

APPLICATION CERTIFICATION FCC Part 15C  
On Behalf of  
Shenzhen MAXIN Technology Industry Co., Ltd.

2.4G Wireless mouse  
Model No.: M928G,M925G,M930G,M914G,M925BT

FCC ID: 2ABX3-M928G

Prepared for : Shenzhen MAXIN Technology Industry Co., Ltd.  
Address : Block C3, East Xueziwei Industrial Zone, Yabian,  
Shajing, Baoan, Shenzhen, China  
Prepared by : ACCURATE TECHNOLOGY CO., LTD  
Address : F1, Bldg. A, Chan Yuan New Material Port, Keyuan  
Rd. Science & Industry Park, Nan Shan, Shenzhen,  
Guangdong P.R. China

Tel: (0755) 26503290  
Fax: (0755) 26503396

Report Number : ATE20140158  
Date of Test : Feb 21-Mar 04, 2014  
Date of Report : Mar 04, 2014

## TABLE OF CONTENTS

Description	Page
Test Report Certification	
<b>1. GENERAL INFORMATION.....</b>	<b>4</b>
1.1. Description of Device (EUT).....	4
1.2. Special Accessory and Auxiliary Equipment.....	4
1.3. Description of Test Facility .....	5
1.4. Measurement Uncertainty.....	5
<b>2. MEASURING DEVICE AND TEST EQUIPMENT .....</b>	<b>6</b>
<b>3. OPERATION OF EUT DURING TESTING .....</b>	<b>7</b>
3.1. Operating Mode.....	7
3.2. Configuration and peripherals .....	7
<b>4. TEST PROCEDURES AND RESULTS .....</b>	<b>8</b>
<b>5. 20DB BANDWIDTH MEASUREMENT.....</b>	<b>9</b>
5.1. Block Diagram of Test Setup.....	9
5.2. The Requirement For Section 15.215(c).....	9
5.3. Operating Condition of EUT .....	9
5.4. Test Procedure .....	9
5.5. Test Result .....	10
<b>6. BAND EDGE COMPLIANCE TEST .....</b>	<b>12</b>
6.1. Block Diagram of Test Setup.....	12
6.2. The Requirement For Section 15.249.....	12
6.3. EUT Configuration on Measurement .....	12
6.4. Operating Condition of EUT .....	13
6.5. Test Procedure .....	13
6.6. Test Result .....	13
<b>7. RADIATED SPURIOUS EMISSION TEST .....</b>	<b>19</b>
7.1. Block Diagram of Test Setup.....	19
7.2. The Limit For Section 15.249.....	20
7.3. Restricted bands of operation .....	20
7.4. Configuration of EUT on Measurement .....	21
7.5. Operating Condition of EUT .....	21
7.6. Test Procedure .....	21
7.7. The Field Strength of Radiation Emission Measurement Results .....	22
<b>8. ANTENNA REQUIREMENT.....</b>	<b>35</b>
8.1. The Requirement .....	35
8.2. Antenna Construction .....	35

## Test Report Certification

Applicant& address : Shenzhen MAXIN Technology Industry Co., Ltd.  
Block C3, East Xueziwei Industrial Zone, Yabian, Shajing,  
Baoan, Shenzhen, China

Manufacturer& address : Shenzhen MAXIN Technology Industry Co., Ltd.  
Block C3, East Xueziwei Industrial Zone, Yabian, Shajing,  
Baoan, Shenzhen, China

Product : 2.4G Wireless mouse

Model No. : M928G,M925G,M930G,M914G,M925BT

(Note: These samples are same except for the model number is different for the marketing requirement. So we prepare the M928G for test.)

Measurement Procedure Used:

### **FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.4: 2009**

The EUT was tested according to FCC 47CFR 15.249 for compliance to FCC 47CFR 15.249 requirements

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 15.249 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 : Feb 21-Mar 04, 2014

Prepared by :

(Eric, Engineer)

Approved & Authorized Signer :

( Sean Liu, Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT	:	2.4G Wireless mouse
Model Number	:	M928G,M925G,M930G, M914G,M925BT (We hereby state that these models are identical in interior structure, electrical circuits and components, just model names are different for the marketing requirement. Therefore only model M928G is tested for tests)
Power Supply	:	3V DC ( “AAA” batteries 2× )
Operate Frequency	:	2402-2480MHz
Applicant	:	Shenzhen MAXIN Technology Industry Co., Ltd.
Address	:	Block C3, East Xueziwei Industrial Zone, Yabian, Shajing, Baoan, Shenzhen, China
Manufacturer	:	Shenzhen MAXIN Technology Industry Co., Ltd.
Address	:	Block C3, East Xueziwei Industrial Zone, Yabian, Shajing, Baoan, Shenzhen, China
Date of sample received	:	Feb 21, 2014
Date of Test	:	Feb 21-Mar 04, 2014

### 1.2. Special Accessory and Auxiliary Equipment

N/A

### 1.3. 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

### 1.4. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2  
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, 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 dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 11, 2014	Jan. 10, 2015
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 11, 2014	Jan. 10, 2015
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 11, 2014	Jan. 10, 2015
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 11, 2014	Jan. 10, 2015
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2014	Jan. 14, 2015
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan. 15, 2014	Jan. 14, 2015
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 11, 2014	Jan. 10, 2015
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 11, 2014	Jan. 10, 2015
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 11, 2014	Jan. 10, 2015
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 11, 2014	Jan. 10, 2015

### 3. OPERATION OF EUT DURING TESTING

#### 3.1.Operating Mode

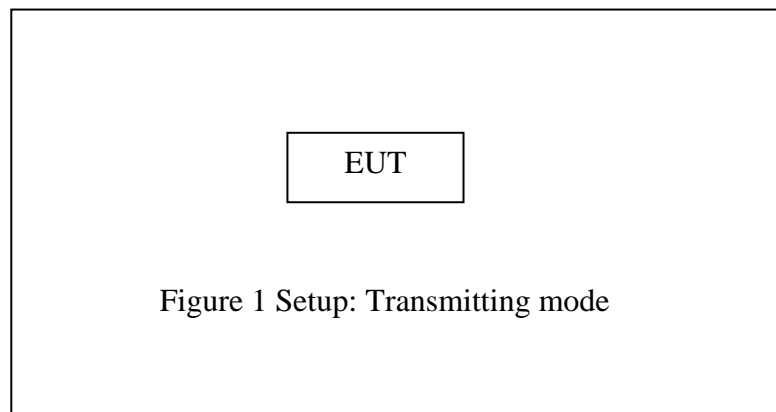
The mode is used: **Transmitting mode**

Low Channel: 2402MHz

Middle Channel: 2441MHz

High Channel: 2480MHz

#### 3.2.Configuration and peripherals



#### 4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.215(c)	20dB Bandwidth	Compliant
Section 15.249(d)	Band Edge Compliance Test	Compliant
Section 15.205(a), Section 15.209(a), Section 15.249, Section 15.35	Radiated Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	N/A
Section 15.203	Antenna Requirement	Compliant



## 5. 20DB BANDWIDTH MEASUREMENT

### 5.1. Block Diagram of Test Setup



### 5.2. The Requirement For Section 15.215(c)

The bandwidth of a frequency hopping channel is the 20 dB emission bandwidth, measured with the hopping stopped. The system RF bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The hopset shall be such that the near-term distribution of frequencies appears random, with sequential hops randomly distributed in both direction and magnitude of change in the hopset while the long-term distribution appears evenly distributed.

### 5.3. Operating Condition of EUT

5.3.1. Setup the EUT and simulator as shown as Section 5.1.

5.3.2. Turn on the power of all equipment.

5.3.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480 MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

### 5.4. Test Procedure

5.4.1. Place the EUT on the table and set it in transmitting mode.

5.4.2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

5.4.3. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz, Detector function=peak, Trace=max hold, Sweep=auto.

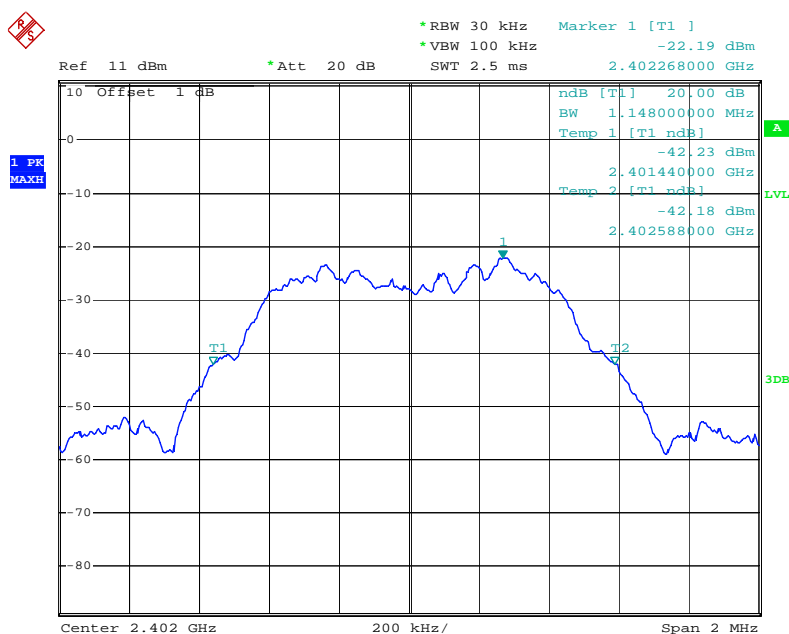
5.4.4. Set the measured low, middle and high frequency and test 20dB bandwidth with spectrum analyzer.

## 5.5. Test Result

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2402	1.148
Middle	2441	1.164
High	2480	1.172

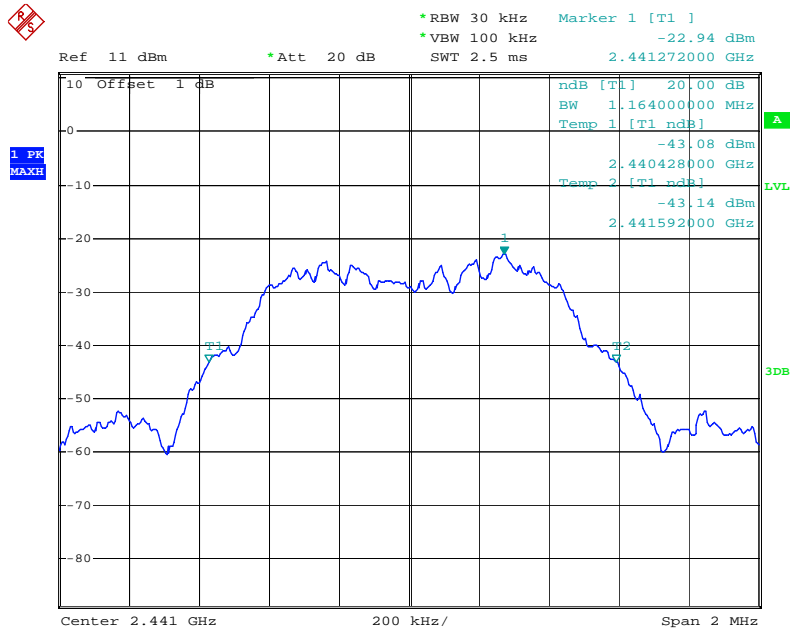
The spectrum analyzer plots are attached as below.

### Low channel



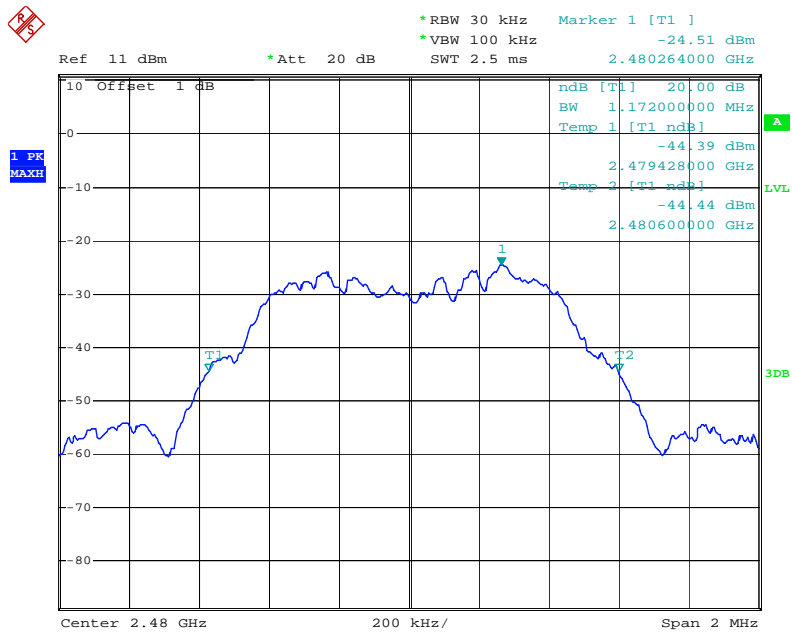
Date: 3.MAR.2014 09:54:27

## Middle channel



Date: 3.MAR.2014 09:54:57

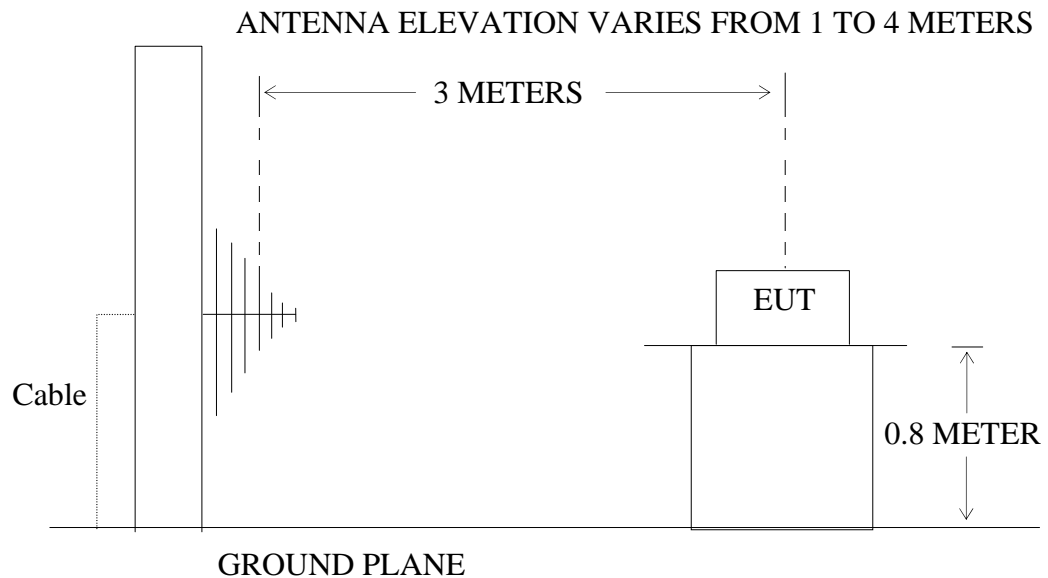
## High channel



Date: 3.MAR.2014 09:55:35

## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Block Diagram of Test Setup



### 6.2. The Requirement For Section 15.249

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 A8.4(4), the attenuation required 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).

### 6.3. EUT Configuration on Measurement

The 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.

## 6.4. 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 2402-2480 MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

## 6.5. Test Procedure

Radiate Band Edge:

6.5.1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

6.5.2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

6.5.3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

6.5.4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

6.5.5. The band edges was measured and recorded.

## 6.6. Test Result

## Radiated Band Edge Result

Date of Test:	Feb 28, 2014	Temperature:	25°C
EUT:	2.4G Wireless mouse	Humidity:	50%
Model No.:	M928G	Power Supply:	DC 3V
Test Mode:	TX (2402MHz) GFSK	Test Engineer:	Ricky

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2495.760	--	47.50	-6.76	--	40.74	54.00	74.00	--	-33.26	Vertical
2400.000	--	43.83	-6.76	--	37.07	54.00	74.00	--	-36.93	Vertical
2337.56	--	46.18	-6.91	--	39.27	54.00	74.00	--	-34.73	Horizontal
2400.00	--	44.27	-6.76	--	37.51	54.00	74.00	--	-36.49	Horizontal

Date of Test:	Feb 28, 2014	Temperature:	25°C
EUT:	2.4G Wireless mouse	Humidity:	50%
Model No.:	M928G	Power Supply:	DC 3V
Test Mode:	TX (2480MHz) GFSK	Test Engineer:	Ricky

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	--	44.75	-6.54	--	38.21	54.00	74.00	--	-35.79	Vertical
2486.563	--	45.83	-6.53	--	39.30	54.00	74.00	--	-34.70	Vertical
2483.500	--	45.01	-6.54	--	38.47	54.00	74.00	--	-35.53	Horizontal
2490.040	--	47.16	-6.52	--	40.64	54.00	74.00	--	-33.36	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.
4. The average measurement was not performed when peak measured data under the limit of average detection.

Job No.: RICKY #449

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization:Horizontal

Power Source: DC 3V

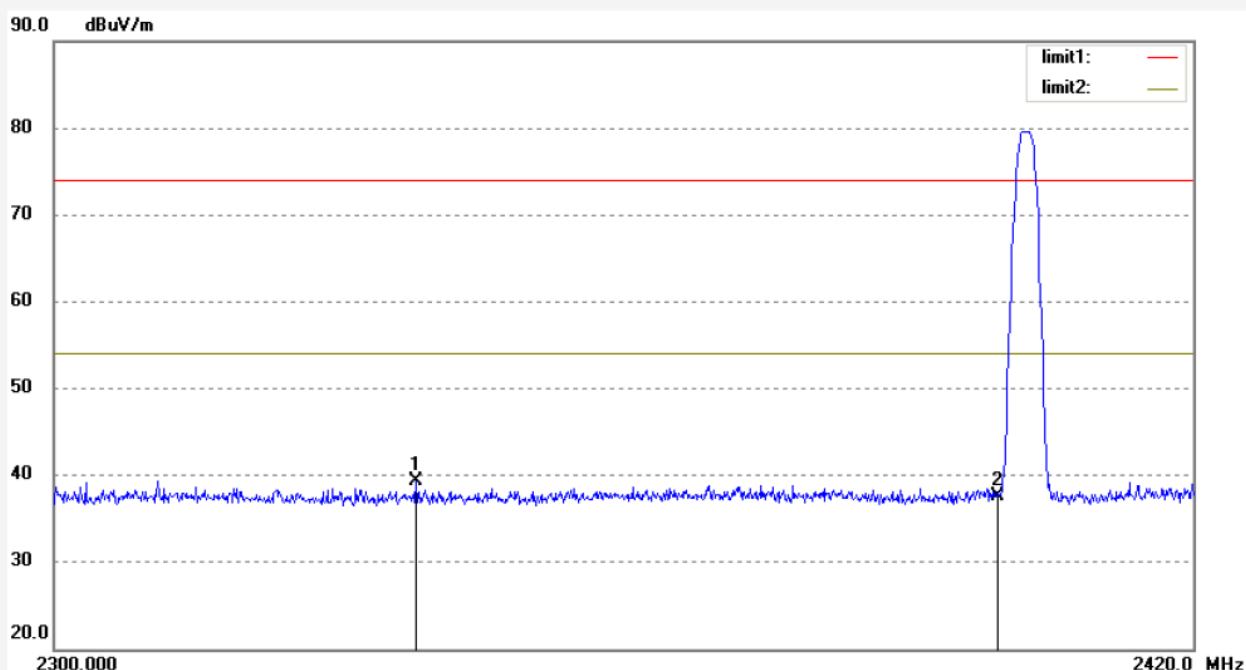
Date: 14/02/28/

Time: 9/22/44

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2337.560	46.18	-6.91	39.27	74.00	-34.73	peak			
2	2400.000	44.27	-6.76	37.51	74.00	-36.49	peak			

Job No.: RICKY #448

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

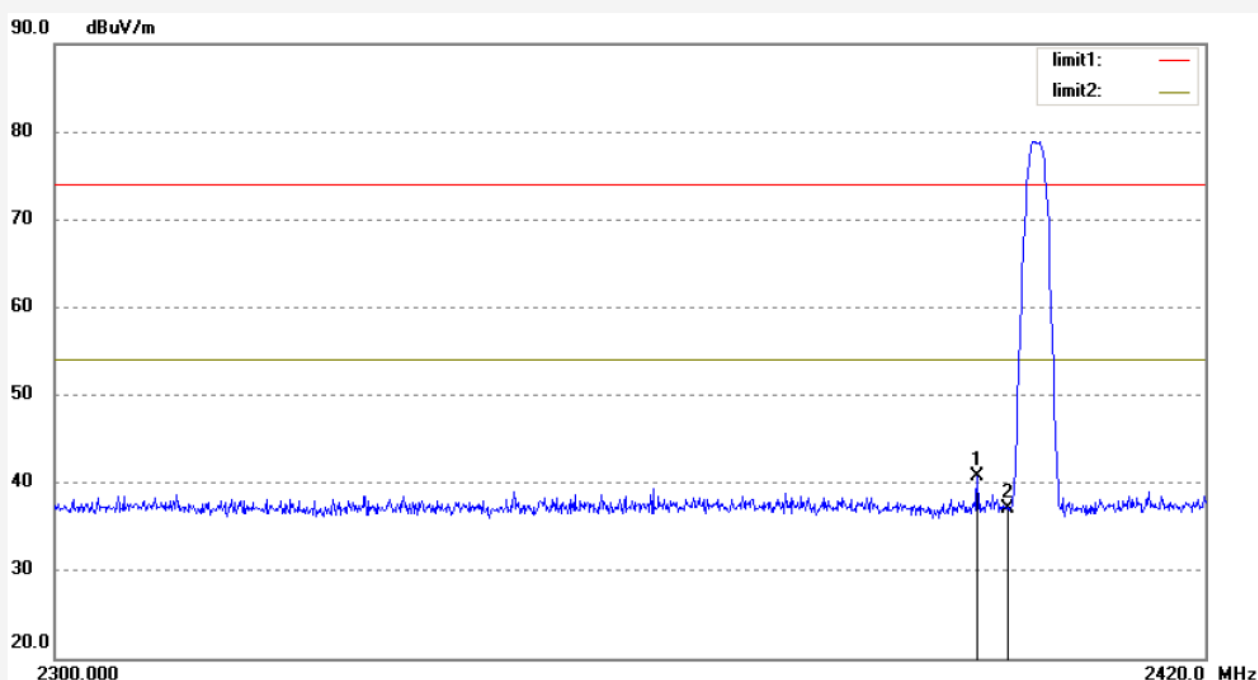
Date: 14/02/28/

Time: 9/19/31

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2395.760	47.50	-6.76	40.74	74.00	-33.26	peak			
2	2400.000	43.83	-6.76	37.07	74.00	-36.93	peak			



Job No.: RICKY #447

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization:Horizontal

Power Source: DC 3V

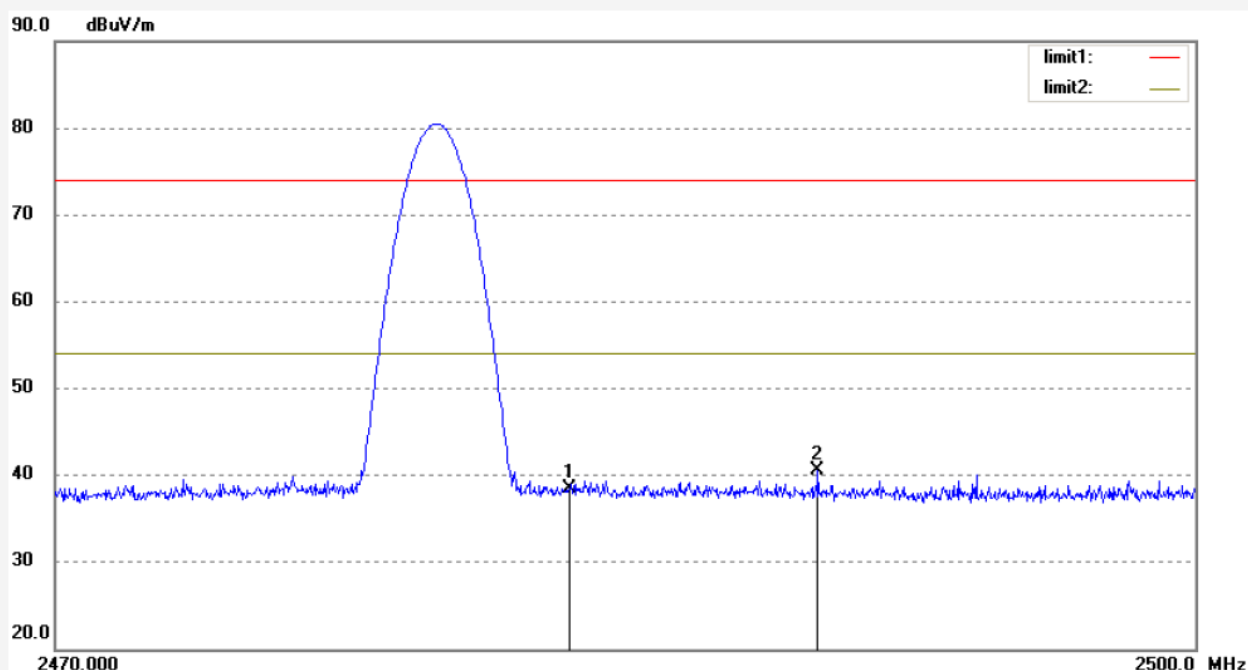
Date: 14/02/28/

Time: 9/17/13

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.01	-6.54	38.47	74.00	-35.53	peak			
2	2490.040	47.16	-6.52	40.64	74.00	-33.36	peak			

Job No.: RICKY #446

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

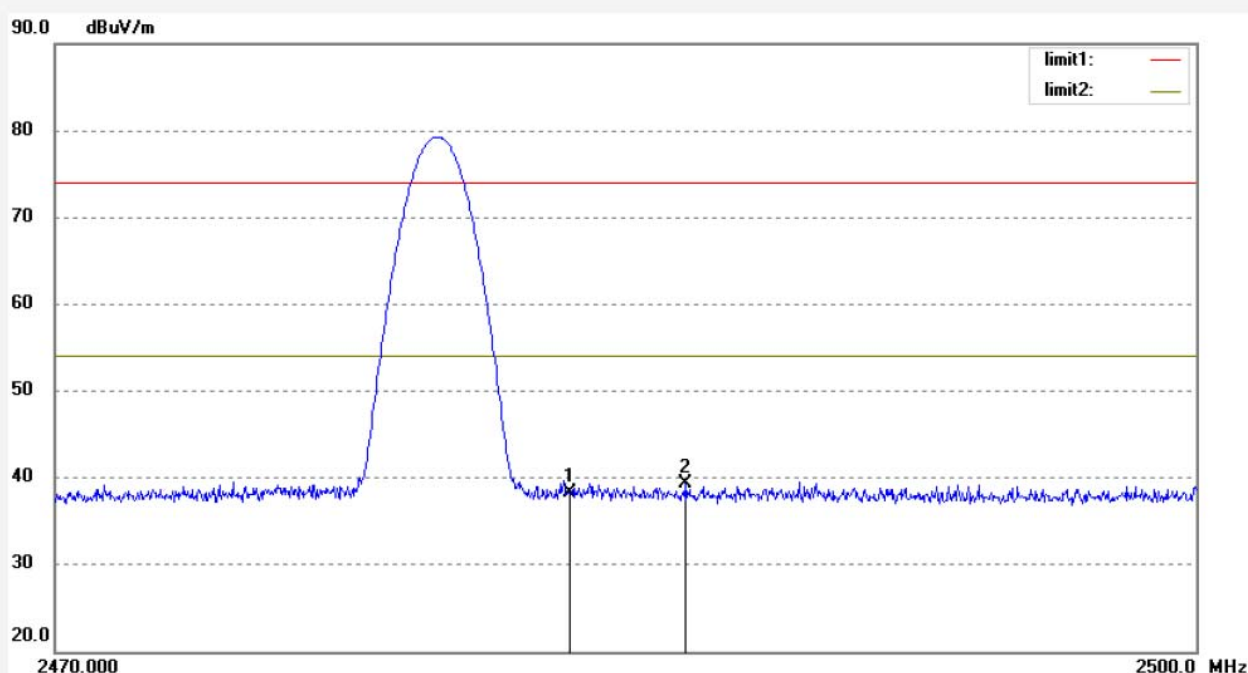
Date: 14/02/28/

Time: 9/15/00

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.75	-6.54	38.21	74.00	-35.79	peak			
2	2486.563	45.83	-6.53	39.30	74.00	-34.70	peak			

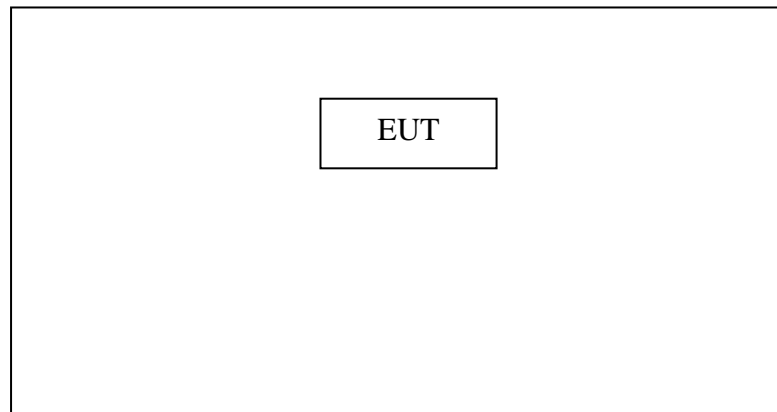
Note:

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.
4. The average measurement was not performed when peak measured data under the limit of average detection.

## 7. RADIATED SPURIOUS EMISSION TEST

### 7.1. Block Diagram of Test Setup

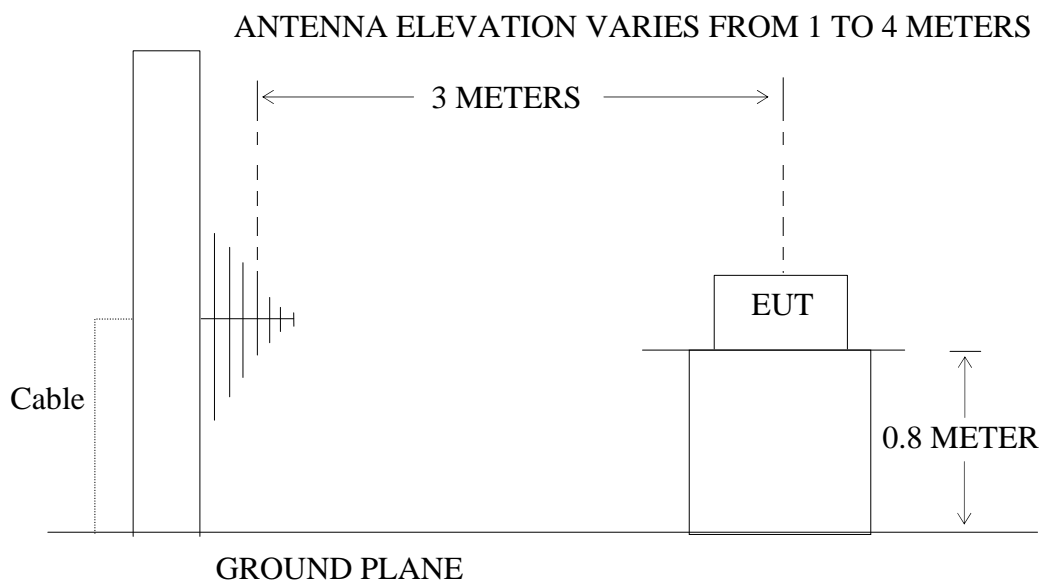
#### 7.1.1. Block diagram of connection between the EUT and peripherals



Setup: Transmitting mode

(EUT: M928G)

#### 7.1.2. Semi-Anechoic Chamber Test Setup Diagram



## 7.2.The Limit For Section 15.249

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 A8.4(4), 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).

## 7.3.Restricted bands of operation

### 7.3.1.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:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 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	( <sup>2</sup> )
13.36-13.41			

<sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510

<sup>2</sup>Above 38.6

(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 Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

#### 7.4.Configuration of EUT on Measurement

The 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.

#### 7.5.Operating Condition of EUT

7.5.1.Setup the EUT and simulator as shown as Section 7.1.

7.5.2.Turn on the power of all equipment.

7.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480 MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

#### 7.6.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: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9 kHz to 25GHz is checked.

The final measurement in band 9-90 kHz, 110-490 kHz 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

## 7.7.The Field Strength of Radiation Emission Measurement Results

### PASS.

#### Fundamental Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2402.00	79.77	83.65	-6.75	73.02	76.90	94.00	114.00	-20.98	-37.10	Vertical
2402.00	81.97	86.24	-6.76	75.21	79.48	94.00	114.00	-18.79	-34.52	Horizontal
2441.00	82.01	86.64	-6.64	75.37	79.97	94.00	114.00	-18.63	-34.03	Vertical
2441.00	81.65	85.94	-6.64	75.01	79.30	94.00	114.00	-18.99	-34.70	Horizontal
2480.00	82.88	87.13	-6.55	76.33	80.58	94.00	114.00	-17.67	-33.42	Vertical
2480.00	82.97	87.28	-6.55	76.42	80.73	94.00	114.00	-17.58	-33.27	Horizontal

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

2. \*: Denotes restricted band of operation.

3. The EUT is tested radiation emission at Low, Middle, High channel in three axes. The worst emissions are reported in all channels.

4. The radiation emissions from 18-25GHz are not reported, because the test values lower than the limits of 20dB.

5. The average measurement was not performed when peak measured data under the limit of average detection.



Below 1G



## ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RICKY #495

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

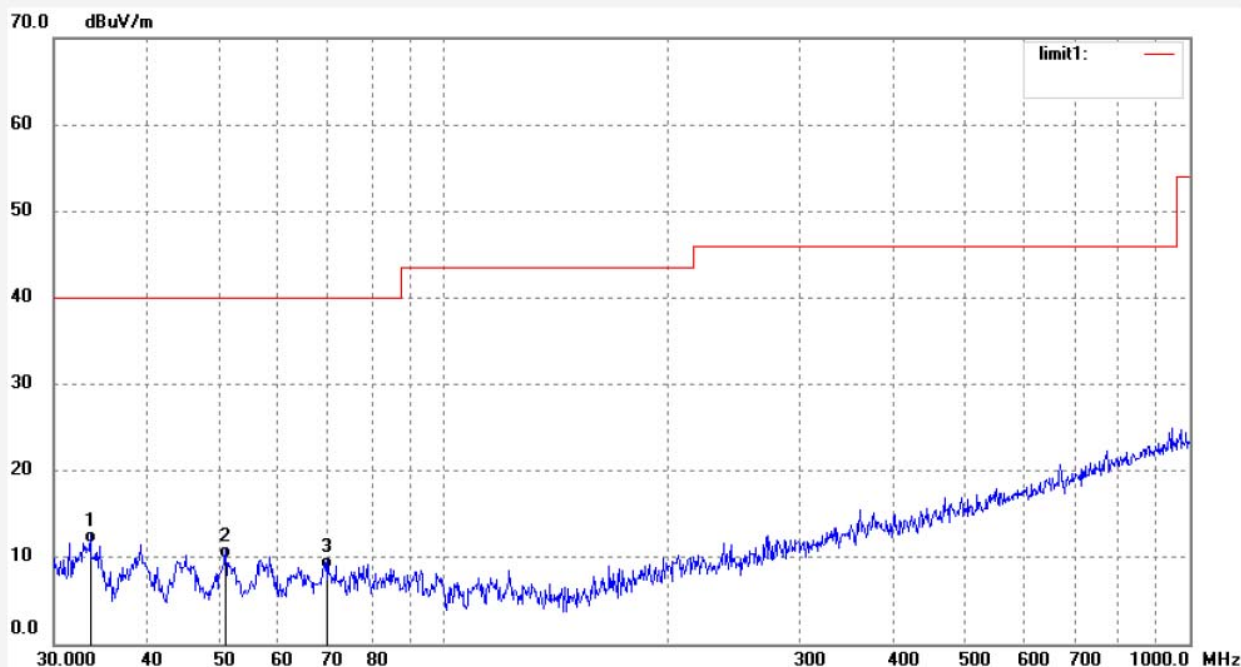
Date: 14/03/01/

Time: 9/26/45

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.5624	30.71	-19.01	11.70	40.00	-28.30	QP			
2	50.9420	30.69	-20.76	9.93	40.00	-30.07	QP			
3	69.8450	29.98	-21.34	8.64	40.00	-31.36	QP			

Job No.: RICKY #494

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

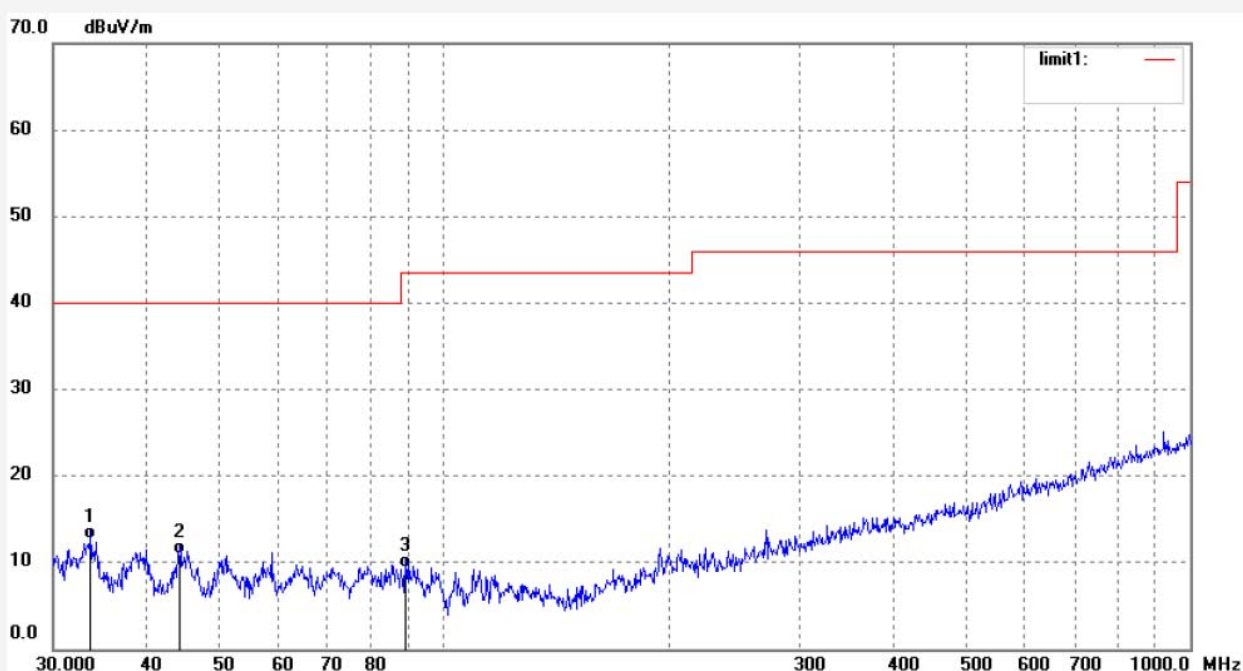
Date: 14/03/01/

Time: 9/26/13

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.6802	31.82	-19.05	12.77	40.00	-27.23	QP			
2	44.2752	31.26	-20.35	10.91	40.00	-29.09	QP			
3	88.9639	31.07	-21.66	9.41	43.50	-34.09	QP			



Job No.: RICKY #493

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2441MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

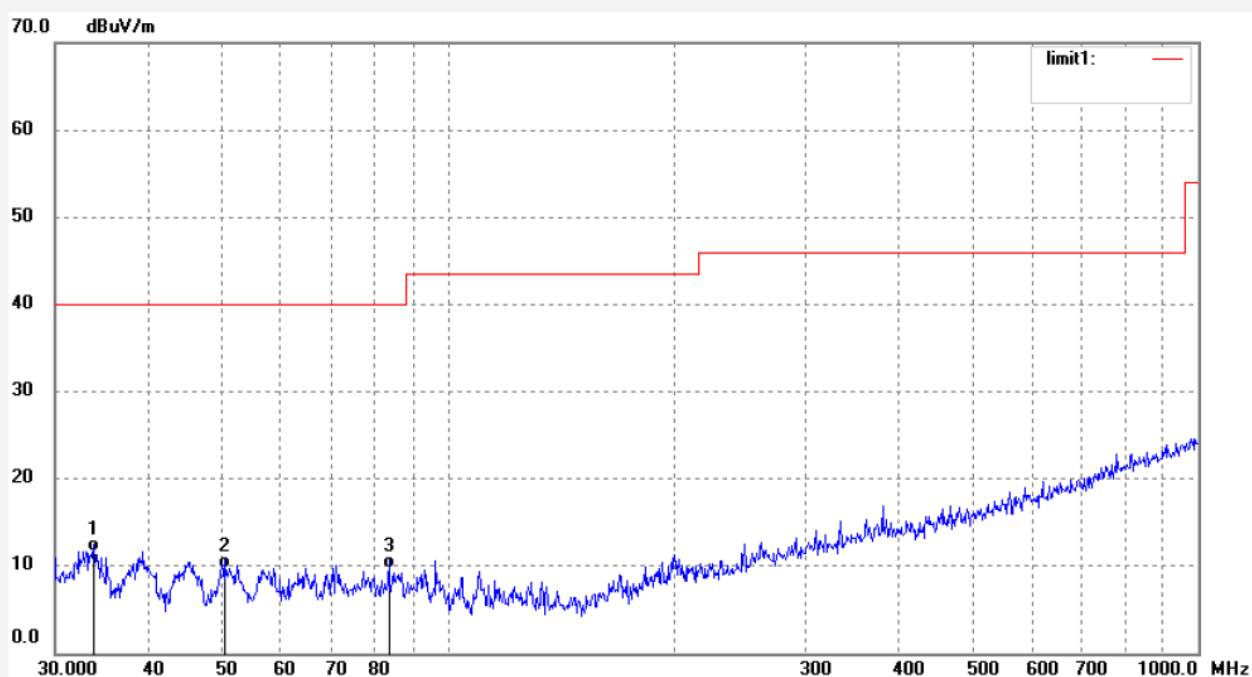
Date: 14/03/01/

Time: 9/25/29

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.7986	30.69	-19.10	11.59	40.00	-28.41	QP			
2	50.4089	30.48	-20.73	9.75	40.00	-30.25	QP			
3	83.5222	31.19	-21.50	9.69	40.00	-30.31	QP			

Job No.: RICKY #492

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2441MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

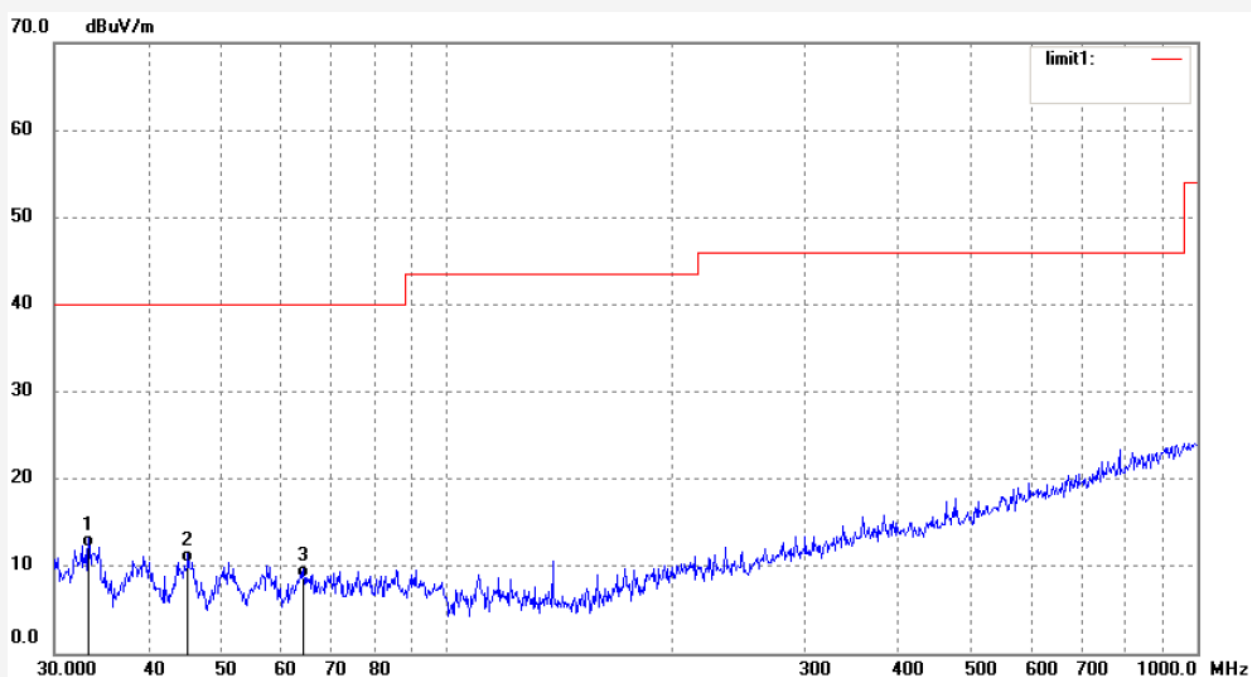
Date: 14/03/01/

Time: 9/24/40

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.3279	31.09	-18.94	12.15	40.00	-27.85	QP			
2	45.2166	30.83	-20.39	10.44	40.00	-29.56	QP			
3	64.4331	29.85	-21.17	8.68	40.00	-31.32	QP			

Job No.: RICKY #491

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

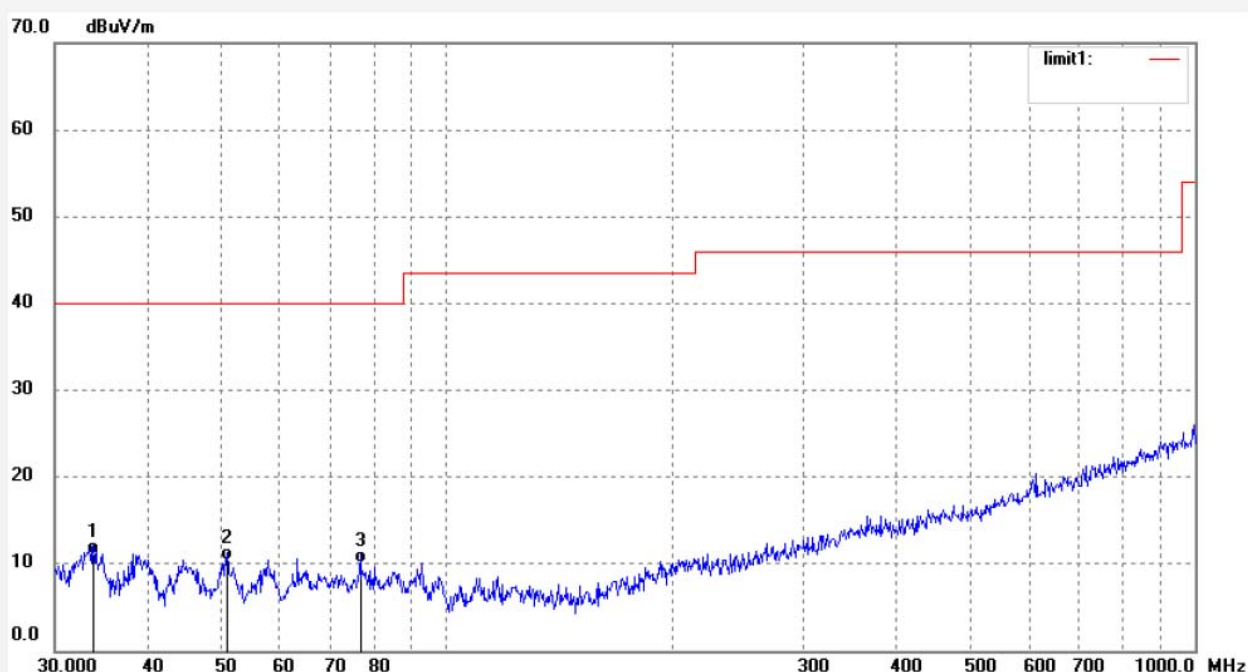
Date: 14/03/01/

Time: 9/23/49

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.7986	30.23	-19.10	11.13	40.00	-28.87	QP			
2	50.9420	31.11	-20.76	10.35	40.00	-29.65	QP			
3	76.7808	31.62	-21.54	10.08	40.00	-29.92	QP			

Job No.: RICKY #490

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

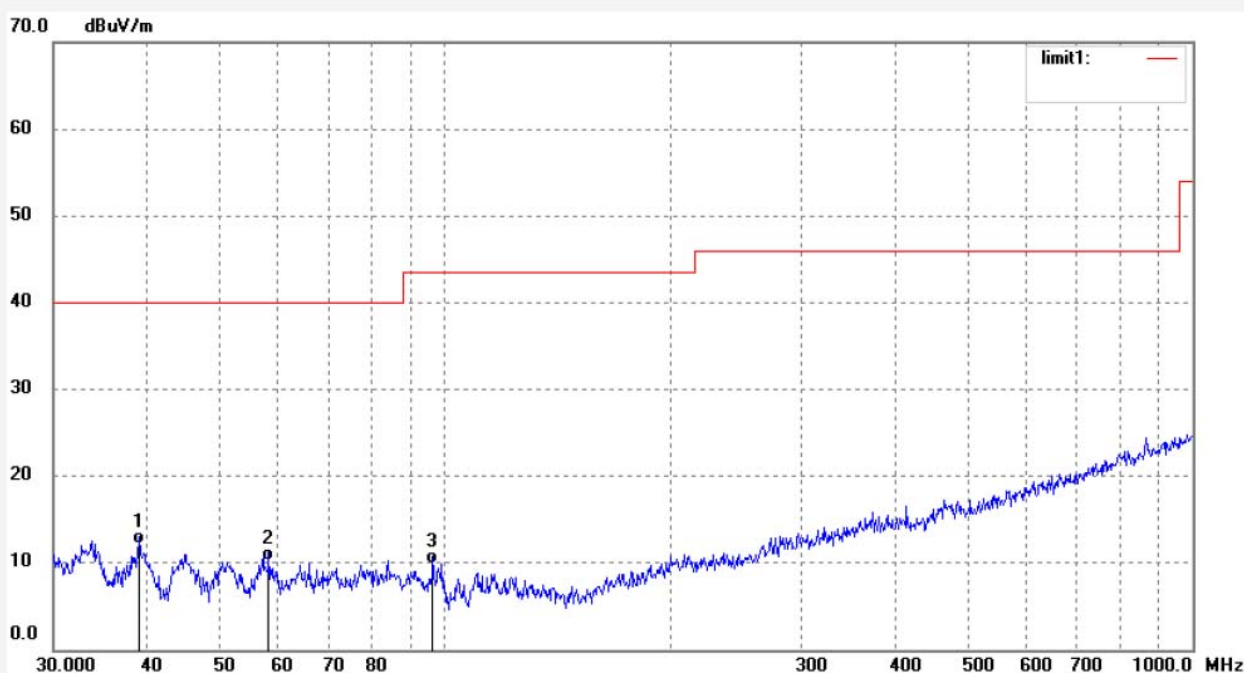
Date: 14/03/01/

Time: 9/23/05

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.0245	32.10	-19.99	12.11	40.00	-27.89	QP			
2	58.2030	31.32	-21.03	10.29	40.00	-29.71	QP			
3	96.4362	31.93	-22.08	9.85	43.50	-33.65	QP			

Above 1G



## ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RICKY #450

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

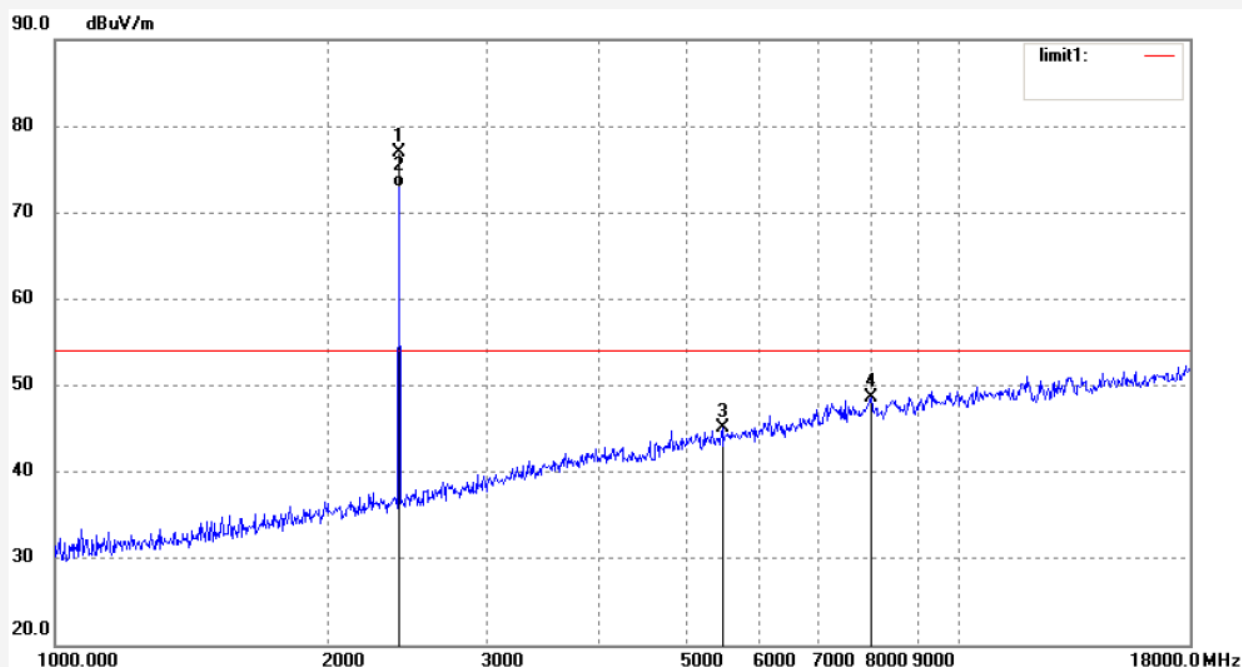
Date: 14/02/28/

Time: 9/24/36

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	83.65	-6.75	76.90	54.00	22.90	peak			
2	2402.000	79.77	-6.75	73.02	54.00	19.02	AVG			
3	5471.422	45.78	-0.62	45.16	54.00	-8.84	peak			
4	7989.892	46.56	2.09	48.65	54.00	-5.35	peak			



Job No.: RICKY #451

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2402MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

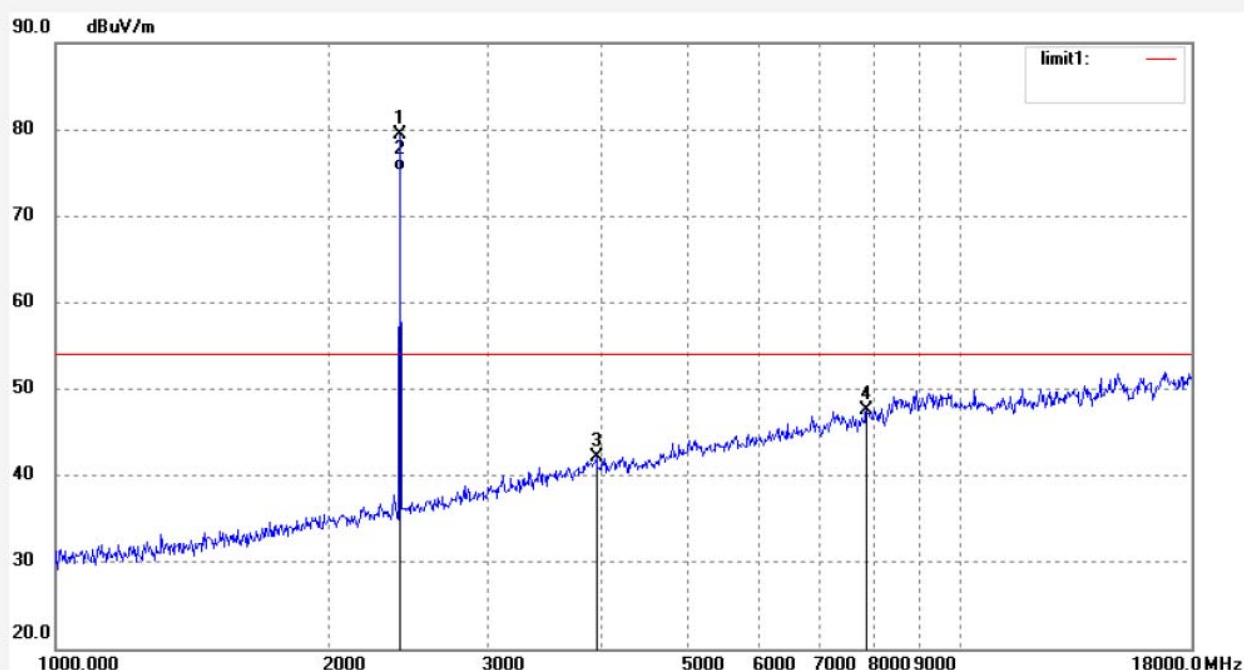
Date: 14/02/28/

Time: 9/30/58

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	86.24	-6.76	79.48	54.00	25.48	peak			
2	2402.000	81.97	-6.76	75.21	54.00	21.21	AVG			
3	3958.309	44.46	-2.37	42.09	54.00	-11.91	peak			
4	7875.254	45.62	1.97	47.59	54.00	-6.41	peak			

Job No.: RICKY #452

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2441MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

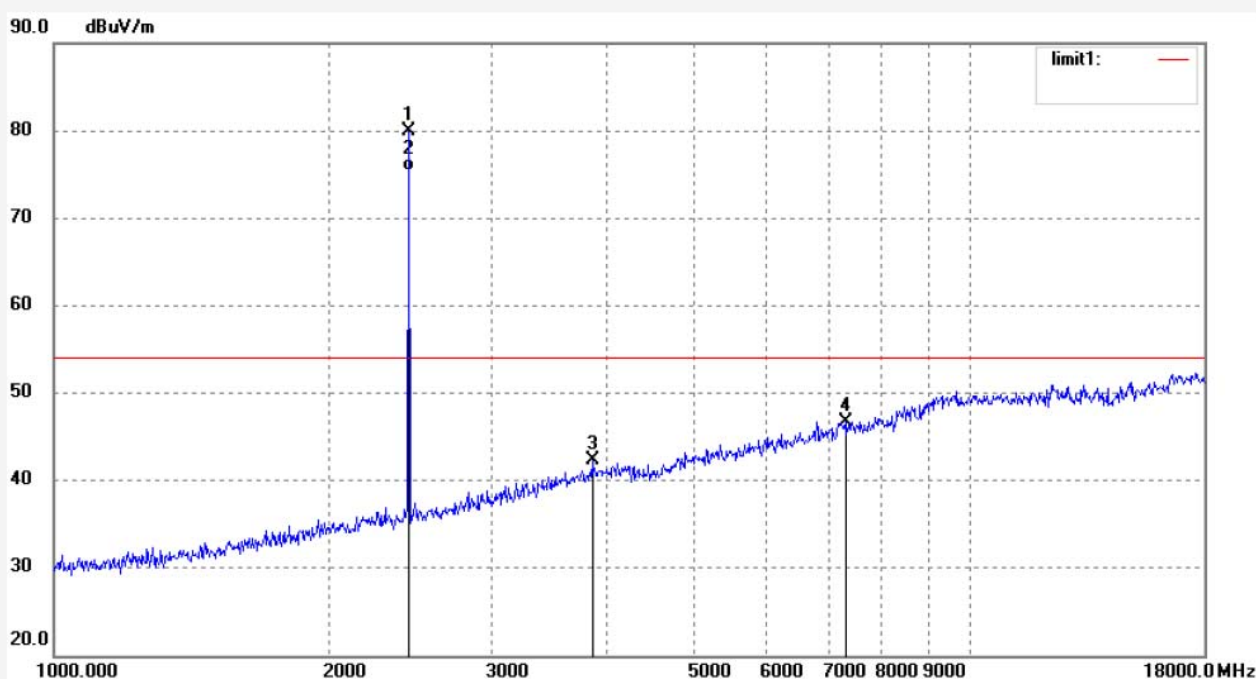
Date: 14/02/28/

Time: 9/34/11

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	86.61	-6.64	79.97	54.00	25.97	peak			
2	2441.000	82.01	-6.64	75.37	54.00	21.37	AVG			
3	3867.831	44.88	-2.58	42.30	54.00	-11.70	peak			
4	7305.122	45.36	1.38	46.74	54.00	-7.26	peak			

Job No.: RICKY #453

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2441MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

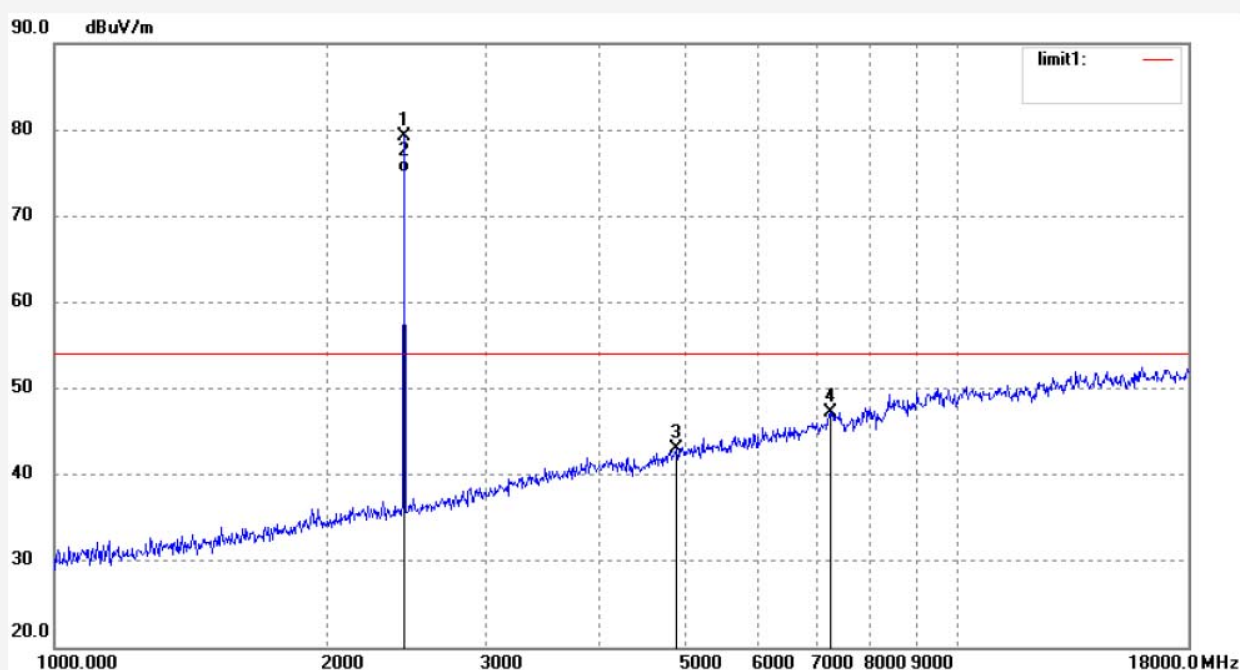
Date: 14/02/28/

Time: 9/36/39

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	85.94	-6.64	79.30	54.00	25.30	peak			
2	2441.000	81.65	-6.64	75.01	54.00	21.01	AVG			
3	4888.151	44.38	-1.33	43.05	54.00	-10.95	peak			
4	7221.150	45.91	1.31	47.22	54.00	-6.78	peak			



Job No.: RICKY #454

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Horizontal

Power Source: DC 3V

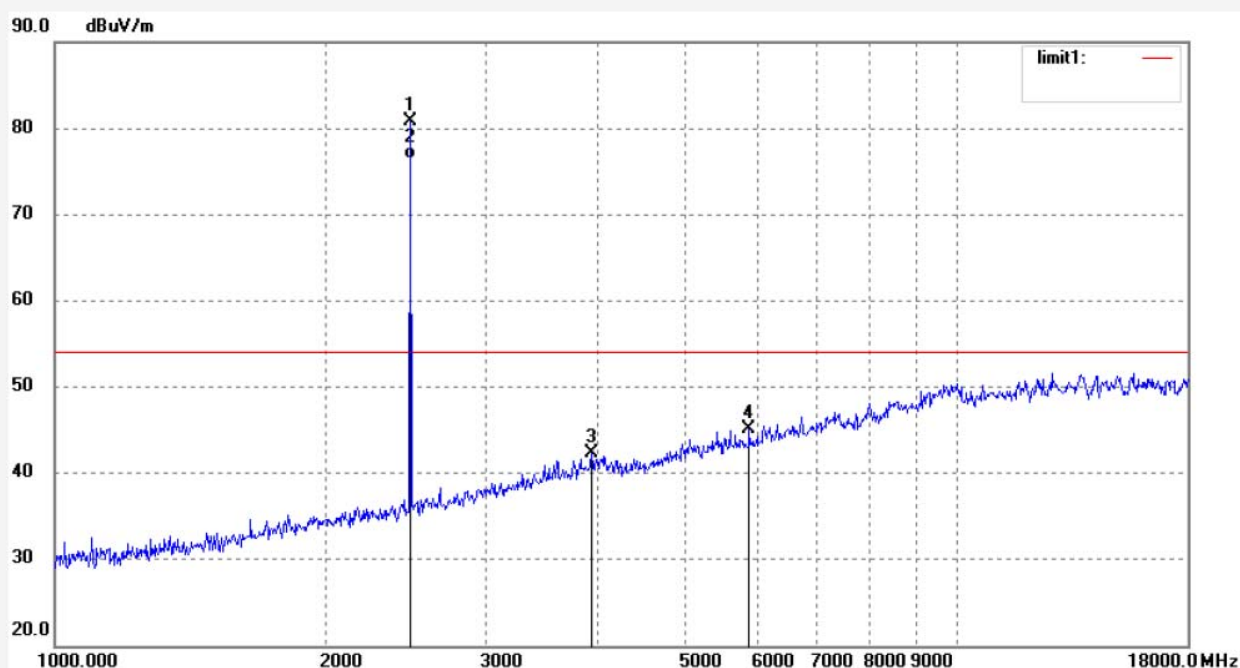
Date: 14/02/28/

Time: 9/38/39

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	87.28	-6.55	80.73	54.00	26.73	peak			
2	2480.000	82.97	-6.55	76.42	54.00	22.42	AVG			
3	3935.493	44.76	-2.43	42.33	54.00	-11.67	peak			
4	5881.418	45.39	-0.23	45.16	54.00	-8.84	peak			

Job No.: RICKY #455

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: 2.4G Wireless Mouse

Mode: TX 2480MHz

Model: M928G

Manufacturer: MAXIN

Polarization: Vertical

Power Source: DC 3V

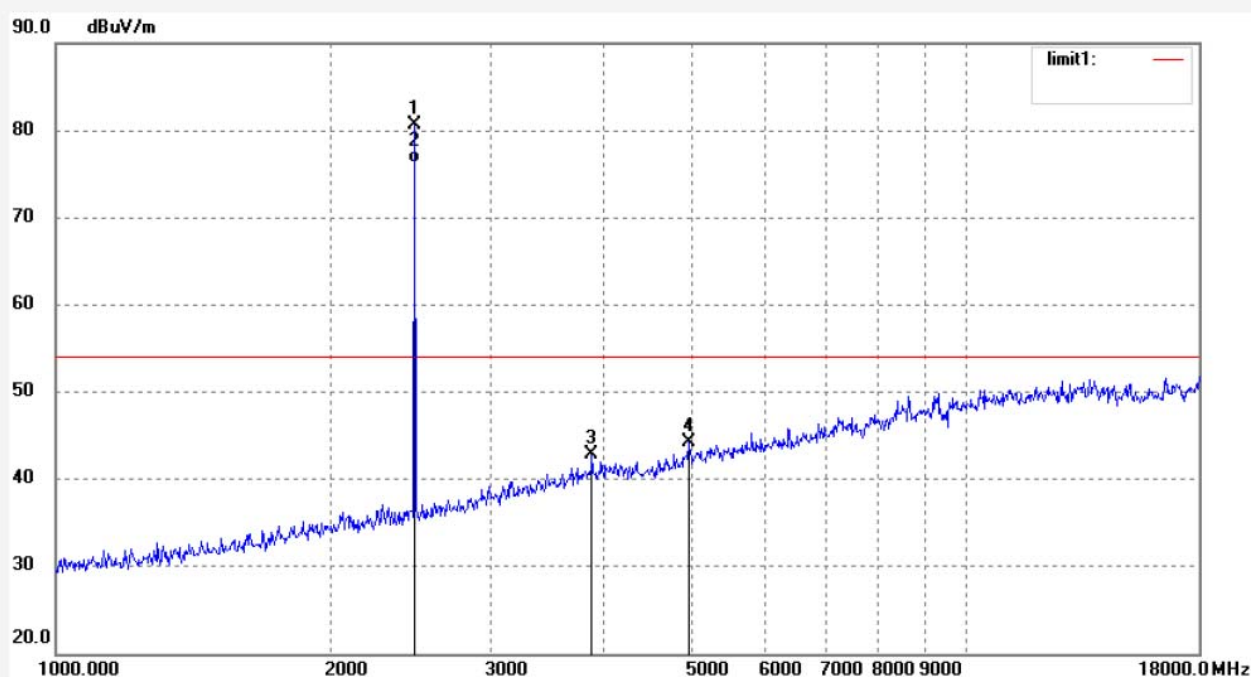
Date: 14/02/28/

Time: 9/40/13

Engineer Signature: Ricky

Distance: 3m

Note: Report No.:ATE20140158



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	87.13	-6.55	80.58	54.00	26.58	peak			
2	2480.000	82.88	-6.55	76.33	54.00	22.33	AVG			
3	3879.027	45.31	-2.55	42.76	54.00	-11.24	peak			
4	4959.307	45.37	-1.12	44.25	54.00	-9.75	peak			

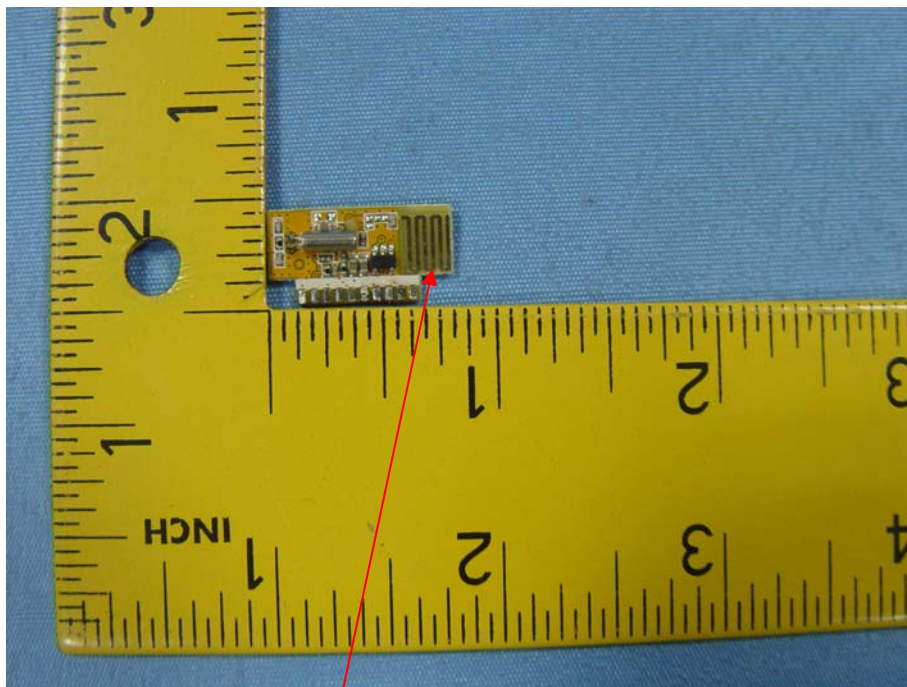
## 8. ANTENNA REQUIREMENT

### 8.1.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.

### 8.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna