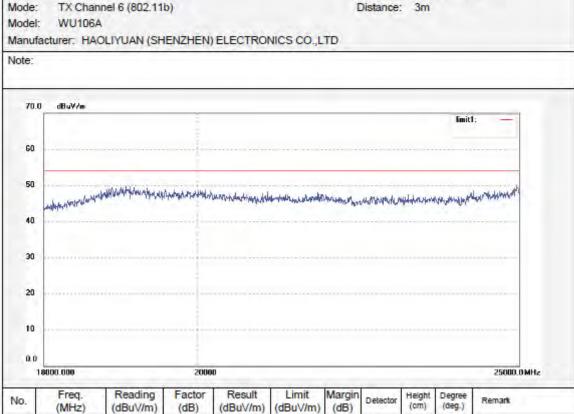
Job No.: RTTE #5907

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11b)





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 10:59:30

Distance: 3m

Job No.: RTTE #5906

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

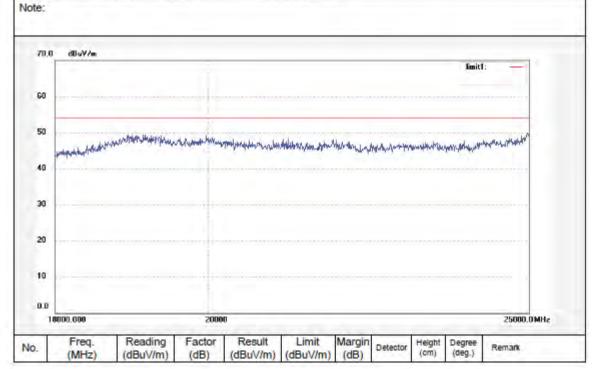
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

1000





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V Date: 2011/07/13

Time: 15:19:41

Distance: 3m

Job No.: RTTE #5872

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

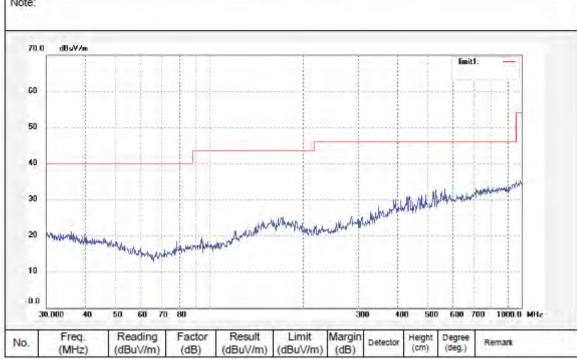
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Moto:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

(MHz)

(dBuV/m)

(dB)

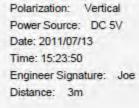
(dBuV/m)

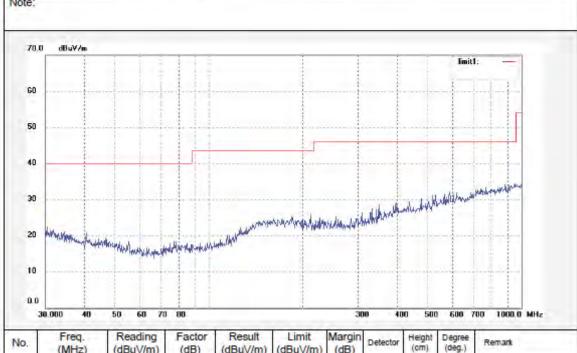
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





(dBuV/m)

(dB)



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V Date: 2011/07/14

Time: 9:31209

Distance: 3m

Job No.: RTTE #5891

Standard: FCC Class B 3M Radiated

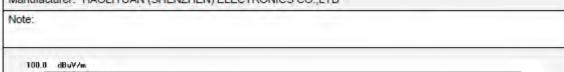
Test item: Radiation Test

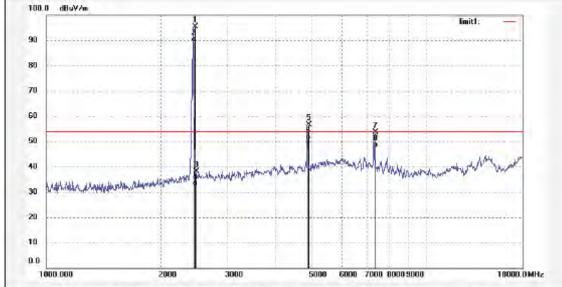
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11b)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	Height (cm)	(deg.)	Remark
1	2462.029	102.74	-7.35	95.39		1-4	peak			
2	2462.029	96.77	-7.35	89.42		1,00401	AVG			
3	2483.500	45.55	-7.37	38.18	74.00	-35.82	peak	1 1		
4	2483.500	39.66	-7.37	32.29	54.00	-21.71	AVG			
5	4924.050	56.37	0.34	56.71	74.00	-17.29	peak			
6	4924.050	50.40	0.34	50.74	54.00	-3.26	AVG			
7	7386.077	50.22	3.39	53.61	74.00	-20.39	peak			
8	7386.077	44.28	3.39	47.67	54.00	-6.33	AVG	1		



F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 9:27:02

Distance: 3m

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

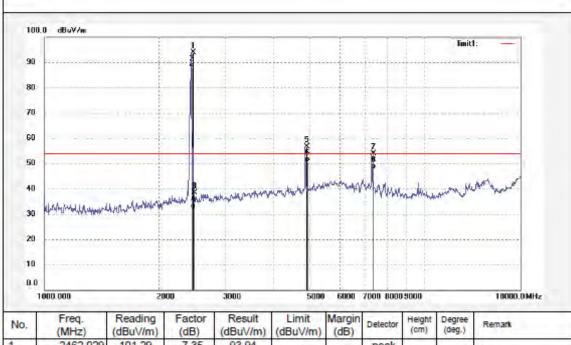
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 11 (802.11b)

Model: WU106A

Note:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	- 11
1	2462.029	101.29	-7.35	93.94		1.60	peak		-		
2	2462.029	95,33	-7.35	87.98	11 10-7 30		AVG		1 9		
3	2483.500	45.63	-7.37	38.26	74.00	-35.74	peak				
4	2483.500	39.60	-7.37	32.23	54.00	-21.77	AVG				
5	4924.050	56.29	0.34	56.63	74.00	-17.37	peak				
6	4924.050	50.38	0.34	50.72	54.00	-3.28	AVG		1 11	# =	
7	7386.077	50.44	3.39	53.83	74.00	-20.17	peak	1			
8	7386.077	44.54	3.39	47.93	54.00	-6.07	AVG				



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5908

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: 150M wireless usb adapter

TX Channel 11 (802.11b)

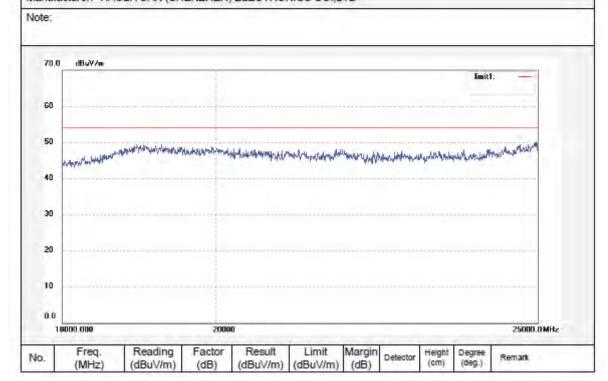
Model: WU106A

Mode:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 11:09:25

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5909 Standard: FCC Class B 3M Radiated Test item: Radiation Test

EUT: 150M wireless usb adapter TX Channel 11 (802.11b) Mode:

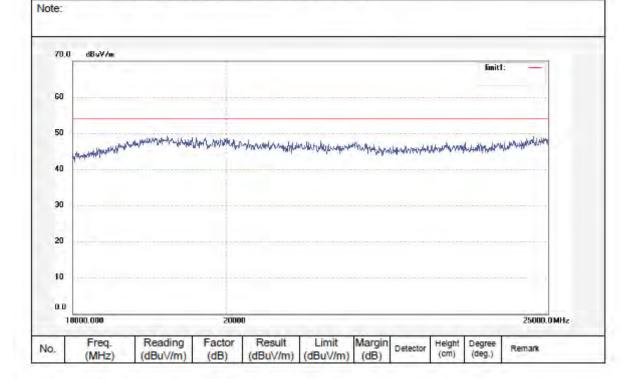
WU106A Model:

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Power Source: DC 5V Date: 2011/07/14 Temp.(C)/Hum.(%) 25 C / 50 % Time: 11:13:52

Engineer Signature: Joe

Polarization: Vertical





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Power Source: DC 5V

Date: 2011/07/13

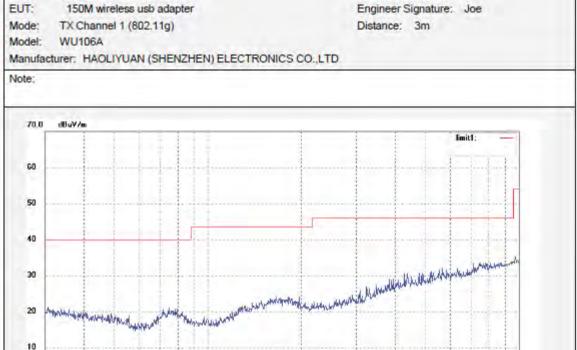
Time: 15:34:25

Job No.: RTTE #5875

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5874 Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

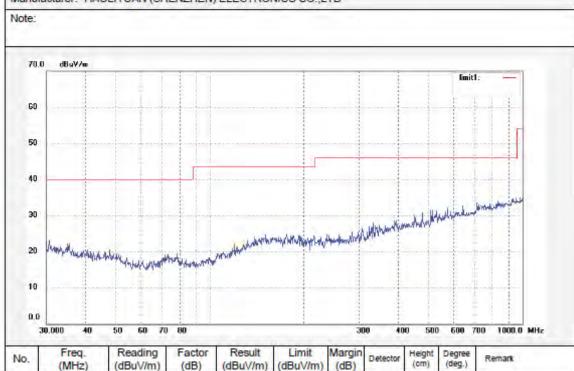
EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/13 Time: 15:30:21

Engineer Signature: Joe





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 9:40:59

Engineer Signature: Joe

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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2400.000	45.68	-7.46	38.22	74.00	-35.78	peak			
2	2400,000	39.72	-7.46	32.26	54.00	-21.74	AVG		0 = 1	
3	2412.033	102.06	-7.43	94.63	- 8	(3)	peak			
4	2412.033	96.09	-7.43	88.66			AVG			
5	4824.054	56.22	-0.19	56.03	74.00	-17.97	peak			
6	4824.054	50.38	-0.19	50.19	54.00	-3.81	AVG			
7	7236.080	50.15	3.05	53.20	74.00	-20.80	peak			
8	7236,080	44.23	3.05	47.28	54.00	-6.72	AVG			



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 9:45:27

Distance: 3m

Job No.: RTTE #5893

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

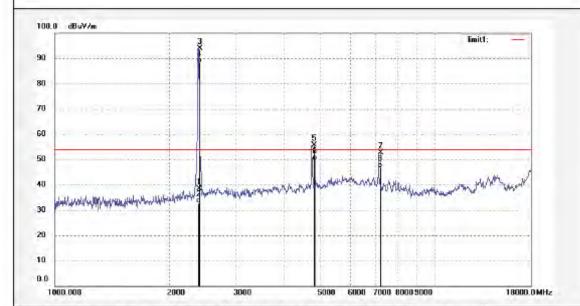
EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	-
1	2400.000	45.88	-7.46	38.42	74.00	-35.58	peak		-		
2	2400.000	39.98	-7.46	32.52	54.00	-21.48	AVG	: : 11	-		
3	2412.033	101.43	-7.43	94.00	14	-	peak	11.71			
4	2412.033	95.51	-7.43	88.08	- 5	-	AVG				
5	4824,054	55.72	-0.19	55.53	74.00	-18.47	peak				
6	4824.054	49.80	-0.19	49.61	54.00	-4.39	AVG				
7	7236.080	49.46	3.05	52.51	74.00	-21.49	peak				
8	7236.080	43.58	3.05	46.63	54.00	-7.37	AVG	11 5 41			



F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5911 Standard: FCC Class B 3M Radiated

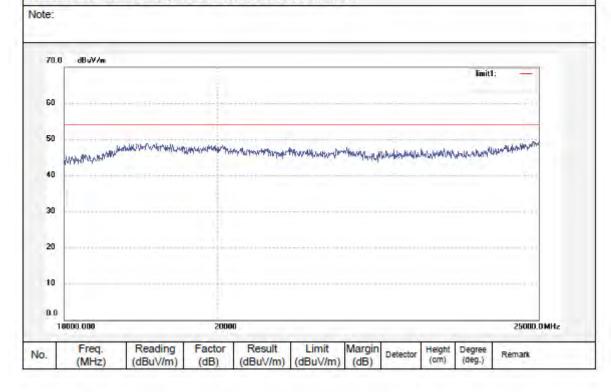
Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 11:25:08 Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V Date: 2011/07/14

Engineer Signature: Joe

Time: 11:20:46

Distance: 3m

Job No.: RTTE #5910

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

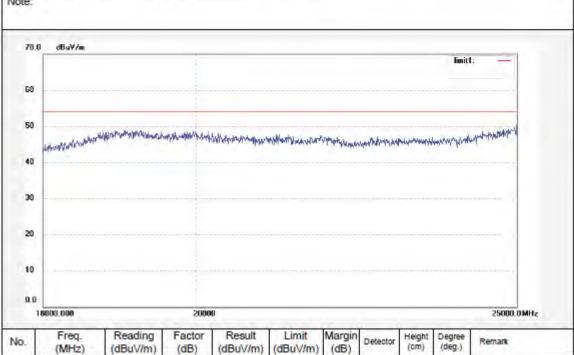
EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

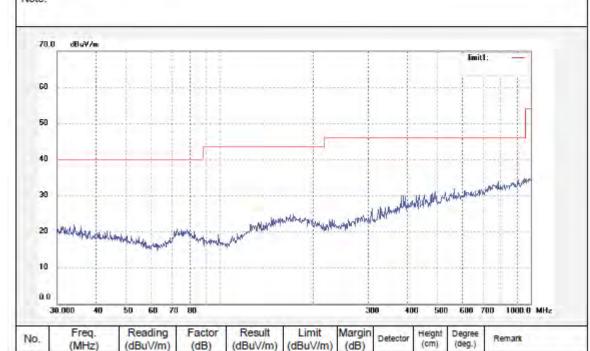
Mode: TX Channel 6 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:







F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/13

Time: 15:43:40

Distance: 3m

Job No.: RTTE #5877

Standard: FCC Class B 3M Radiated

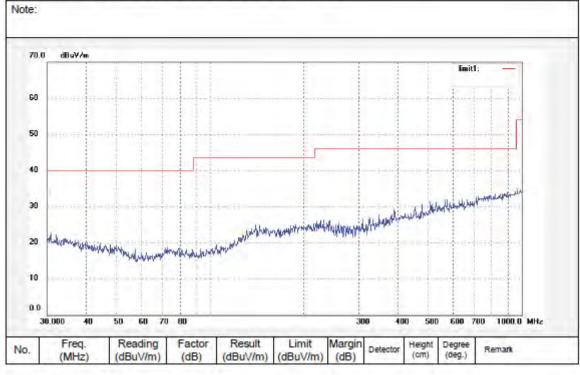
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 6 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5895

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter

Mode: TX Channel 6 (802.11g)

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4874.052

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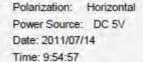
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47.13

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



Engineer Signature: Joe

Distance: 3m

AVG

peak

AVG

peak

AVG

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F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5894

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

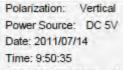
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 6 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



Engineer Signature: Joe

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20 10 0.0 1 No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	5000 Limit (dBuV/m)	6000 Margin (dB)	7000 8000 Detector	9000 Helght	Degree	18000.0 M
20 10 0.0 1 No.	Freq. (MHz) 2437.031	Reading (dBuV/m) 101.10	Factor (dB)	3000 Result (dBuV/m) 93,74	Sood Limit (dBuV/m)	6000 Margin (dB)	7000 8000 Detector	9000 Helght	Degree	18000.0 M
20 10 0.0 No.	Freq. (MHz) 2437.031 2437.031	Reading (dBuV/m) 101.10 95.19	Factor (dB) -7.36	3000 Result (dBuV/m) 93.74 87.83	Limit (dBuV/m)	Margin (dB)	7000 8000 Detector peak AVG	9000 Helght	Degree	18000.0 M
20 10 0.0	Freq. (MHz) 2437.031 2437.031 4874.052	Reading (dBuV/m) 101.10 95.19 55.95	Factor (dB) -7.36 -7.36 0.09	3000 Result (dBuV/m) 93.74 87.83 56.04	5000 Limit (dBuV/m)	Margin (dB)	Detector peak AVG peak	9000 Helght	Degree	18000.0 M



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Power Source: DC 5V

Date: 2011/07/14

Time: 11:30:31

Job No.: RTTE #5912

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

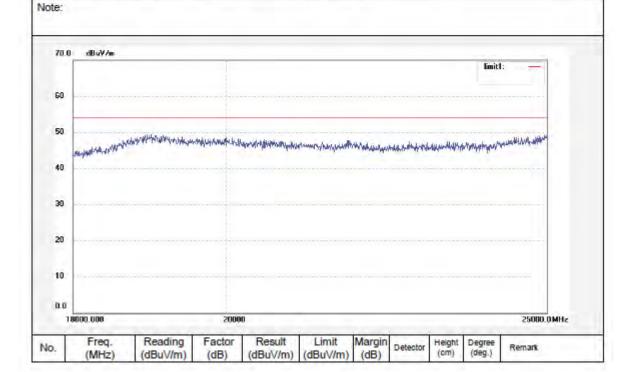
Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

ess usb adapter Engineer Signature: Joe 6 (802.11g) Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 11:34:51

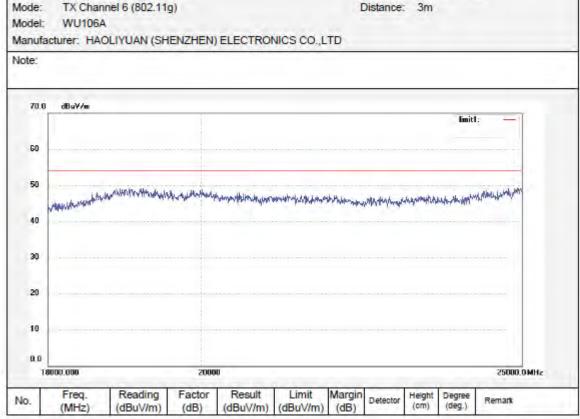
Job No.: RTTE #5913

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/13

Time: 15:53:06

Distance: 3m

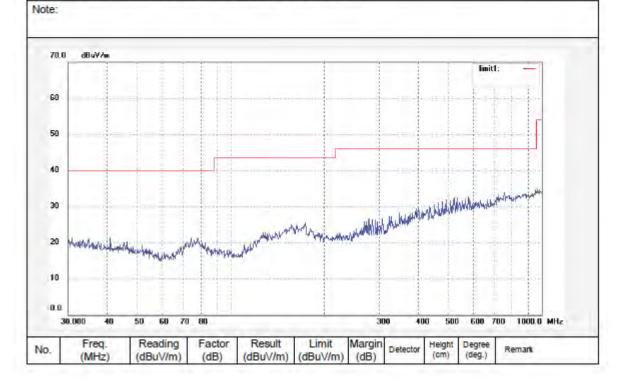
Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

150M wireless usb adapter Mode: TX Channel 11 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/13

Time: 15:48:55

Distance: 3m

Job No.: RTTE #5878

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

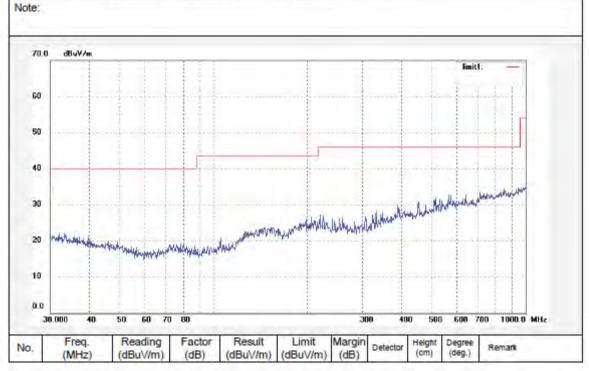
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

127.1





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5896

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter Mode: TX Channel 11 (802.11g)

Model: WU106A

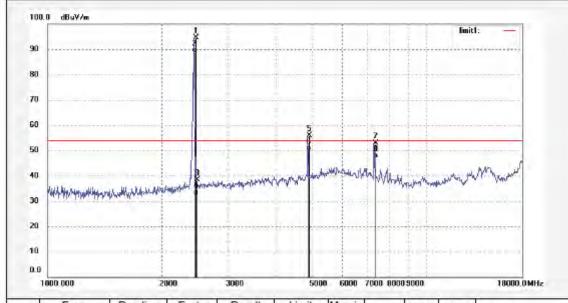
Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 10:00:24

Engineer Signature: Joe

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2462.032	101.95	-7.35	94.60	-	~	peak	1		
2	2462.032	96.01	-7.35	88.66	950	I e I	AVG	(17.0)		
3	2483.500	45.65	-7.37	38.28	74.00	-35.72	peak			
4	2483.500	39.66	-7.37	32.29	54.00	-21.71	AVG			
5	4924.051	55.46	0.34	55.80	74.00	-18.20	peak		-	
6	4924.051	49.58	0.34	49.92	54.00	-4.08	AVG	11.00	-	10
7	7386.079	49.37	3.39	52.76	74.00	-21.24	peak			iri -
8	7386.079	43.46	3.39	46.85	54.00	-7.15	AVG	1		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5897

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11g)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:

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2483,500

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7386.079

7386.079

45.72

39.80

55.29

49.30

49.55

43.52

-7.37

-7.37

0.34

0.34

3.39

3.39

38.35

32.43

55.63

49.64

52.94

46.91

74.00

54.00

74.00

54.00

74.00

54.00

-35.65

-21.57

-18.37

4 36

-21.06

-7.09

peak

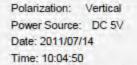
AVG

peak

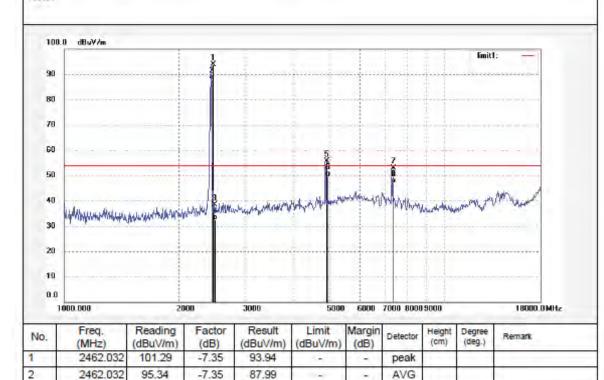
AVG

peak

AVG



Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/14

Time: 11:44:35

Distance: 3m

Job No.: RTTE #5915

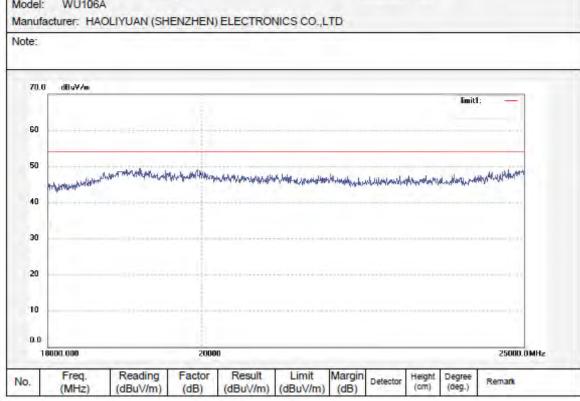
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11g)

Model: WU106A





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 11:40:09

Distance: 3m

Job No.: RTTE #5914

Standard: FCC Class B 3M Radiated

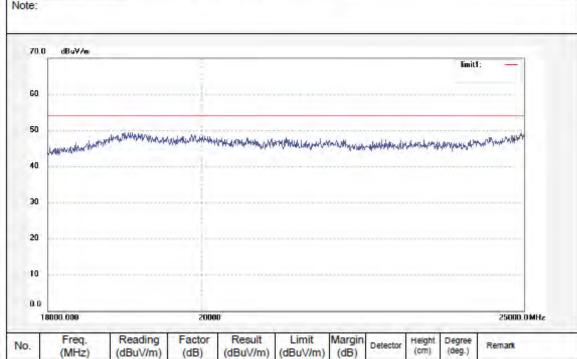
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

TX Channel 11 (802.11g) Mode:

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/13 Time: 16:01:35

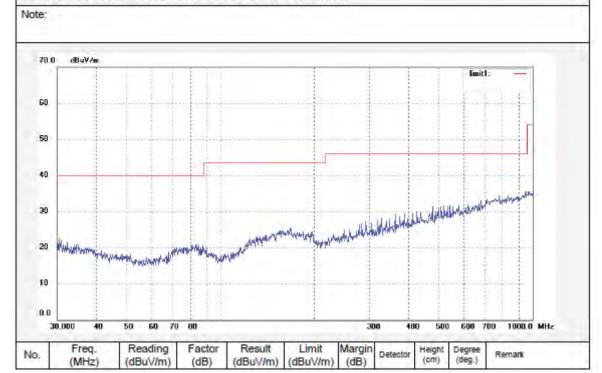
Distance: 3m

Job No.: RTTE #5880 Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

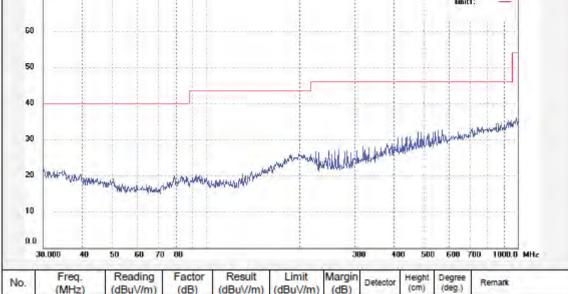
Polarization: Vertical

Power Source: DC 5V

Job No.: RTTE #5881

Standard: FCC Class B 3M Radiated







F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5899

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



ingineer signature. Joe

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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark.
1	2400.000	45.71	-7.46	38.25	74.00	-35.75	peak	1		
2	2400.000	39.76	-7.46	32.30	54.00	-21.70	AVG			
3	2412.036	102.36	-7.43	94.93			peak	-		
4	2412.036	96.47	-7.43	89.04	15.00	1	AVG	11		11
5	4824.056	56.90	-0.19	56.71	74.00	-17.39	peak			To the second
6	4824.056	50.97	-0.19	50.78	54.00	-3.22	AVG	4.73		to the second
7	7236.082	50.03	3.05	53.08	74.00	-20.92	peak			
8	7236.082	44.07	3.05	47.12	54.00	-6.88	AVG			



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5898

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

7236.082

7236.082

8

49.29

43.38

3.05

3.05

52.34

46.43

74.00

54.00

-21.66

-7.57

peak

AVG

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 1 (802.11n) Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



Engineer Signature: Joe

100	.0 dBuV/m									
90	410 110-1-0		3						limit1	: =
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20 10 0.0	000.000	20	>+4 - 1 - 4 + 5 + 4 + 4			6000	7000 8000	9000	Degree	
20 10 0.0	000.000 Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	Some Limit (dBuV/m)	Margin (dB)			Degree (deg.)	18000.0
20 10 0.0	000.000 Freq.	20 Reading	oo Factor	3000 Result	5006	6000 Margin	7000 8000	9000 Height		
20 10 0.0 1 No.	000.000 Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	Some Limit (dBuV/m)	Margin (dB)	7000 8000 Detector	9000 Height		
20 10 0.0 1	Freq. (MHz) 2400.000	Reading (dBuV/m) 45.96	Factor (dB) -7.46	3000 Result (dBuV/m) 38.50	5000 Limit (dBuV/m) 74.00	6000 Margin (dB) -35.50	7000 8000 Detector peak	9000 Height		
20 10 0.0 1	Freq. (MHz) 2400.000 2400.000	Reading (dBuV/m) -45.96 -40.06	Factor (dB) -7.46	3000 Result (dBuV/m) 38.50 32.60	Limit (dBuV/m) 74.00 54.00	Margin (dB) -35.50	Detector peak AVG	9000 Height		
20 10 0.0 1 No.	Freq. (MHz) 2400.000 2400.000 2412.036	Reading (dBuV/m) -45.96 -40.06 101.16	Factor (dB) -7.46 -7.46 -7.43	3000 Result (dBuV/m) 38.50 32.60 93.73	Limit (dBuV/m) 74.00 54.00	Margin (dB) -35.50	Detector peak AVG peak	9000 Height		



F1, Bldg, A, Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/14

Time: 11:52:09

Distance: 3m

Job No.: RTTE #5916 Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 1 (802.11n)

WU106A Model:

Reading

(dBuV/m)

Freq.

(MHz)

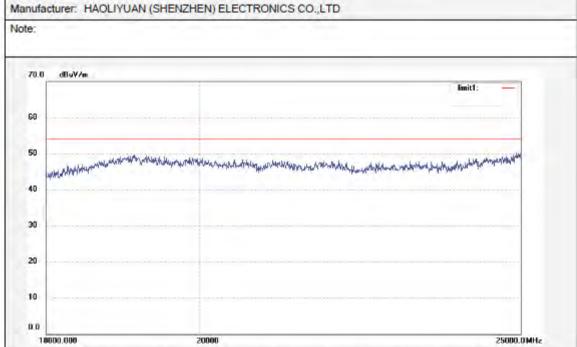
No.

Factor

(dB)

Result

(dBuV/m)



Margin

(dB)

Detector

Height

(cm)

Degree

(deg.)

Remark

Limit

(dBuV/m)



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

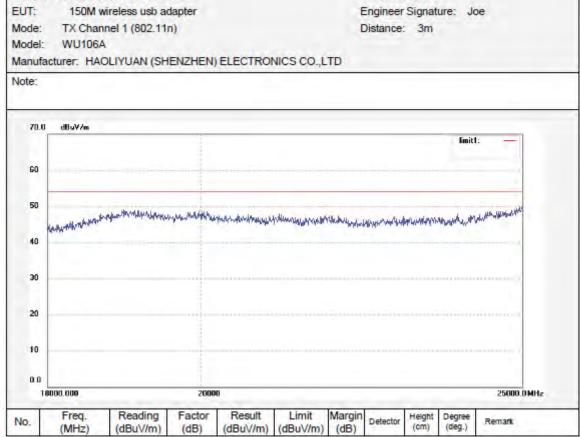
Power Source: DC 5V Date: 2011/07/14

Time: 11:56:43

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Engineer Signature: Joe

Power Source: DC 5V

Date: 2011/07/13

Time: 16:14:58

Distance: 3m

Job No.: RTTE #5883

Standard: FCC Class B 3M Radiated

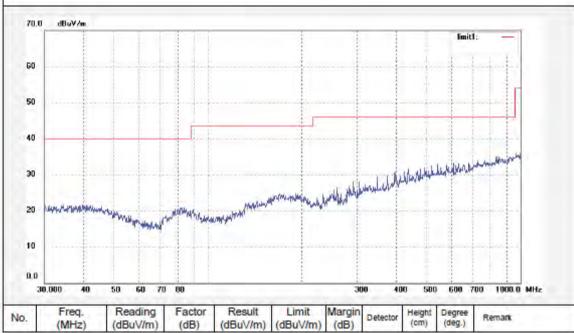
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter TX Channel 6 (802.11n) Mode:

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5882

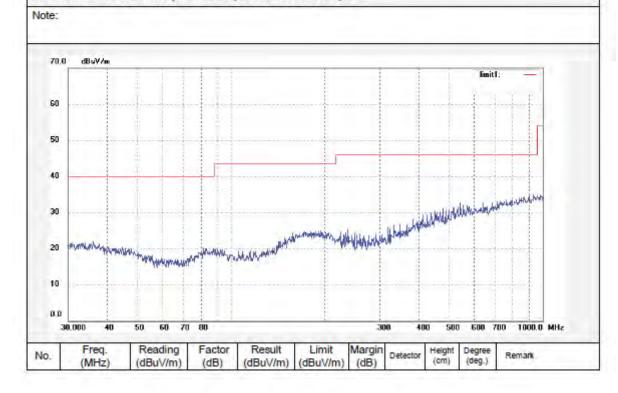
Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 50 % 150M wireless usb adapter Mode: TX Channel 6 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Polarization: Vertical Power Source: DC 5V Date: 2011/07/13 Time: 16:10:50 Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5900

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

2437.035

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3.22

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94.59

88.66

55.91

49.99

52.92

47.00

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 10:24:18

Engineer Signature: Joe

Distance: 3m

peak

AVG

peak

AVG

peak

peak

-18.09

-4.01

-21.08

-7.00

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F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5901

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 6 (802.11n)

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46.47

54.00

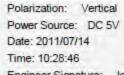
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AVG

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



Engineer Signature: Joe

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30 20 10 0.0		etheratii Maradiil	5111011611	3000	5000		7000 8000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	18000.0MHz
30 20 10 0.0	191111111111111111111111111111111111111		5111011611						Degree (deg.)	***********
30 20 10 0.0	1000.000 Freq.	zoo Reading	00 Factor	3000 Result	5000	6000 Margin	7000 8000	9000 Height	Degree	18000.0MHz
30 20 10 0.0	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	5000 Limit (dBuV/m)	Margin (dB)	7000 8000 Detector	9000 Height	Degree	18000.0MHz
30 20 10 0.0	Freq. (MHz) 2437.035	Reading (dBuV/m) 101.07	Factor (dB) -7.36	3000 Result (dBuV/m) 93.71	5000 Limit (dBuV/m)	Margin (dB)	7000 8000 Detector peak	9000 Height	Degree	18000.0MHz



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

lob No.: RTTE #5919

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11n)

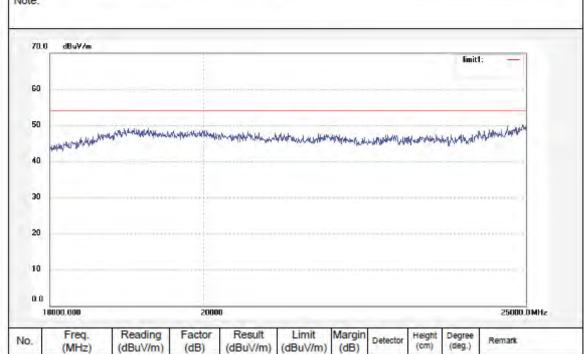
Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:

Polarization: Horizontal Power Source: DC 5V Date: 2011/07/14 Time: 12:05:30

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 12:01:19

Distance: 3m

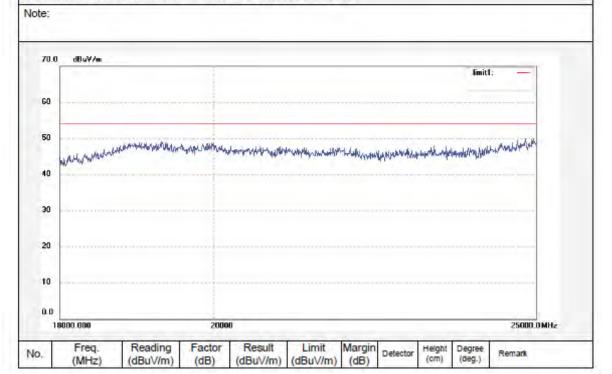
Job No.: RTTE #5918 Standard: FCC Class B 3M Radiated Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: 150M wireless usb adapter Mode: TX Channel 6 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD





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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

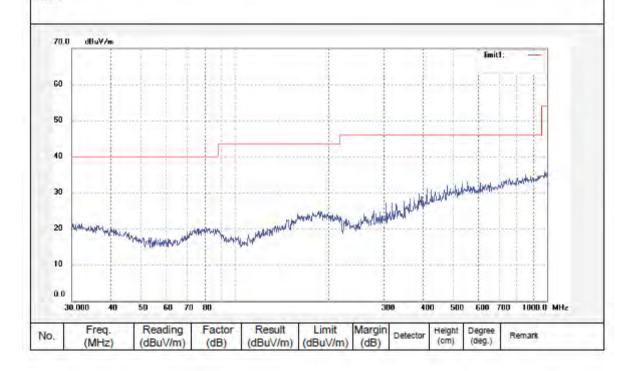
Power Source: DC 5V

Job No.: RTTE #5884 Standard: FCC Class B 3M Radiated Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT:

Note:







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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5885

Standard: FCC Class B 3M Radiated

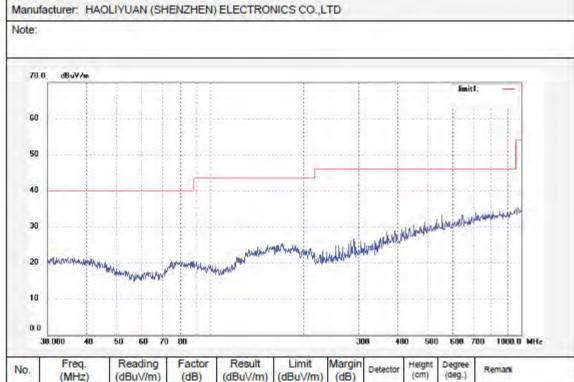
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11n) Model: WU106A

Polarization: Vertical Power Source: DC 5V Date: 2011/07/13 Time: 16:24:23

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5903

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

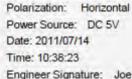
Temp.(C)/Hum.(%) 25 C / 50 % 150M wireless usb adapter EUT:

Mode: TX Channel 11 (802.11n)

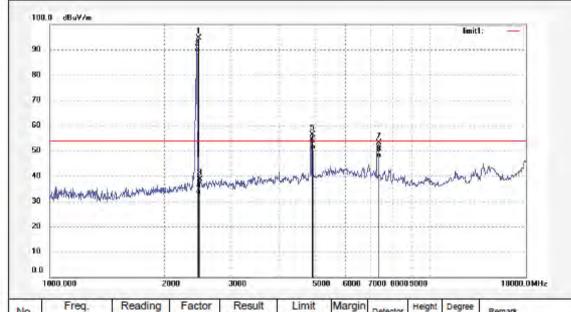
Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



Engineer Signature: Joe



Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBu\//m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
2462.034	102.10	-7.35	94.75			peak				
2462.034	96.11	-7.35	88.76	-2-		AVG				
2483,500	45.89	-7.37	38.52	74.00	-35.48	peak		-	4.5	
2483.500	39.93	-7.37	32.56	54.00	-21.44	AVG	1177		100	
4924.054	56.16	0.34	56.50	74.00	-17.50	peak				
4924.054	50.13	0.34	50.47	54.00	-3.53	AVG	7			
7368.079	49.80	3.34	53.14	74.00	-20.86	peak	1			
7368.079	43.83	3.34	47.17	54.00	-6.83	AVG	1.0			
	(MHz) 2462.034 2462.034 2483.500 2483.500 4924.054 4924.054 7368.079	(MHz) (dBuV/m) 2462.034 102.10 2462.034 96.11 2483.500 45.89 2483.500 39.93 4924.054 56.16 4924.054 50.13 7368.079 49.80	(MHz) (dBuV/m) (dB) 2462.034 102.10 -7.35 2462.034 96.11 -7.35 2483.500 45.89 -7.37 2483.500 39.93 -7.37 4924.054 56.16 0.34 4924.054 50.13 0.34 7368.079 49.80 3.34	(MHz) (dBuV/m) (dB) (dBuV/m) 2462.034 102.10 -7.35 94.75 2462.034 96.11 -7.35 88.76 2483.500 45.89 -7.37 38.52 2483.500 39.93 -7.37 32.56 4924.054 56.16 0.34 56.50 4924.054 50.13 0.34 50.47 7368.079 49.80 3.34 53.14	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dBuV/m) 2462.034 102.10 -7.35 94.75 - 2462.034 96.11 -7.35 88.76 - 2483.500 45.89 -7.37 38.52 74.00 2483.500 39.93 -7.37 32.56 54.00 4924.054 56.16 0.34 56.50 74.00 4924.054 50.13 0.34 50.47 54.00 7368.079 49.80 3.34 53.14 74.00	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dB) 2462.034 102.10 -7.35 94.75 - - 2462.034 96.11 -7.35 88.76 - - 2483.500 45.89 -7.37 38.52 74.00 -35.48 2483.500 39.93 -7.37 32.56 54.00 -21.44 4924.054 56.16 0.34 56.50 74.00 -17.50 4924.054 50.13 0.34 50.47 54.00 -3.53 7368.079 49.80 3.34 53.14 74.00 -20.86	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dB) description 2462.034 102.10 -7.35 94.75 - - peak 2462.034 96.11 -7.35 88.76 - - AVG 2483.500 45.89 -7.37 38.52 74.00 -35.48 peak 2483.500 39.93 -7.37 32.56 54.00 -21.44 AVG 4924.054 56.16 0.34 56.50 74.00 -17.50 peak 4924.054 50.13 0.34 50.47 54.00 -3.53 AVG 7368.079 49.80 3.34 53.14 74.00 -20.86 peak	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dBuV/m) (dB) Detector (cm) 2462.034 102.10 -7.35 94.75 - - peak 2462.034 96.11 -7.35 88.76 - - AVG 2483.500 45.89 -7.37 38.52 74.00 -35.48 peak 2483.500 39.93 -7.37 32.56 54.00 -21.44 AVG 4924.054 56.16 0.34 56.50 74.00 -17.50 peak 4924.054 50.13 0.34 50.47 54.00 -3.53 AVG 7368.079 49.80 3.34 53.14 74.00 -20.86 peak	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dB) December (cm) (deg.) 2462.034 102.10 -7.35 94.75 - - peak 2462.034 96.11 -7.35 88.76 - - AVG 2483.500 45.89 -7.37 38.52 74.00 -35.48 peak 2483.500 39.93 -7.37 32.56 54.00 -21.44 AVG 4924.054 56.16 0.34 56.50 74.00 -17.50 peak 4924.054 50.13 0.34 50.47 54.00 -3.53 AVG 7368.079 49.80 3.34 53.14 74.00 -20.86 peak	(MHz) (dBuV/m) (dB) (dBuV/m) (dBuV/m) (dB) decoration (cm) (deg.) Remark 2462.034 102.10 -7.35 94.75 - - peak - 2462.034 96.11 -7.35 88.76 - - AVG - AVG - 2483.500 45.89 -7.37 38.52 74.00 -35.48 peak - 2483.500 39.93 -7.37 32.56 54.00 -21.44 AVG - 4924.054 56.16 0.34 56.50 74.00 -17.50 peak - 4924.054 50.13 0.34 50.47 54.00 -3.53 AVG - 7368.079 49.80 3.34 53.14 74.00 -20.86 peak -



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V Date: 2011/07/14

Engineer Signature: Joe

Time: 10:33:57

Distance: 3m

lob No.: RTTE #5902

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

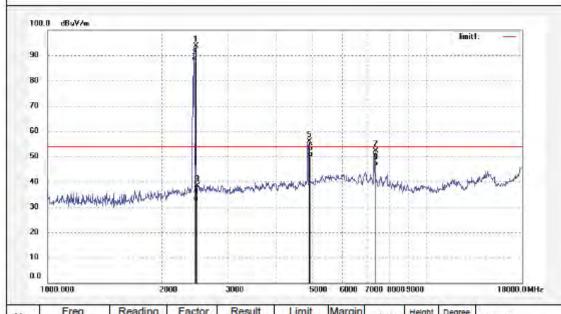
EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11n)

Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2462.034	100.96	-7.35	93.61	The Cap	10-01	peak				
2	2462.034	95.03	-7.35	87.68	17.911	Terri	AVG				
3	2483,500	45.72	-7.37	38.35	74.00	-35.65	peak		4 - 1		
4	2483,500	39.81	-7.37	32.44	54.00	-21.56	AVG				
5	4924.054	55.42	0.34	55.76	74.00	-18.24	peak				
6	4924.054	49,53	0.34	49.87	54.00	-4.13	AVG		11		
7	7386.079	48.69	3.39	52.08	74.00	-21.92	peak		1,		
8	7386.079	42.77	3.39	46.16	54.00	-7.84	AVG		H = 7		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #5920

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

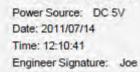
Temp.(C)/Hum.(%) 25 C / 50 % EUT: 150M wireless usb adapter

Mode: TX Channel 11 (802.11n)

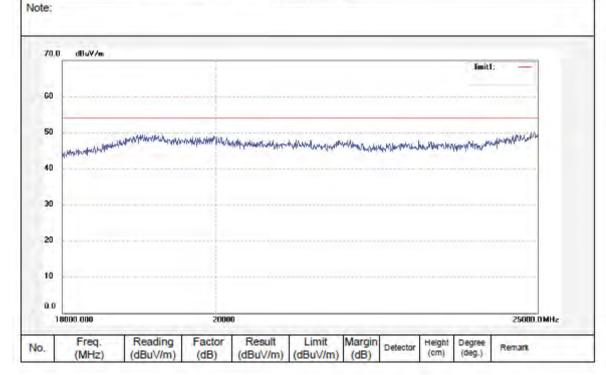
Model: WU106A

Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONICS CO.,LTD

-



Polarization: Horizontal





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Engineer Signature: Joe

Date: 2011/07/14

Time: 12:15:08

Distance: 3m

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Freq.

(MHz)

No.

Reading

(dBuV/m)

Factor

(dB)

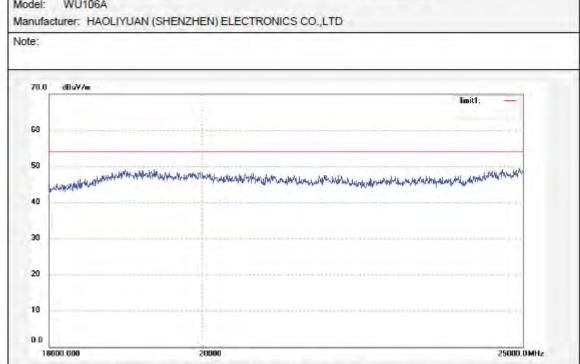
Result

(dBuV/m)

Temp.(C)/Hum.(%) 25 C / 50 %

150M wireless usb adapter Mode: TX Channel 11 (802.11n)

Model: WU106A



Limit

(dBuV/m)

Margin

(dB)

Height

Detector

Degree

Remark

10.AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

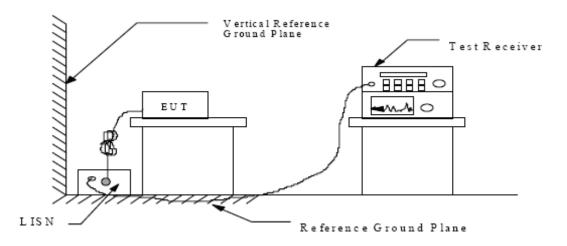
10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and simulators



(EUT: 150M wireless usb adapter)

10.1.2. Shielding Room Test Setup Diagram



(EUT: 150M wireless usb adapter)

10.2. The Emission Limit

10.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency	Limit d	$B(\mu V)$
(MHz)	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 - 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

^{*} Decreases with the logarithm of the frequency.

10.3. Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.3.1.150M wireless usb adapter (EUT)

Model Number : WU106A Serial Number : N/A

Manufacturer : HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

10.4. Operating Condition of EUT

10.4.1. Setup the EUT and simulator as shown as Section 10.1.

10.4.2. Turn on the power of all equipment.

10.4.3.Let the EUT work in TX (802.11b Channel Middle, 802.11g Channel Middle, 802.11n Channel Middle) mode measure it.

10.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

10.6. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Date of Test: July 13, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: AC 120V/60Hz

Test Mode: TX 802.11b Channel Middle Test Engineer: Pei

Frequency	Result	Limit	Margin	Detector	Line
(MHz)	(dBµV)	(dBµV)	(dB)		
0.198359	52.70	63.7	-11.0	QP	
0.298051	46.00	60.3	-14.3	QP	
1.593857	34.80	56.0	-21.2	QP	NT 4 1
0.198359	40.10	53.7	-13.6	AV	Neutral
0.596975	32.80	46.0	-13.2	AV	
1.593857	29.30	46.0	-16.7	AV	
0.198359	51.50	63.7	-12.2	QP	
0.298051	44.20	60.3	-16.1	QP	
0.596975	40.20	56.0	-15.8	QP	T .
0.596975	33.20	46.0	-12.8	AV	Live
1.593857	30.80	46.0	-15.2	AV	
1.692213	30.40	46.0	-15.6	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

Date of Test: July 13, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: AC 120V/60Hz

Test Mode: TX 802.11g Channel Middle Test Engineer: Pei

Frequency (MHz)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector	Line
0.198359	52.50	63.7	-11.2	QP	
0.298051	45.70	60.3	-14.6	QP	
0.596975	37.50	56.0	-18.5	QP	27 1
0.198359	39.90	53.7	-13.8	AV	Neutral
0.599363	32.90	46.0	-13.1	AV	
1.593857	25.60	46.0	-20.4	AV	
0.199152	50.60	63.6	-13.0	QP	
0.299243	43.70	60.3	-16.6	QP	
0.599363	40.20	56.0	-15.8	QP	т.
0.599363	33.30	46.0	-12.7	AV	Live
1.600232	31.00	46.0	-15.0	AV	
1.698981	30.70	46.0	-15.3	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

Date of Test: July 13, 2011 Temperature: 25°C

EUT: 150M wireless usb adapter Humidity: 50%

Model No.: WU106A Power Supply: AC 120V/60Hz

Test Mode: TX 802.11n Channel Middle Test Engineer: Pei

Frequency (MHz)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector	Line
0.199152	52.20	63.6	-11.4	QP	
0.299243	45.70	60.3	-14.6	QP	
1.600232	35.20	56.0	-20.8	QP	
0.200748	39.50	53.6	-14.1	AV	Neutral
0.599363	33.00	46.0	-13.0	AV	
1.600232	29.70	46.0	-16.3	AV	
0.199152	50.40	63.6	-13.2	QP	
0.299243	43.50	60.3	-16.8	QP	
0.599363	40.10	56.0	-15.9	QP	
0.599363	33.40	46.0	-12.6	AV	Live
1.600232	31.20	46.0	-14.8	AV	
16.208260	36.00	50.0	-14.0	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

CONDUCTED EMISSION STANDARD FCC PART 15 B

150M wireless usb adapter M/N:WU106A EUT: HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD Manufacturer:

Operating Condition: TX Channel 6 (802.11b)

Test Site: 1#Shielding Room

Operator: Joe Test Specification: L 120V/60Hz

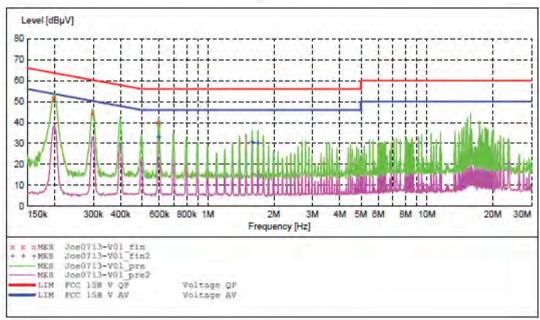
Comment:

Start of Test: 7/13/2011 / 9:33:56AM

SCAN TABLE: "V 150K-30MHz fin" Short Description: SUB_STD_VTERM2 1.70 Step Start IF

Detector Meas. Stop Transducer Frequency Frequency Width Time Bandw.

150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008 Average



MEASUREMENT RESULT: "Joe0713-V01 fin"

7/13/2011 9:3	6AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198359	51.50	11.2	63.7	12.2	QP	LI	GND
0.298051 0.596975	44.20	11.6 12.0	60.3 56.0	16.1 15.8		L1 L1	GND

MEASUREMENT RESULT: "Joe0713-V01 fin2"

7/13/2011 9:3	6AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.596975	33.20	12:0	46.0	12.8	AV	LI	GND
1.593857	30.80	11.7	46.0	15.2	AV	LI	GND
1.692213	30.40	11.7	46.0	15.6	AV	LI	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

150M wireless usb adapter M/N:WU106A EUT: HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD Manufacturer:

Operating Condition: TX Channel 6 (802.11b)

Test Site: 1#Shielding Room Operator: Joe Test Specification: N 120V/60Hz

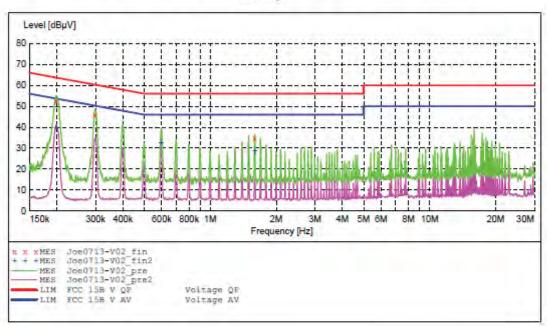
Comment:

Start of Test: 7/13/2011 / 9:37:37AM

SCAN TABLE: "V 150K-30MHz fin"
Short Description: SUB STD_VTERM2 1.70 Detector Meas. IF Time Bandw. Step Transducer

Start Stop Step Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0713-V02 fin"

7/13/2011 9:4	OAM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198359	52.70	11.2	63.7	11.0	QP	N	GND
0.298051 1.593857	46.00	11.6	60.3	14.3	QP QP	N N	GND

MEASUREMENT RESULT: "Joe0713-V02 fin2"

7/13/2011 9:4	OAM						
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.198359	40.10	11.2	53.7	13.6	AV	N	GND
0.596975	32.80	12.0	46.0	13.2	AV	N	GND
1.593857	29.30	11.7	46.0	16.7	AV	N	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

150M wireless usb adapter M/N:WU106A HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD Manufacturer:

Operating Condition: TX Channel 6 (802.11g) 1#Shielding Room

Test Site: Operator: Joe

Test Specification: N 120V/60Hz

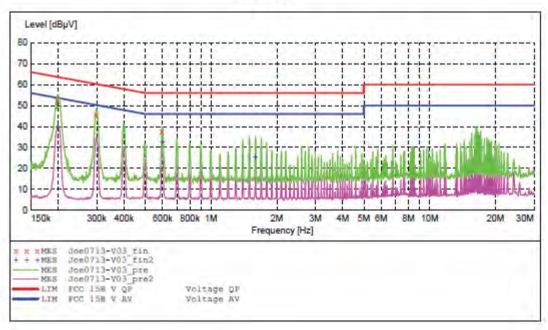
Comment: Start of Test: 7/13/2011 / 9:40:43AM

SCAN TABLE: "V 150K-30MHz fin"
Short Description: SUB STD VTERM2 1.70

Start Stop Detector Meas. Step IF Transducer

Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % Time Bandw. QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0713-V03 fin"

7/13/2011 9:4	3AM						
Frequency MHz	Level dBuV		Limit dBuV	Margin dB	Detector	Line	PE
0.198359	52.50	11.2	63.7	11.2	QP	N	GND
0.298051	45.70 37.50	11.6 12.0	60.3 56.0			N N	GND

MEASUREMENT RESULT: "Joe0713-V03 fin2"

7/13/2011 9:4	3AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198359	39.90	11.2	53.7	13.8	AV	N	GND
0.599363	32.90	12.0	46.0	13.1	AV	N	GND
1.593857	25.60	11.7	46.0	20.4	AV	N	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

150M wireless usb adapter M/N:WU106A Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Operating Condition: TX Channel 6 (802.11g)

Test Site: 1#Shielding Room

Operator: Joe

Test Specification: L 120V/60Hz

Comment:

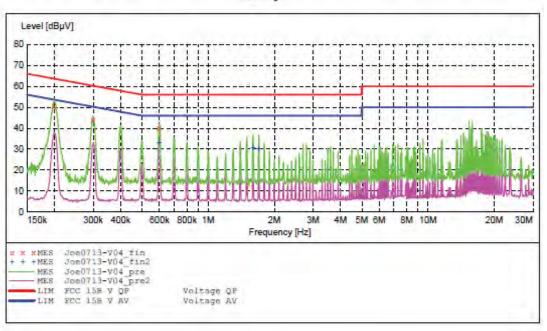
Start of Test: 7/13/2011 / 9:44:13AM

SCAN TABLE: "V 150K-30MHz fin" Short Description: _SUB_STD_VTERM2 1.70

Start Stop Step Detector Meas. IF Transducer

Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % Bandw. Time NSLK8126 2008 QuasiPeak 1.0 s 9 kHz

Average



MEASUREMENT RESULT: "Joe0713-V04 fin"

7/13/2011 9:4	6AM						
Frequency MHz	Level dBuV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.199152	50.60	11.2	63.6	13.0	QP	Ll	GND
0.299243	43.70	11.6		16.6		L1 L1	GND

MEASUREMENT RESULT: "Joe0713-V04 fin2"

7/13/2011 9:4	6AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.599363	33.30	12.0	46.0	12.7	AV	LI	GND
1.600232	31.00	11.7	46.0	15.0	AV	Ll	GND
1.698981	30.70	11.7	46.0	15.3	AV	Ll	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

150M wireless usb adapter M/N:WU106A EUT: HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD Manufacturer:

Operating Condition: TX Channel 6 (802.11n) Test Site: 1#Shielding Room

Operator: Joe

Test Specification: L 120V/60Hz

Sample No.:102541 Report No.:ATE20102255 7/13/2011 / 9:47:16AM Comment:

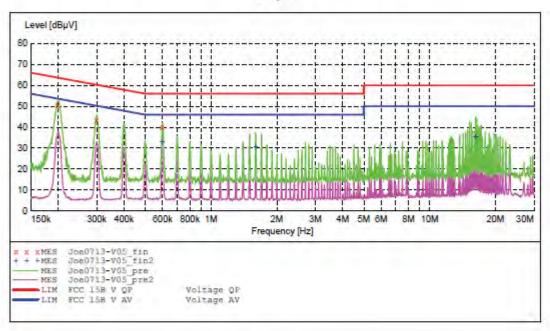
Start of Test:

SCAN TABLE: "V 150K-30MHz fin" Short Description: SUB_STD_VTERM2 1.70

IF' Step Start Stop Detector Meas. Transducer Frequency Frequency Width Time Bandw.

150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0713-V05 fin"

7/13/2011 9	:49AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.199152	50.40	11.2	63.6	13.2	QP	L1	GND
0.299243		11.6 12.0	60.3 56.0	16.8 15.9		L1 L1	GND

MEASUREMENT RESULT: "Joe0713-V05 fin2"

7/13/2011 9:4	9AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.599363	33.40	12.0	46.0	12.6	AV	L1	GND
1.600232	31.20	11.7	46.0	14.8	AV	L1	GND
16.208260	36.00	11.2	50.0	14.0	AV	L1	GND

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: 150M wireless usb adapter M/N:WU106A Manufacturer: HAOLIYUAN (SHENZHEN) ELECTRONIC CO., LTD

Operating Condition: TX Channel 6 (802.11n) Test Site: 1#Shielding Room

Operator: Joe

Test Specification: N 120V/60Hz

Comment:

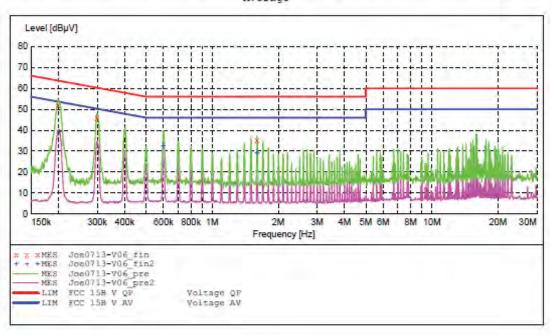
Start of Test: 7/13/2011 / 9:50:32AM

SCAN TABLE: "V 150K-30MHz fin" Short Description: _SUB_STD_VTERM2 1.70

Detector Meas. Start Stop Step IF Transducer

Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % Time Bandw. QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0713-V06 fin"

7/13/2011 9:5							
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.199152	52.20	11.2	63.6	11.4	QP	N	GND
0.299243	45.70	11.6	60.3	14.6	_	N	GND
1 600232	35 20	11 7	56 0	20 8	OP	N	GND.

MEASUREMENT RESULT: "Joe0713-V06 fin2"

7/13/2011 9:5	2AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.200748	39.50	11.2	53.6	14.1	AV	N	GND
0.599363	33.00	12.0	46.0	13.0	AV	N	GND
1.600232	29.70	11.7	46.0	16.3	AV	N	GND

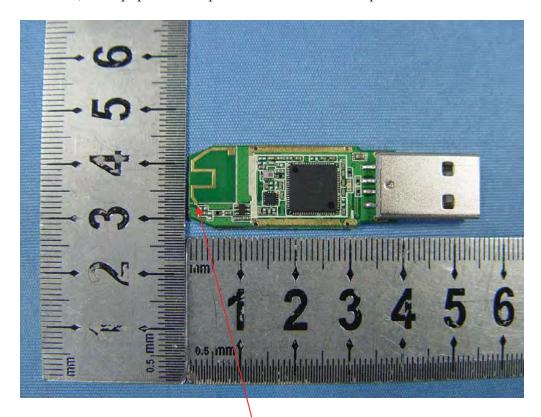
11.ANTENNA REQUIREMENT

11.1.The Requirement

According to Section 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.

11.2.Antenna Construction

Device is equipped with unique antenna, which is formed by a copper trace on the PCB. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna