

APPLICATION CERTIFICATION
On Behalf of
Eastern Times Technology Co., Ltd.

Bluetooth Optical Mouse
Model No.: U400

FCC ID: TUVU400

Prepared for : Eastern Times Technology Co., Ltd.
Address : Building 5, Penghua Industry Park, Heping Rd.(W),
Longhua, Shenzhen, Guangdong, China

Prepared by : ACCURATE TECHNOLOGY CO. LTD
Address : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

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

Report Number : ATE20081574
Date of Test : August 20-September 06, 2008
Date of Report : September 08, 2008

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Test Report Certification

Applicant : Eastern Times Technology Co., Ltd.
 Manufacturer : Eastern Times Technology Co., Ltd.
 EUT Description : Bluetooth Optical Mouse
 (A) MODEL NO.: U400
 (B) SERIAL NO.: N/A
 (C) POWER SUPPLY: 3.0V DC ("AAA" batteries 2×)

Measurement Procedure Used:

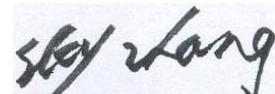
FCC Rules and Regulations Part 15 Subpart C Section 15.247:2007 & ANSI C63.4: 2003

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.

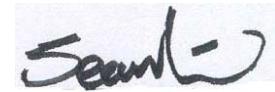
Date of Test : August 20-September 06, 2008

Prepared by :



(Engineer)

Approved & Authorized Signer :



(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	Bluetooth Optical Mouse
Model Number	:	U400
Frequency Band	:	2400MHz-2483.5MHz
Number of Channels	:	79
Antenna Gain	:	0dBi
Power Supply	:	3.0V DC (“AAA” batteries 2×)
Applicant	:	Eastern Times Technology Co., Ltd.
Address	:	Building 5, Penghua Industry Park, Heping Rd.(W), Longhua, Shenzhen, Guangdong, China
Manufacturer	:	Eastern Times Technology Co., Ltd.
Address	:	Building 5, Penghua Industry Park, Heping Rd.(W), Longhua, Shenzhen, Guangdong, China
Date of sample received	:	August 18, 2008
Date of Test	:	August 20-September, 2008

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 = 4.42dB, 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

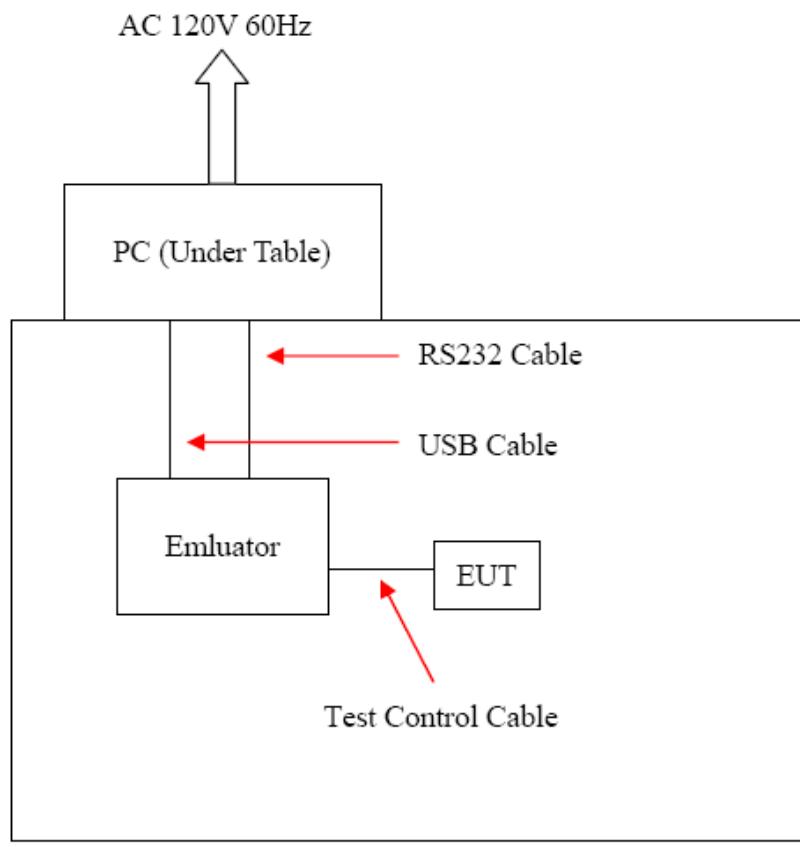
Kind of equipment	Manufacturer	Type	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	03.29.2009
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	03.29.2009
Spectrum Analyzer	Agilent	E7405A	MY45115511	03.29.2009
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	03.31.2009
Loop Antenna	Schwarzbeck	FMZB1516	1516131	03.28.2009
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	03.29.2009
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	12.20.2008
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	10.10.2008
LISN	Rohde&Schwarz	ESH3-Z5	100305	03.29.2009
LISN	Schwarzbeck	NLSK8126	8126431	03.29.2009

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
Hopping

3.2. Configuration and peripherals



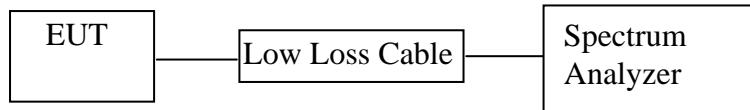
(EUT: Bluetooth Optical Mouse)

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission Test	N/A
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Radiated Emission Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 20DB BANDWIDTH TEST

5.1. Block Diagram of Test Setup



(EUT: Bluetooth Optical Mouse)

5.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

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. Bluetooth Optical Mouse (EUT)

Model Number : U400
 Serial Number : N/A
 Manufacturer : Eastern Times Technology Co., Ltd.

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 4.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX(Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz 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 30kHz and VBW to 100kHz.

5.5.3. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

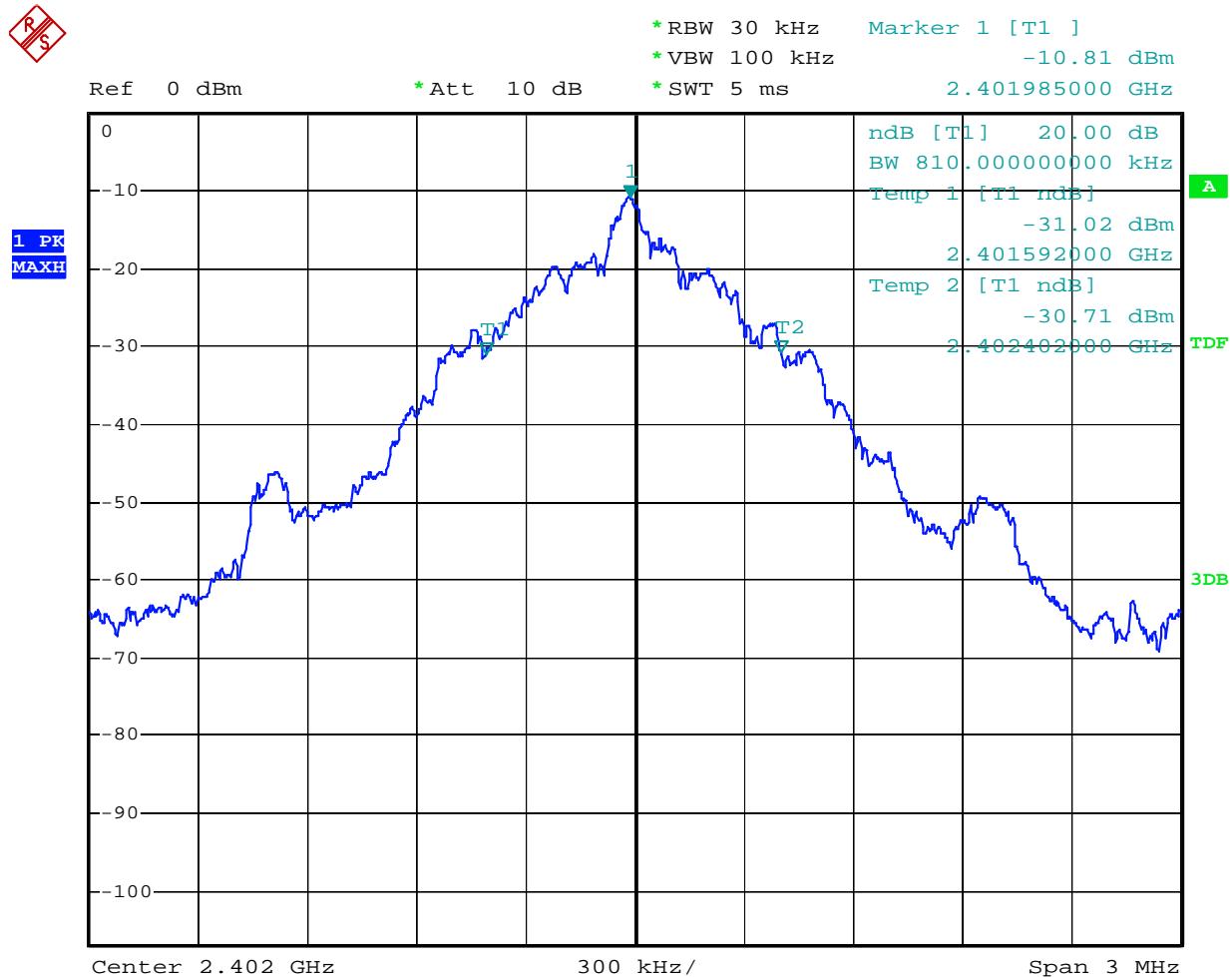
5.6. Test Result

PASS.

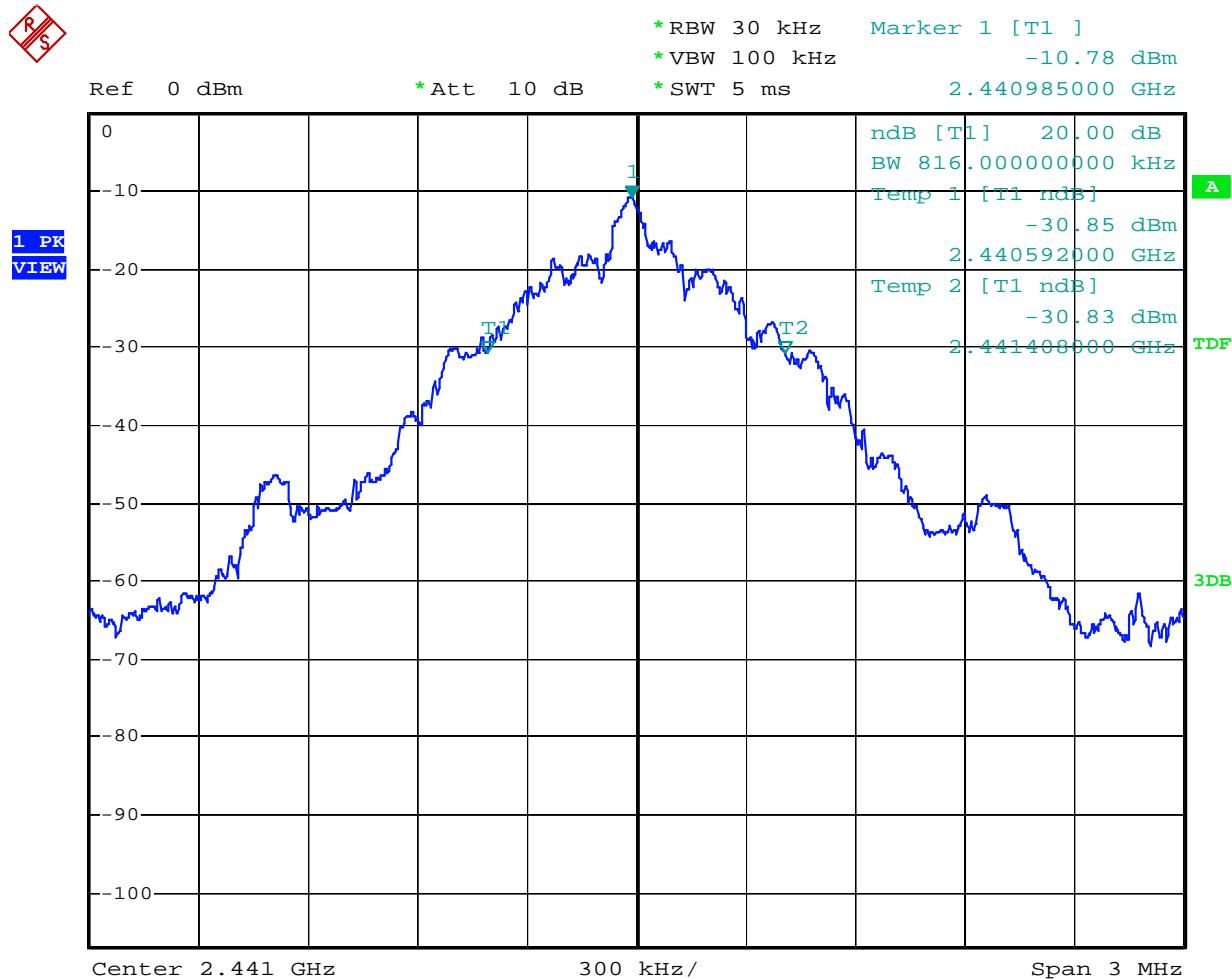
Date of Test:	September 06, 2008	Temperature:	25°C
EUT:	Bluetooth Optical Mouse	Humidity:	50%
Model No.:	U400	Power Supply:	DC 3V
Test Mode:	TX	Test Engineer:	Feng

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
Low	2402	0.810	---
Middle	2441	0.816	---
High	2480	0.810	---

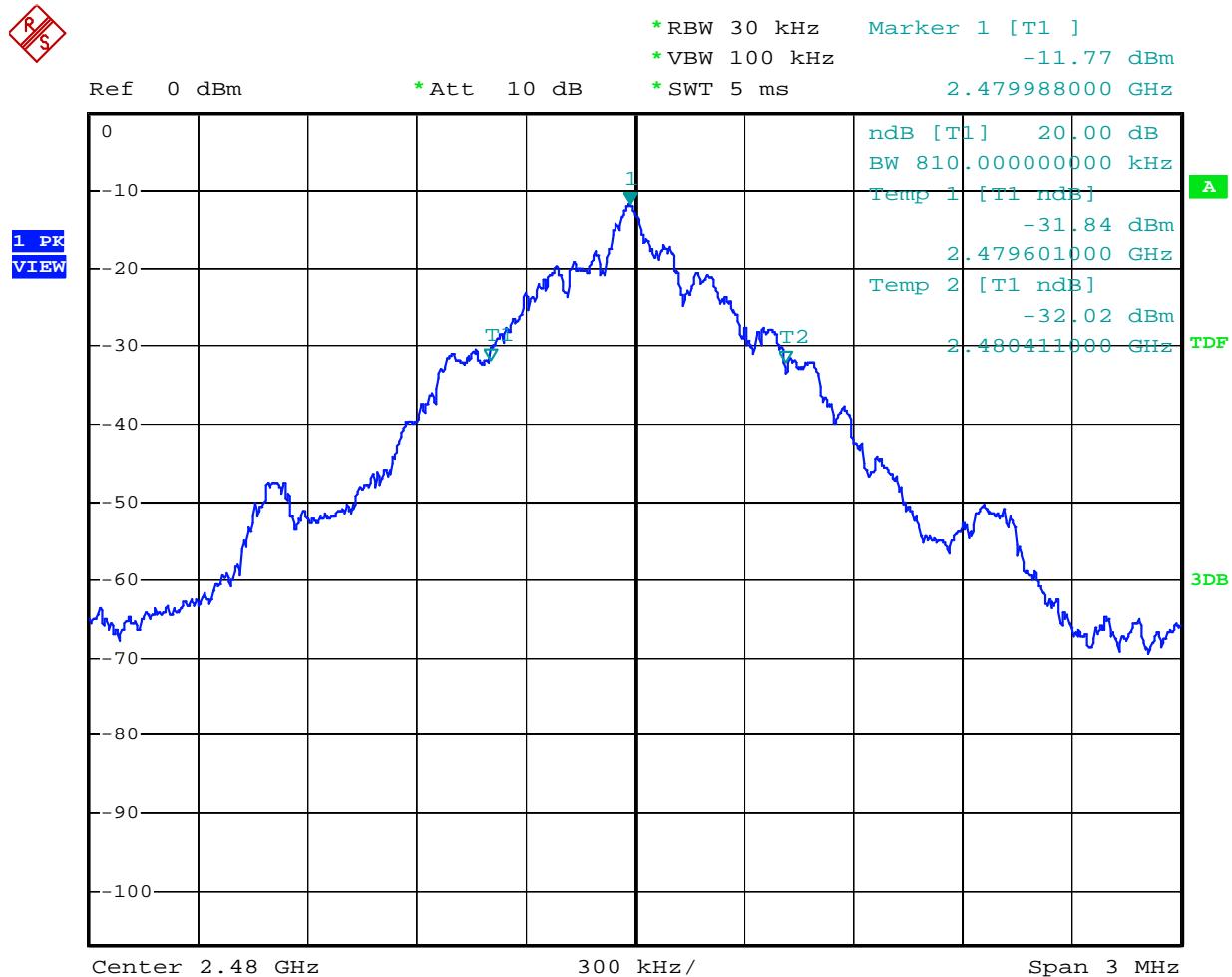
The spectrum analyzer plots are attached as below.



Date: 6.SEP.2008 11:25:00



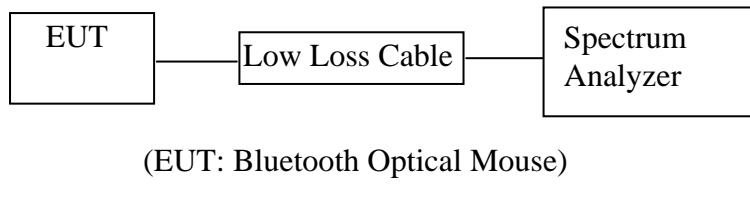
Date: 6.SEP.2008 11:27:05



Date: 6.SEP.2008 11:29:15

6. CARRIER FREQUENCY SEPARATION TEST

6.1. Block Diagram of Test Setup



6.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

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. Bluetooth Optical Mouse (EUT)

Model Number	:	U400
Serial Number	:	N/A
Manufacturer	:	Eastern Times Technology Co., Ltd.

6.4. Operating Condition of EUT

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

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz 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 100kHz and VBW to 300kHz. Adjust Span to 3 MHz.
- 6.5.3. Set the adjacent channel of the EUT maxhold another trace.
- 6.5.4. Measurement the channel separation

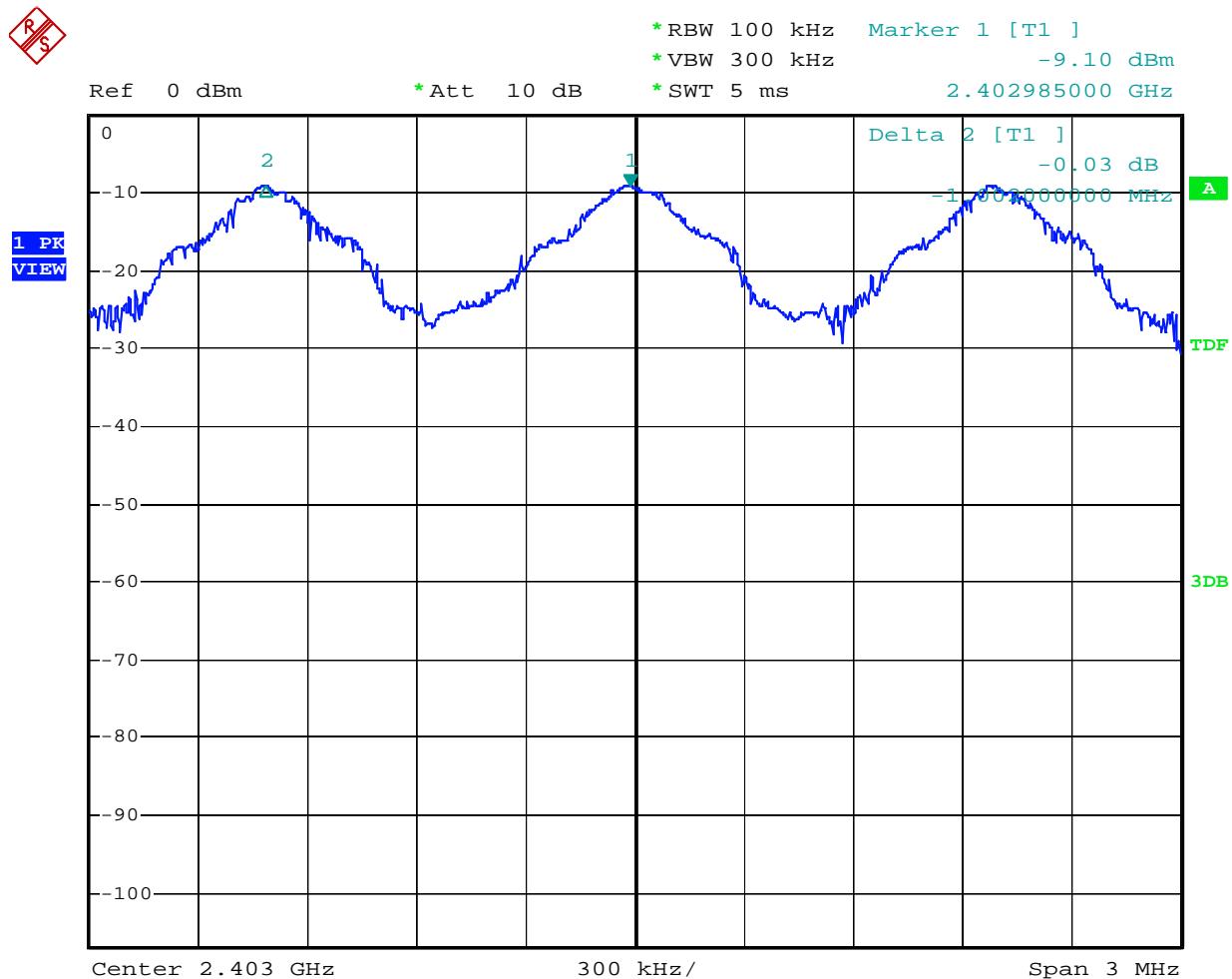
6.6. Test Result

PASS.

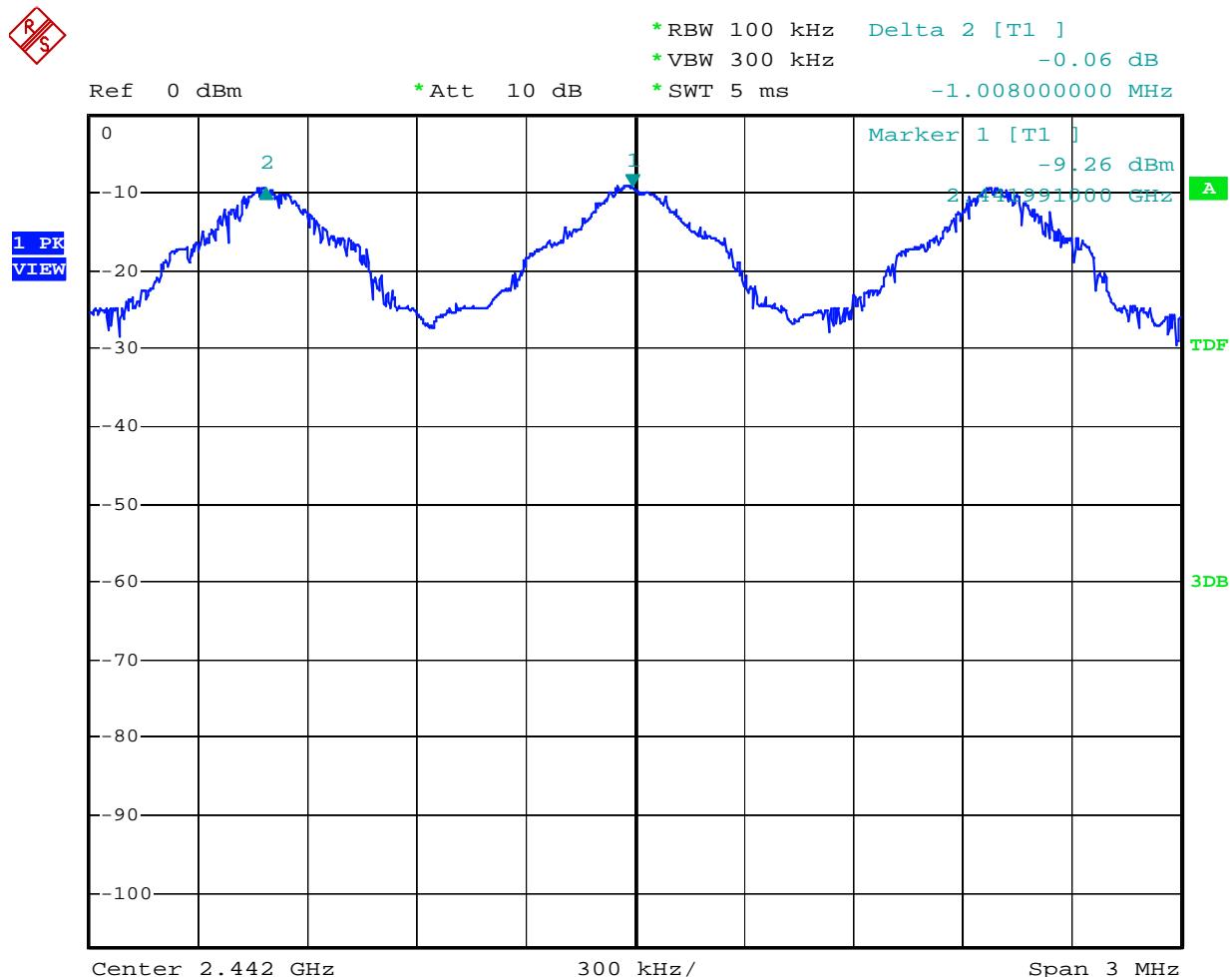
Date of Test:	September 06, 2008	Temperature:	25°C
EUT:	Bluetooth Optical Mouse	Humidity:	52%
Model No.:	U400	Power Supply:	DC 3V
Test Mode:	Hopping	Test Engineer:	Feng

Channel	Channel Frequency (MHz)	Channel separation (MHz)	Limit
Low	2402	1.002	> the 20dB Bandwidth or 25kHz (whichever is greater)
Middle	2441	1.008	> the 20dB Bandwidth or 25kHz (whichever is greater)
High	2480	1.002	> the 20dB Bandwidth or 25kHz (whichever is greater)

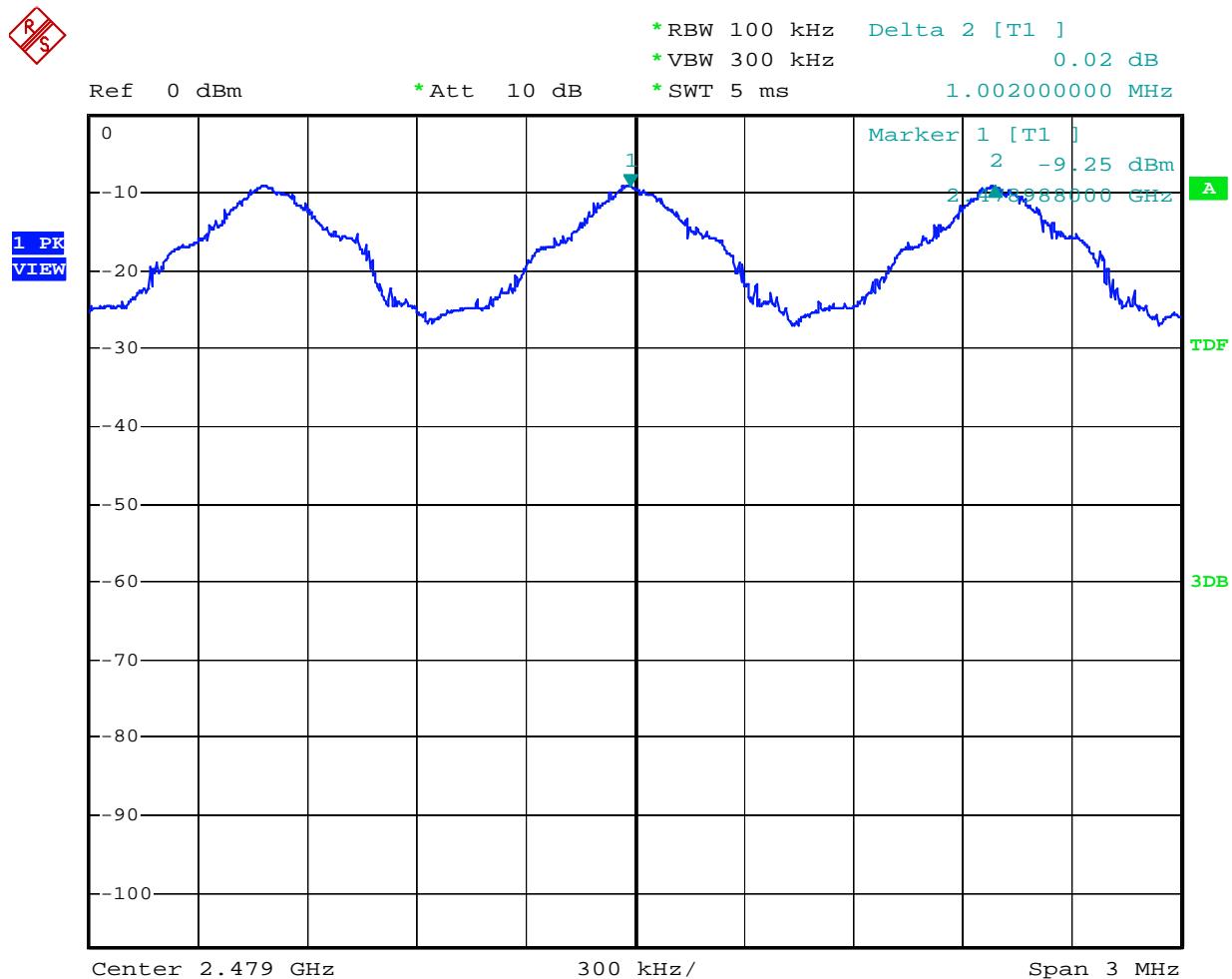
The spectrum analyzer plots are attached as below.



Date: 6.SEP.2008 10:12:31



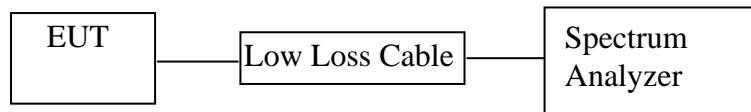
Date: 6.SEP.2008 10:20:01



Date: 6.SEP.2008 10:29:46

7. NUMBER OF HOPPING FREQUENCY TEST

7.1. Block Diagram of Test Setup



(EUT: Bluetooth Optical Mouse)

7.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

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. Bluetooth Optical Mouse (EUT)

Model Number	:	U400
Serial Number	:	N/A
Manufacturer	:	Eastern Times Technology Co., Ltd.

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 6.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX (Hopping on) modes measure it.

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 spectrum analyzer Start=2400MHz, Stop = 2483.5MHz.
- 7.5.3. Set the spectrum analyzer as RBW=100KHz, VBW=300KHz.
- 7.5.4. Max hold, view and count how many channel in the band.

7.6. Test Result

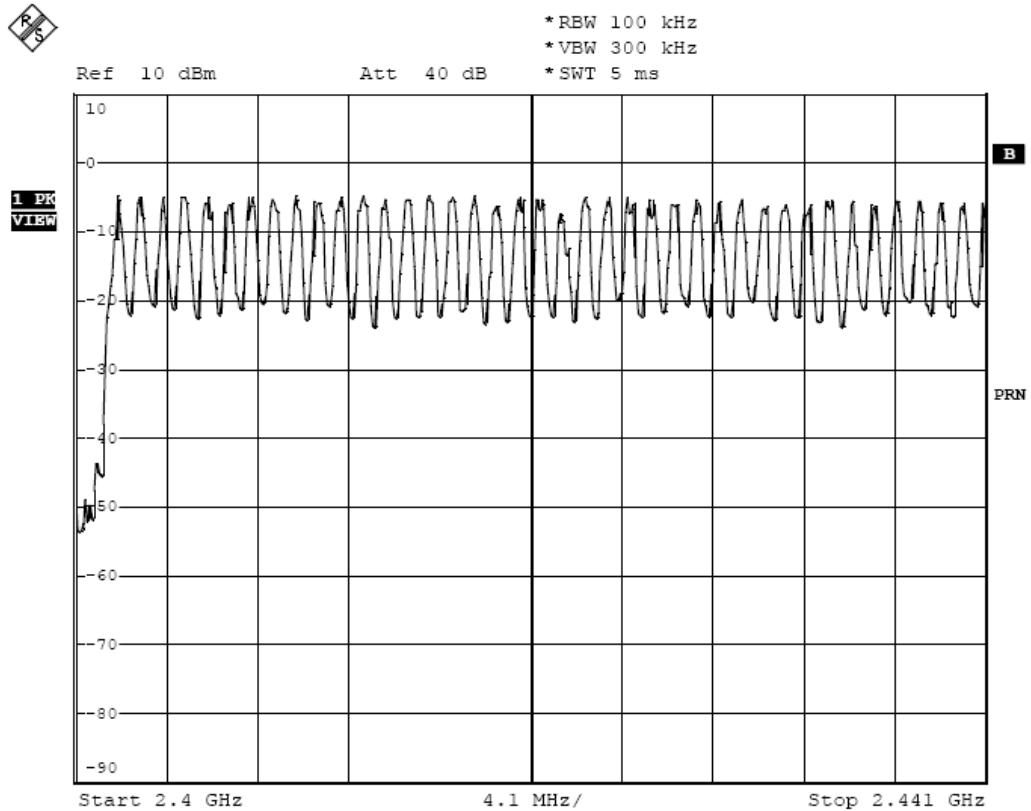
PASS.

Date of Test:	<u>August 26, 2008</u>	Temperature:	<u>25°C</u>
EUT:	<u>Bluetooth Optical Mouse</u>	Humidity:	<u>52%</u>
Model No.:	<u>U400</u>	Power Supply:	<u>DC 3V</u>
Test Mode:	<u>Hopping</u>	Test Engineer:	<u>Feng</u>

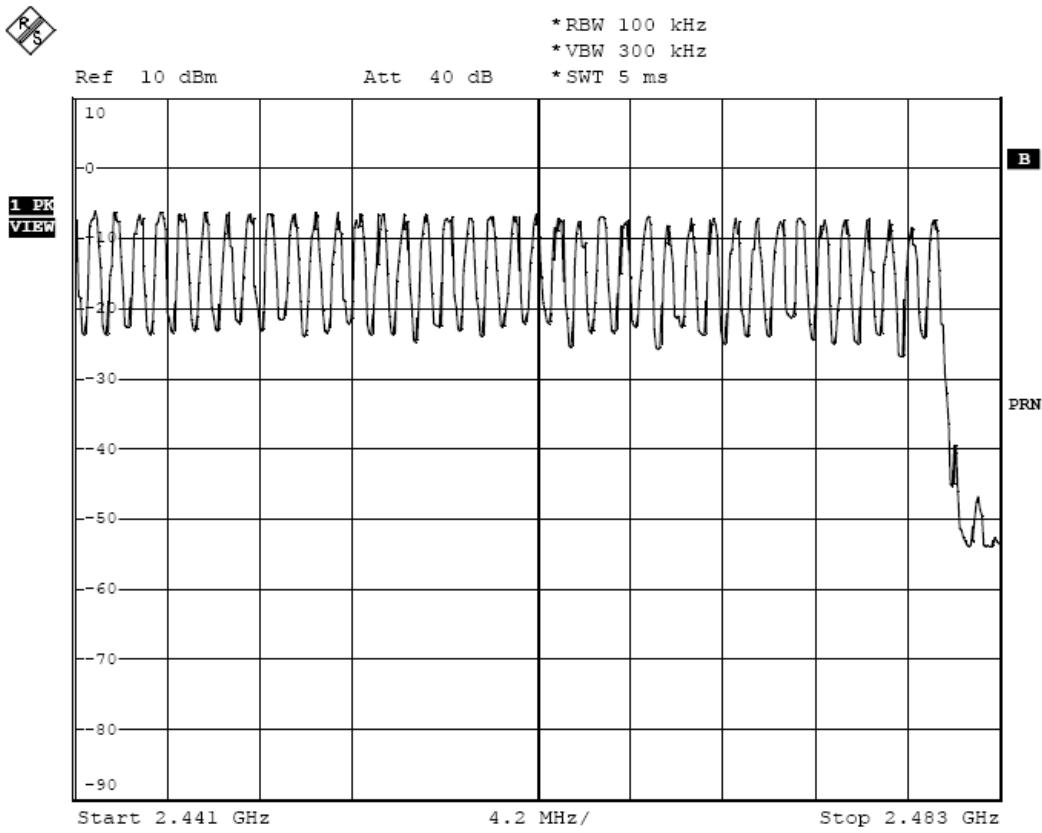
Total number of hopping channel	Measurement result (CH)	Limit (CH)
	79	>15

The spectrum analyzer plots are attached as below.

R5

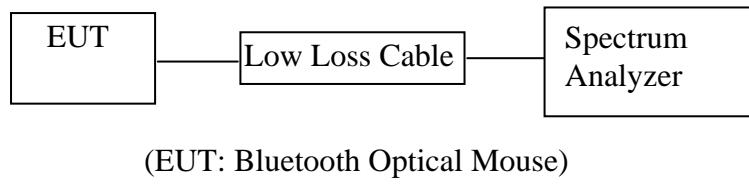


R5



8. DWELL TIME TEST

8.1. Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

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. Bluetooth Optical Mouse (EUT)

Model Number : U400
 Serial Number : N/A
 Manufacturer : Eastern Times Technology Co., Ltd.

8.4. Operating Condition of EUT

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

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

8.5. Test Procedure

- 8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 8.5.2. Set center frequency of spectrum analyzer = operating frequency.
- 8.5.3. Set the spectrum analyzer as RBW, VBW=100kHz, Span = 0Hz, Adjust Sweep = 1s. Get the burst (in 1 sec.).
- 8.5.4. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span = 0Hz, Adjust Sweep = 2ms. Get the pulse time.
- 8.5.5. Repeat above procedures until all frequency measured were complete.

8.6. Test Result

PASS.

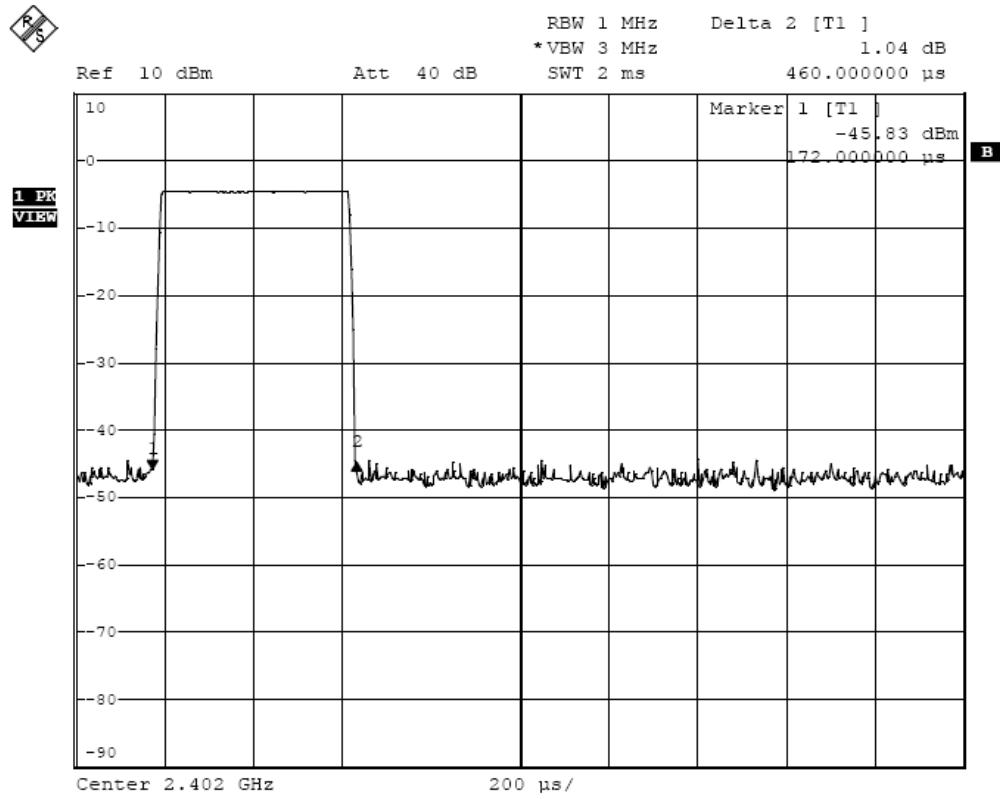
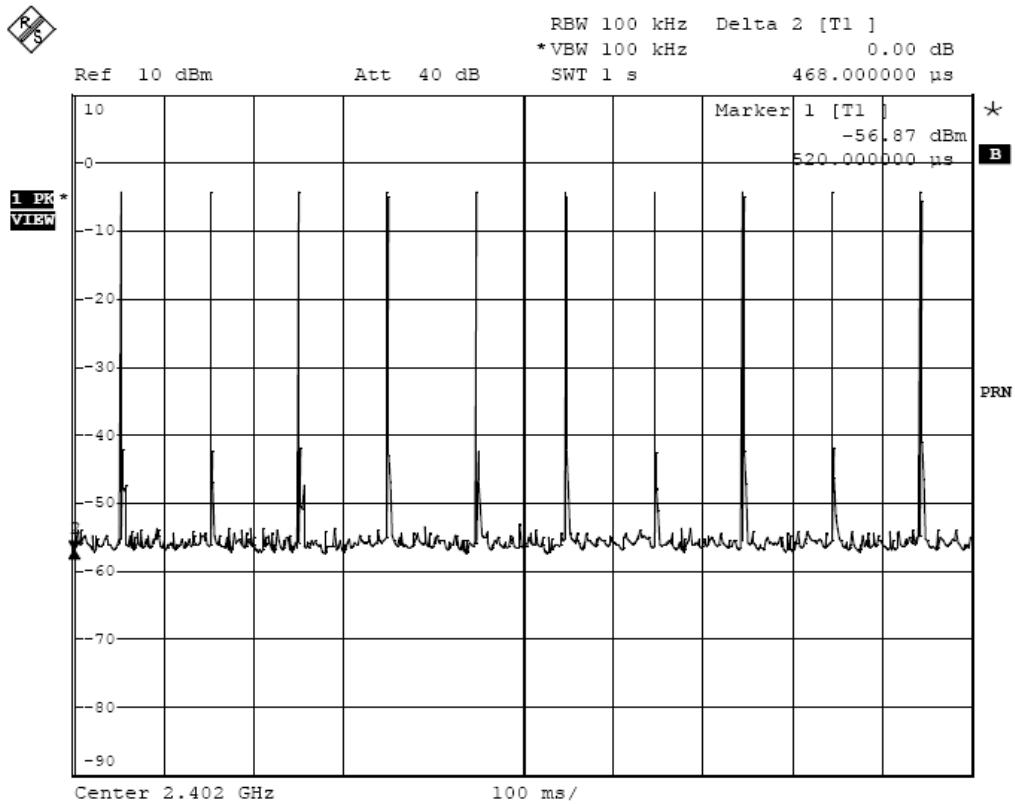
Date of Test:	August 26, 2008	Temperature:	25°C
EUT:	Bluetooth Optical Mouse	Humidity:	52%
Model No.:	U400	Power Supply:	DC 3V
Test Mode:	Hopping	Test Engineer:	Feng

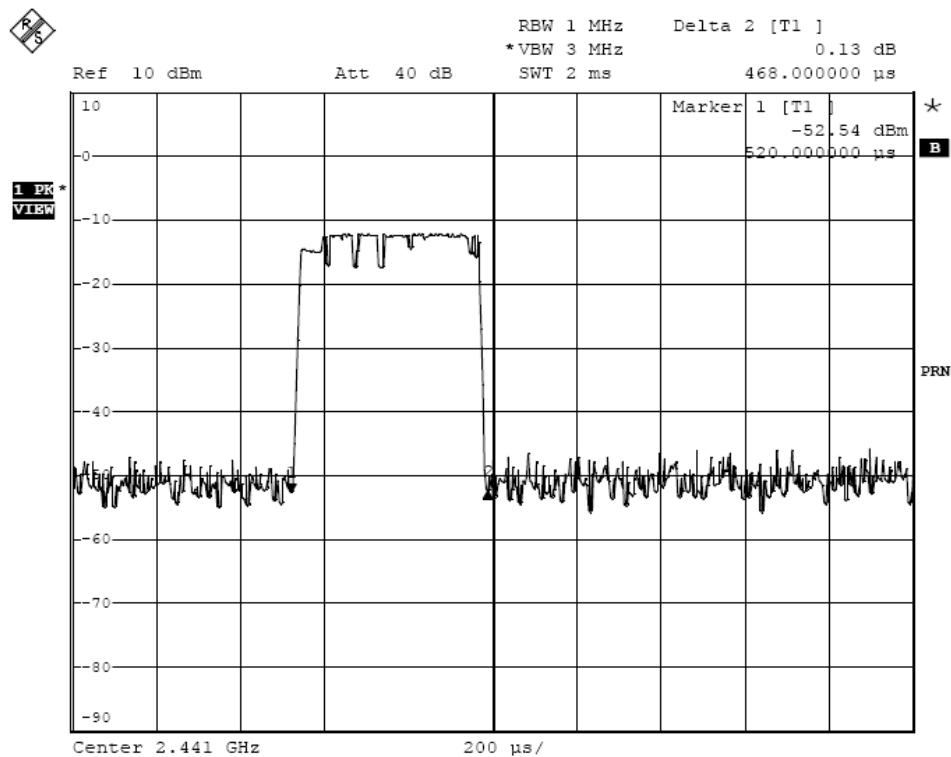
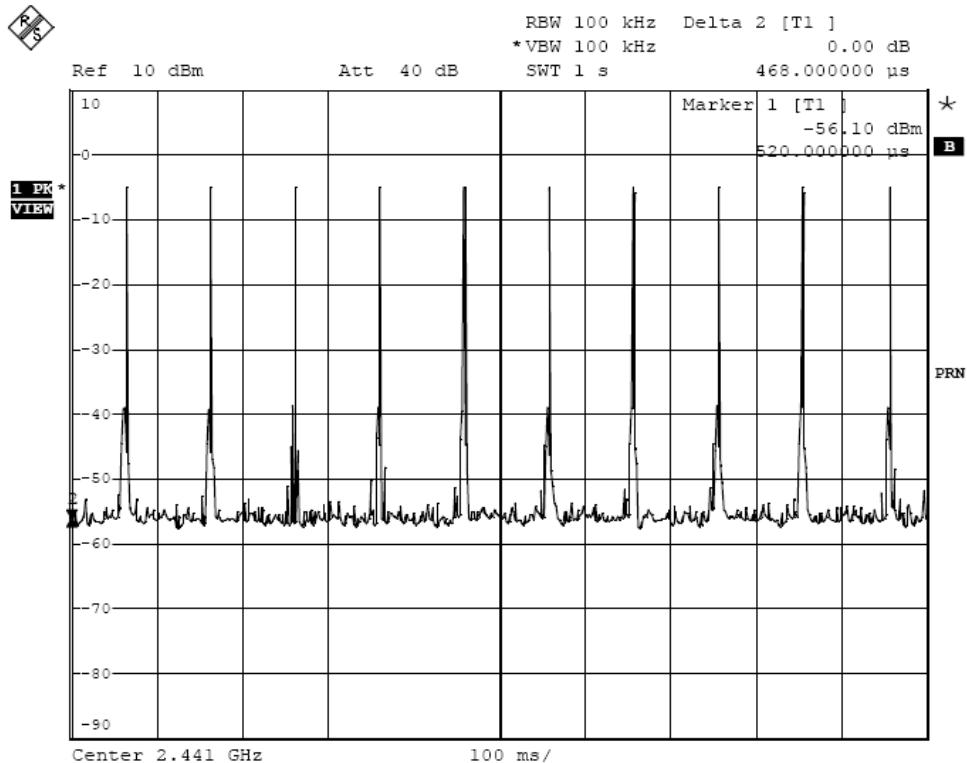
A period transmit time = $0.4 \times 79 = 31.6$

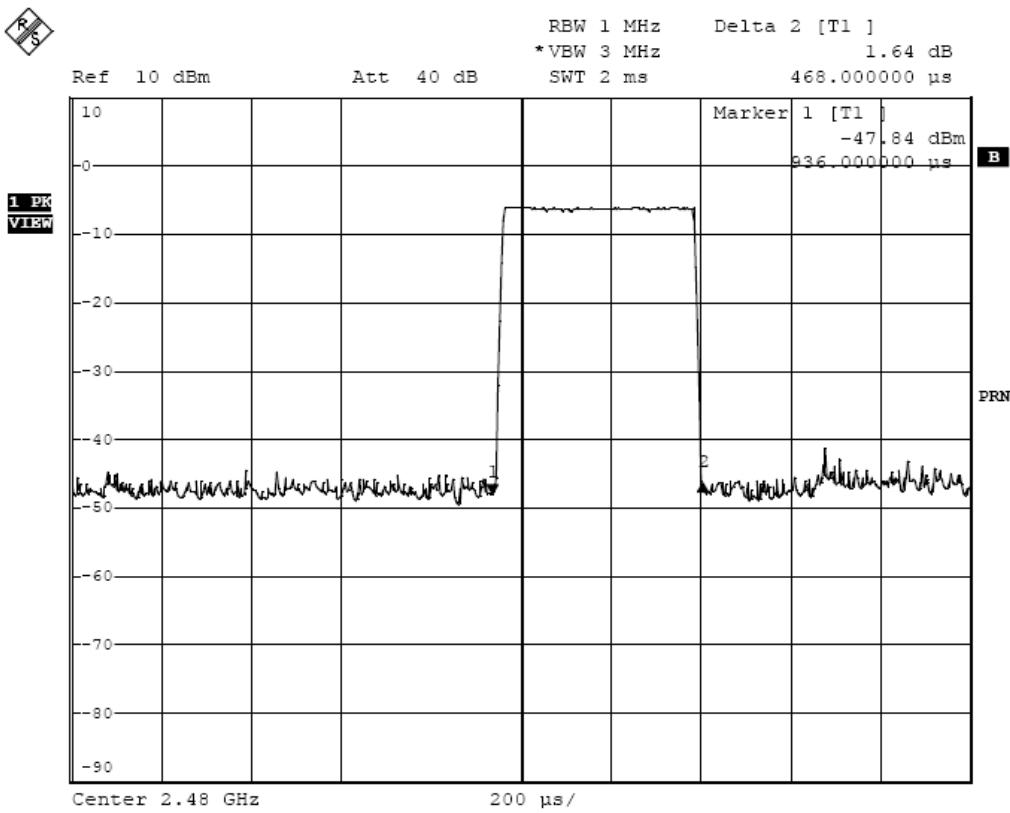
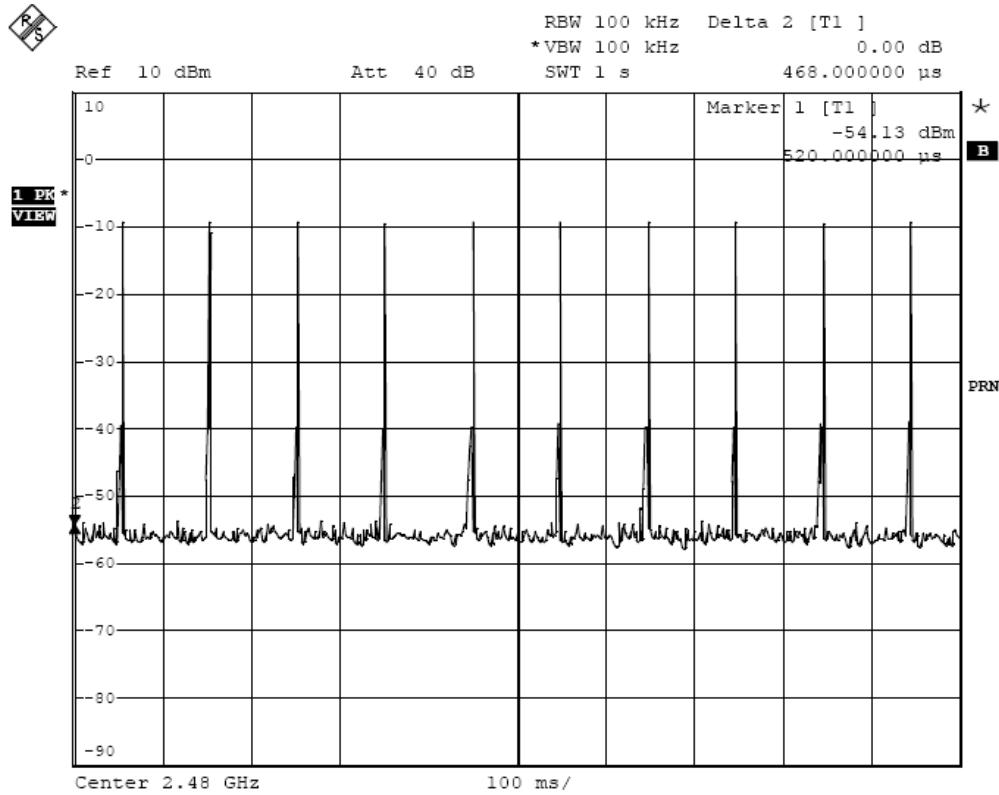
Dwell time = pulse time \times burst (in 1 sec.) \times 31.6

Channel	Channel Frequency (MHz)	Pulse Time (ms)	Burst (in 1 sec.)	Dwell Time (ms)	Limit (ms)
Low	2402	0.460	10	145.36	400
Middle	2441	0.468	10	147.89	400
High	2480	0.468	10	147.89	400

The spectrum analyzer plots are attached as below.

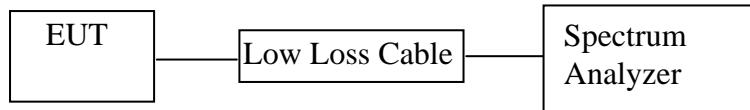






9. MAXIMUM PEAK OUTPUT POWER TEST

9.1. Block Diagram of Test Setup



(EUT: Bluetooth Optical Mouse)

9.2. The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3. 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.

9.3.1. Bluetooth Optical Mouse (EUT)

Model Number : U400
 Serial Number : N/A
 Manufacturer : Eastern Times Technology Co., Ltd.

9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 8.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

9.5. Test Procedure

9.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

9.5.2. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.

9.5.3. Measurement the maximum peak output power.

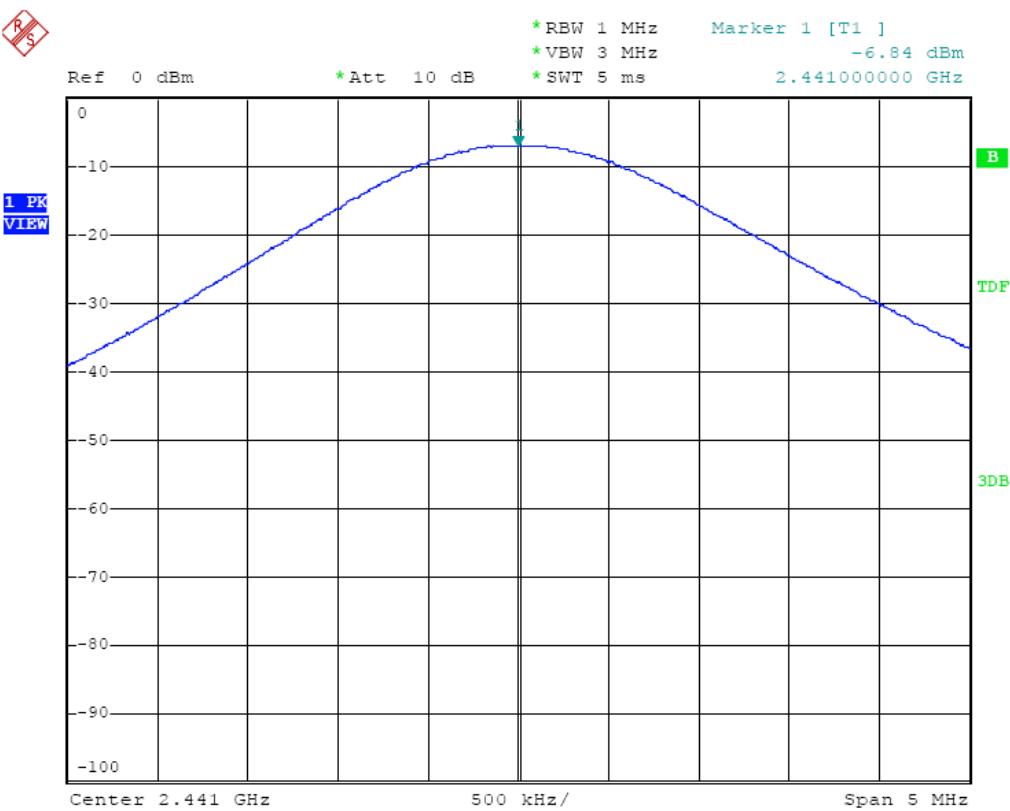
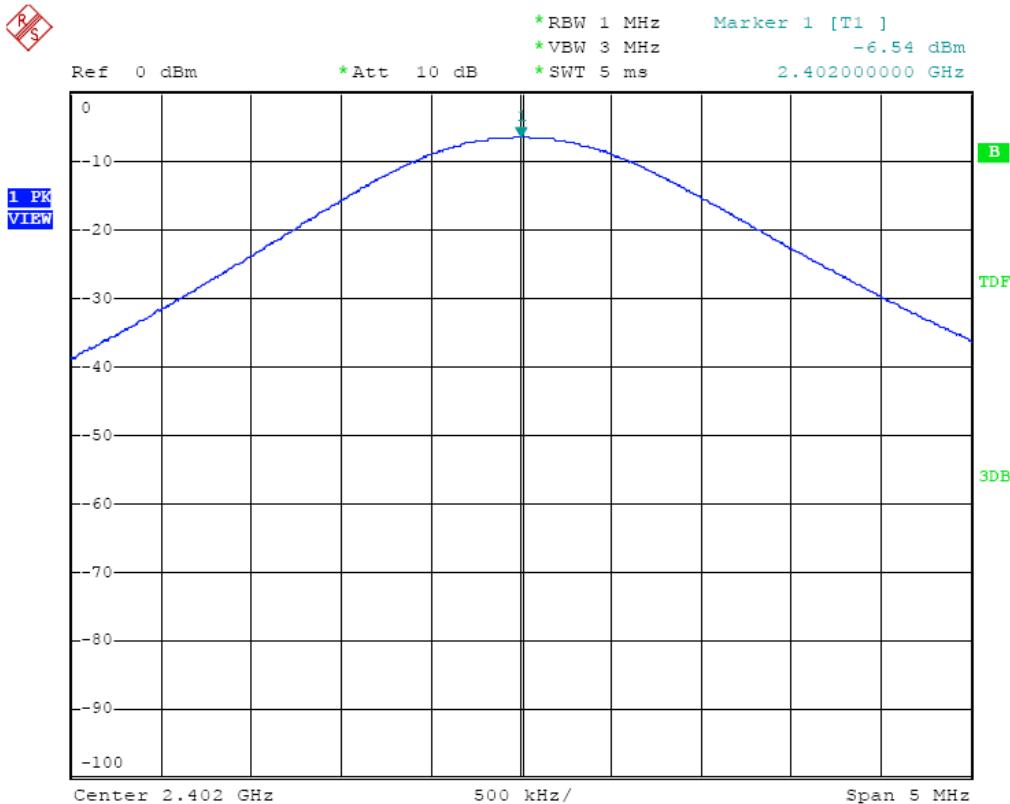
9.6. Test Result

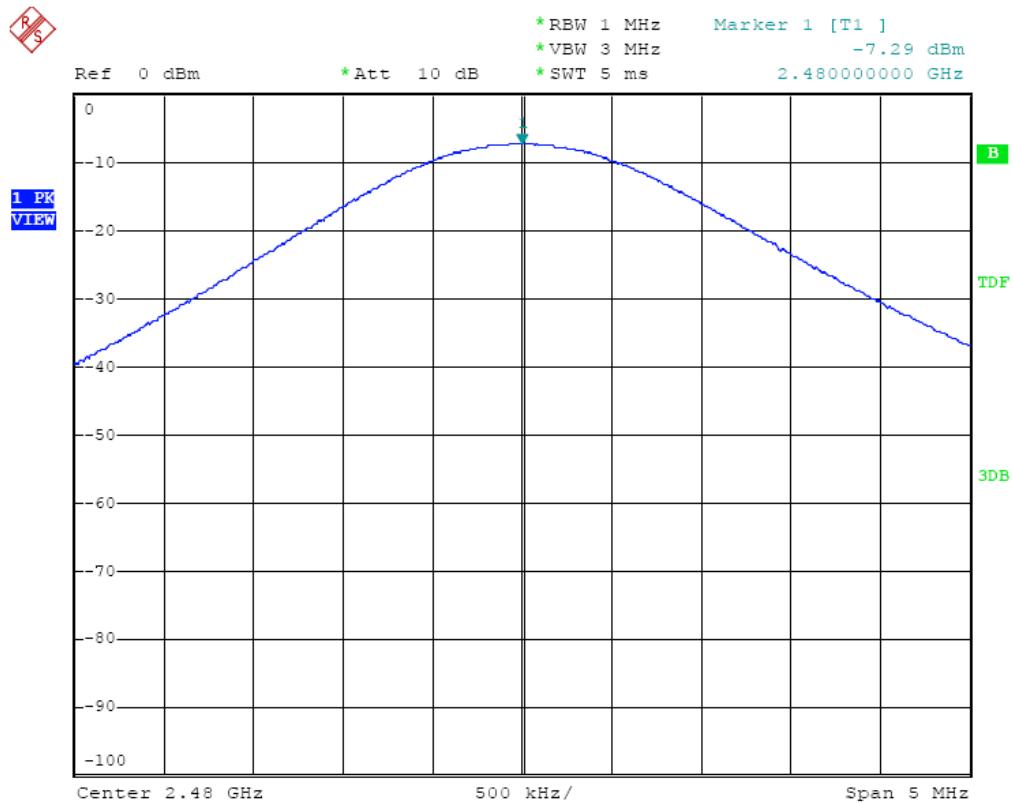
PASS.

Date of Test:	August 25, 2008	Temperature:	25°C
EUT:	Bluetooth Optical Mouse	Humidity:	50%
Model No.:	U400	Power Supply:	DC 3V
Test Mode:	TX	Test Engineer:	Feng

Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2402	-6.54	0.22	30 dBm / 1 W
Middle	2441	-6.48	0.22	30 dBm / 1 W
High	2480	-7.29	0.19	30 dBm / 1 W

The spectrum analyzer plots are attached as below.

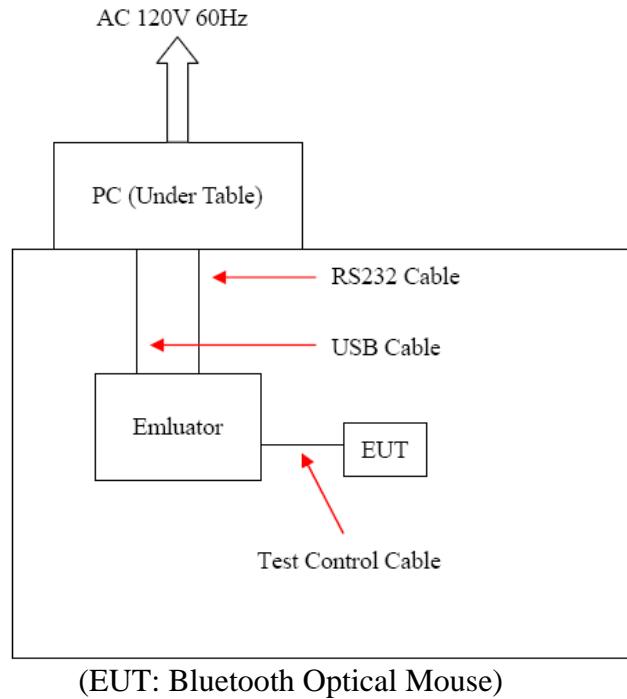




10.RADIATED EMISSION TEST

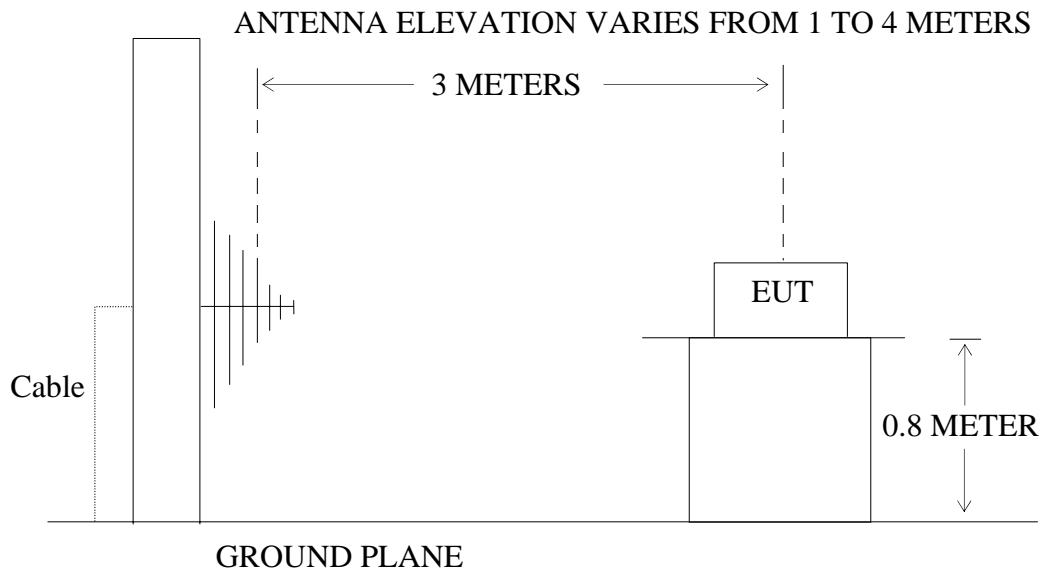
10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and simulators



(EUT: Bluetooth Optical Mouse)

10.1.2.Anechoic Chamber Test Setup Diagram



(EUT: Bluetooth Optical Mouse)

10.2.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).

10.3.Restricted bands of operation

10.3.1.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
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	(²)
13.36-13.41			

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

²Above 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.

10.4. 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.

10.4.1. Bluetooth Optical Mouse (EUT)

Model Number	:	U400
Serial Number	:	N/A
Manufacturer	:	Eastern Times Technology Co., Ltd.

10.5. 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 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

10.6.The Field Strength of Radiation Emission Measurement Results
PASS.

Date of Test:	August 27-28, 2008	Temperature:	25°C
EUT:	Bluetooth Optical Mouse	Humidity:	53%
Model No.:	U400	Power Supply:	DC 3V
Test Mode:	TX (2402MHz)	Test Engineer:	Feng

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB μ V/m)	Factor Corr. (dB)	Result (dB μ V/m)		Limit (dB μ V/m)	Margin (dB)	Polarization
			QP	QP			
143.7760	23.92	14.48	38.40	43.50	-5.10	Vertical	
247.8593	25.76	17.34	43.10	46.00	-2.90	Vertical	
259.4433	24.68	18.52	43.20	46.00	-2.80	Vertical	
271.5686	23.67	18.23	41.90	46.00	-4.10	Vertical	
354.6911	21.41	21.09	42.50	46.00	-3.50	Vertical	
366.0865	21.22	21.48	42.70	46.00	-3.30	Vertical	
202.8745	24.57	15.03	39.60	43.50	-3.90	Horizontal	
247.8591	24.86	17.34	42.20	46.00	-3.80	Horizontal	
259.4433	24.58	18.52	43.10	46.00	-2.90	Horizontal	
271.5686	25.27	18.23	43.50	46.00	-2.50	Horizontal	
285.2610	23.94	18.46	42.40	46.00	-3.60	Horizontal	
366.0865	21.42	21.48	42.90	46.00	-3.10	Horizontal	

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dB μ V/m)		Factor Corr. (dB)	Result(dB μ V/m)		Limit(dB μ V/m)		Margin(dB μ V/m)		Polarizati on
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2401.999	96.65	100.87	-7.45	89.20	93.42	-	-	-	-	Vertical
*4803.997	48.40	50.42	-0.30	48.10	50.12	54	74	-5.90	-23.88	Vertical
7205.996	43.23	45.55	2.97	46.20	48.52	54	74	-7.80	-25.48	Vertical
2401.999	99.45	104.01	-7.45	92.00	96.56	-	-	-	-	Horizontal
*4803.997	50.60	52.84	-0.30	50.30	52.54	54	74	-3.70	-21.46	Horizontal
7205.996	45.93	48.10	2.97	48.90	51.07	54	74	-5.10	-22.93	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.

2. *: Denotes restricted band of operation.

Date of Test: August 27-28, 2008
 EUT: Bluetooth Optical Mouse
 Model No.: U400
 Test Mode: TX (2441MHz)

Temperature: 25°C
 Humidity: 53%
 Power Supply: DC 3V
 Test Engineer: Feng

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB μ V/m)	Factor Corr.	Result (dB μ V/m)		Limit (dB μ V/m)	Margin (dB)	Polarization
			QP	(dB)	QP	QP	
271.5686	23.87	18.23	42.10	46.00	-3.90	Vertical	
285.2610	24.44	18.46	42.90	46.00	-3.10	Vertical	
354.6911	22.11	21.09	43.20	46.00	-2.80	Vertical	
366.0865	21.82	21.48	43.30	46.00	-2.70	Vertical	
509.3559	18.78	24.12	42.90	46.00	-3.10	Vertical	
520.2078	18.72	24.08	42.80	46.00	-3.20	Vertical	
259.4433	24.88	18.52	43.40	46.00	-2.60	Horizontal	
271.5686	24.67	18.23	42.90	46.00	-3.10	Horizontal	
285.2610	23.84	18.46	42.30	46.00	-3.70	Horizontal	
354.6911	21.41	21.09	42.50	46.00	-3.50	Horizontal	
366.0865	21.22	21.48	42.70	46.00	-3.30	Horizontal	
468.1650	19.35	23.55	42.90	46.00	-3.10	Horizontal	

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dB μ V/m)		Factor Corr. (dB)	Result(dB μ V/m)		Limit(dB μ V/m)		Margin(dB μ V/m)		Polarizati on
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2441.001	97.15	100.78	-7.35	89.80	93.43	-	-	-	-	Vertical
*4882.003	47.96	50.25	0.14	48.10	50.39	54	74	-5.90	-23.61	Vertical
*7323.005	43.36	45.36	3.24	46.60	48.60	54	74	-7.40	-25.40	Vertical
2441.001	100.45	104.90	-7.35	93.10	97.55	-	-	-	-	Horizontal
*4882.003	49.86	52.08	0.14	50.00	52.22	54	74	-4.00	-21.78	Horizontal
*7323.005	44.36	46.61	3.24	47.60	49.85	54	74	-6.40	-24.15	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.

2. *: Denotes restricted band of operation.

Date of Test: August 27-28, 2008
 EUT: Bluetooth Optical Mouse
 Model No.: U400
 Test Mode: TX (2480MHz)

Temperature: 25°C
 Humidity: 53%
 Power Supply: DC 3V
 Test Engineer: Feng

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB μ V/m)	Factor Corr.	Result (dB μ V/m)		Limit (dB μ V/m)	Margin (dB)	Polarization
			QP	(dB)	QP	QP	
259.4433	23.98	18.52	42.50	46.00	-3.50	Vertical	
271.5686	24.87	18.23	43.10	46.00	-2.90	Vertical	
285.2610	24.04	18.46	42.50	46.00	-3.50	Vertical	
354.6911	21.81	21.09	42.90	46.00	-3.10	Vertical	
366.0865	21.32	21.48	42.80	46.00	-3.20	Vertical	
377.8480	21.56	21.54	43.10	46.00	-2.90	Vertical	
259.4433	24.58	18.52	43.10	46.00	-2.90	Horizontal	
271.5686	24.07	18.23	42.30	46.00	-3.70	Horizontal	
354.6911	21.71	21.09	42.80	46.00	-3.20	Horizontal	
366.0865	21.32	21.48	42.80	46.00	-3.20	Horizontal	
377.8480	21.66	21.54	43.20	46.00	-2.80	Horizontal	
389.9873	20.82	21.88	42.70	46.00	-3.30	Horizontal	

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dB μ V/m)		Factor Corr. (dB)	Result(dB μ V/m)		Limit(dB μ V/m)		Margin(dB μ V/m)		Polarizati on
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2479.999	95.17	99.31	-7.37	87.80	91.94	-	-	-	-	Vertical
*4959.998	49.18	51.09	0.52	49.70	51.61	54	74	-4.30	-22.39	Vertical
*7439.996	42.41	44.75	3.69	46.10	48.44	54	74	-7.90	-25.56	Vertical
2479.999	98.67	102.98	-7.37	91.30	95.61	-	-	-	-	Horizontal
*4959.998	50.08	52.29	0.52	50.60	52.81	54	74	-3.40	-21.19	Horizontal
*7439.996	43.81	46.09	3.69	47.50	49.78	54	74	-6.50	-24.22	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.

2. *: Denotes restricted band of operation.


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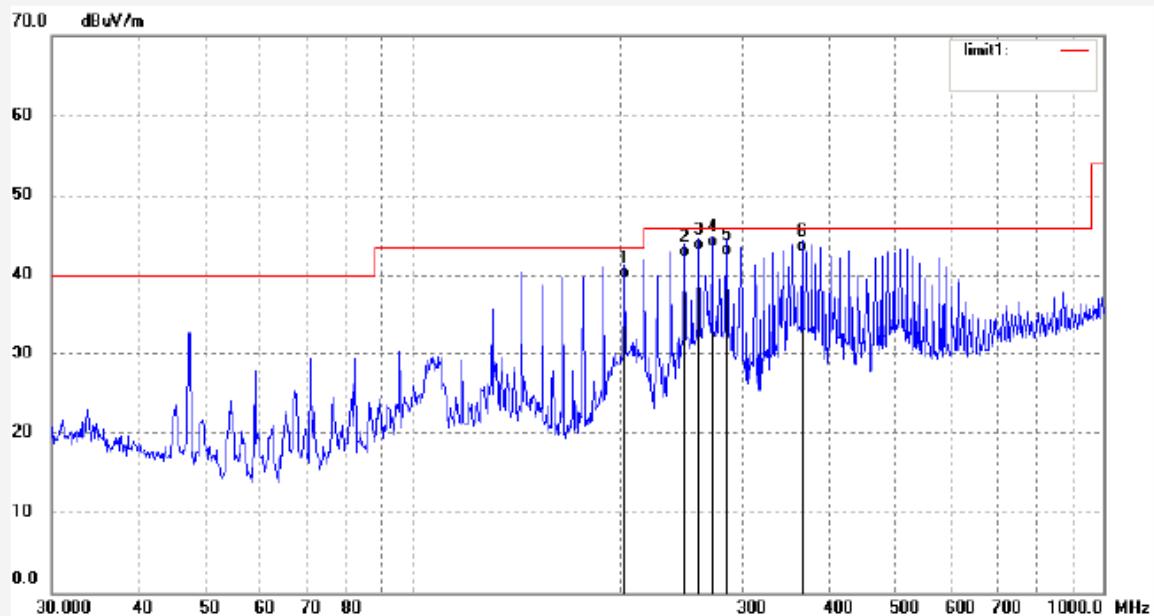
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: RTTE #356
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2402MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Horizontal
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 13:44:03
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	202.8745	24.57	15.03	39.60	43.50	-3.90	QP	
2	247.8591	24.86	17.34	42.20	46.00	-3.80	QP	
3	259.4433	24.58	18.52	43.10	46.00	-2.90	QP	
4	271.5686	25.27	18.23	43.50	46.00	-2.50	QP	
5	285.2610	23.94	18.46	42.40	46.00	-3.60	QP	
6	366.0865	21.42	21.48	42.90	46.00	-3.10	QP	


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Site: 966 chamber

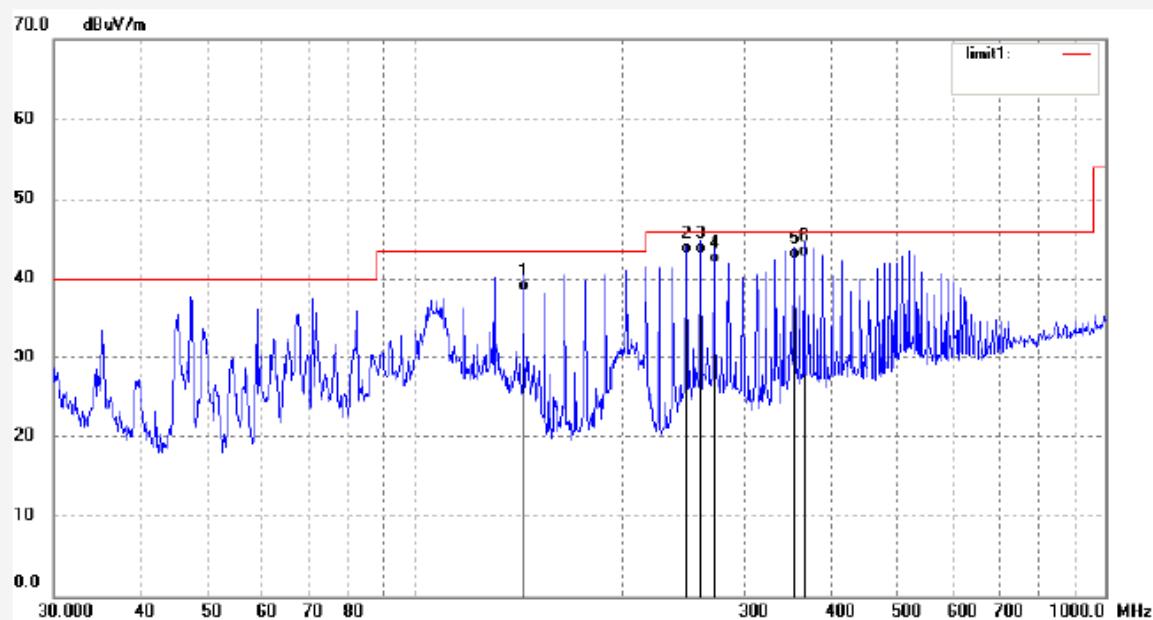
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #357
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2402MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 13:45/08
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	143.7760	23.92	14.48	38.40	43.50	-5.10	QP	
2	247.8593	25.76	17.34	43.10	46.00	-2.90	QP	
3	259.4433	24.68	18.52	43.20	46.00	-2.80	QP	
4	271.5686	23.67	18.23	41.90	46.00	-4.10	QP	
5	354.6911	21.41	21.09	42.50	46.00	-3.50	QP	
6	366.0865	21.22	21.48	42.70	46.00	-3.30	QP	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #354

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3V

Test item: Radiation Test

Date: 08/08/27

Temp.(C)/Hum.(%) 25 C / 52 %

Time: 11/43/11

EUT: Bluetooth Optical Mouse

Engineer Signature:

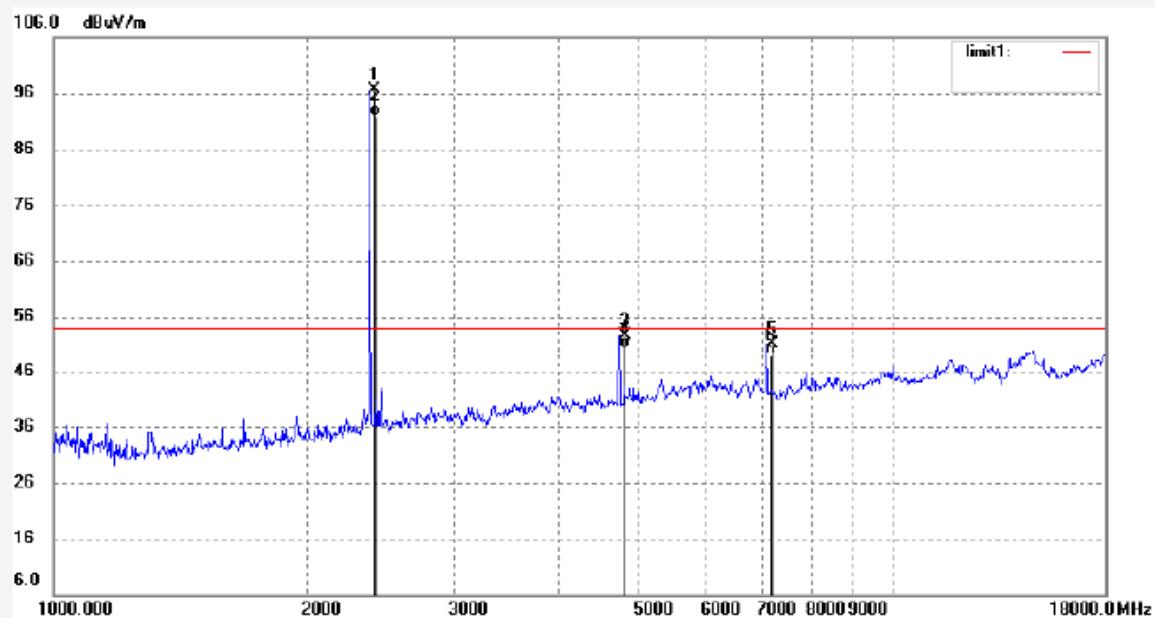
Mode: TX 2402MHz

Distance: 3m

Model: U400

Manufacturer: Eastern Times

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2401.999	104.01	-7.45	96.56	-	-	peak	
2	2401.999	99.45	-7.45	92.00	-	-	AVG	
3	4803.997	52.84	-0.30	52.54	74.00	-21.46	peak	
4	4803.997	50.60	-0.30	50.30	54.00	-3.70	AVG	
5	7205.996	48.10	2.97	51.07	74.00	-22.93	peak	
6	7205.996	45.93	2.97	48.90	54.00	-5.10	AVG	


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Site: 966 chamber

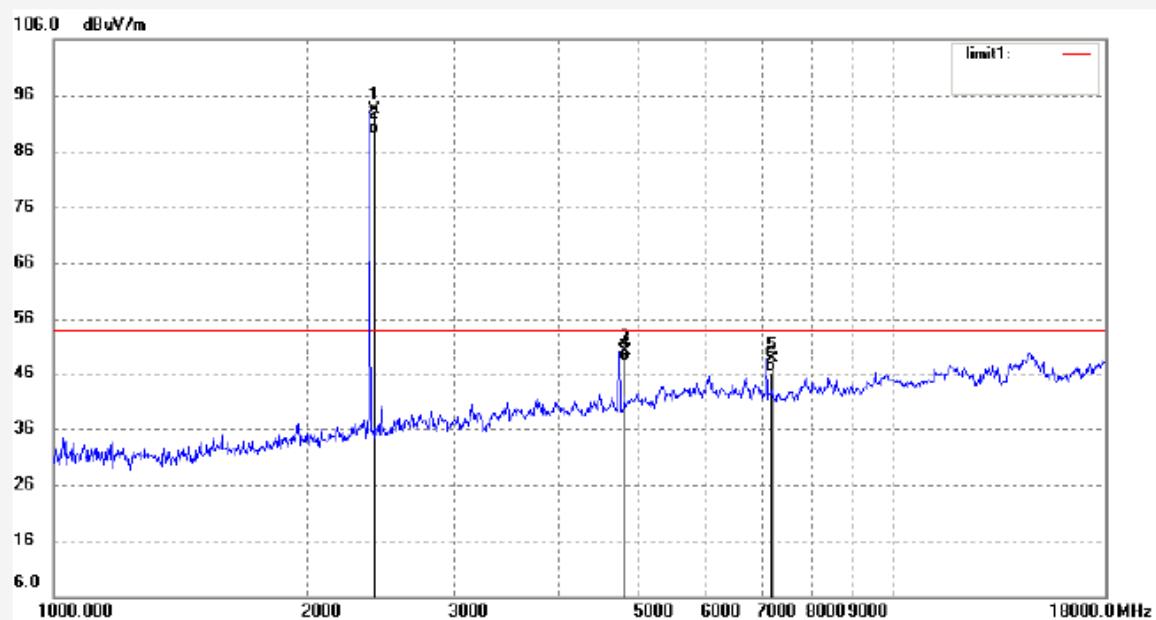
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #355
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 52 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2402MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 11/49/28
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2401.999	100.87	-7.45	93.42	-	-	peak	
2	2401.999	96.65	-7.45	89.20	-	-	AVG	
3	4803.997	50.42	-0.30	50.12	74.00	-23.88	peak	
4	4803.997	48.40	-0.30	48.10	54.00	-5.90	AVG	
5	7205.996	45.55	2.97	48.52	74.00	-25.48	peak	
6	7205.996	43.23	2.97	46.20	54.00	-7.80	AVG	

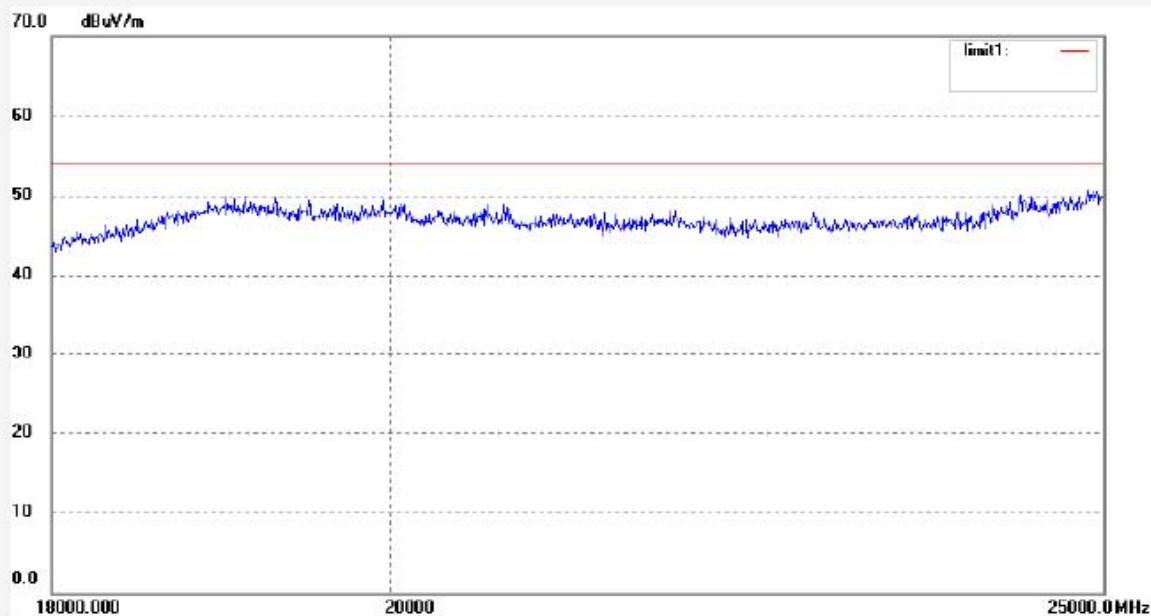

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 Fax:+86-0755-26503396

Job No.: RTTE #367	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3V
Test item: Radiation Test	Date: 08/08/28/
Temp.(C)/Hum.(%) 25 C / 53 %	Time: 8/54/24
EUT: Bluetooth Optical Mouse	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: U400	
Manufacturer: Eastern Times	

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
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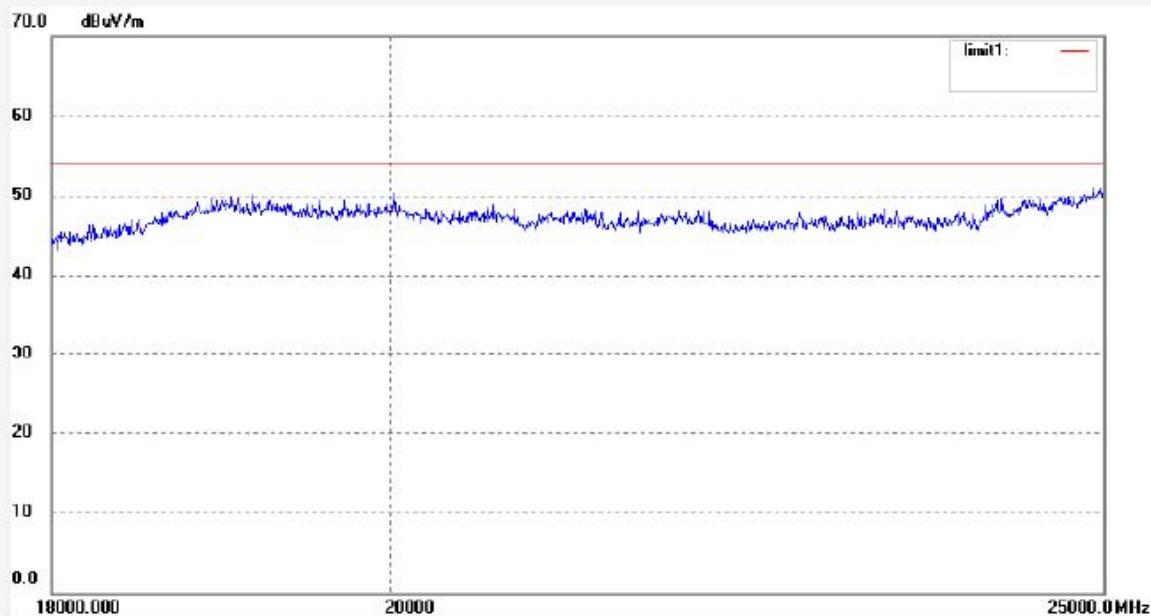
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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: RTTE #366
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2402MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/28/
 Time: 8/52/52
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
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Site: 966 chamber

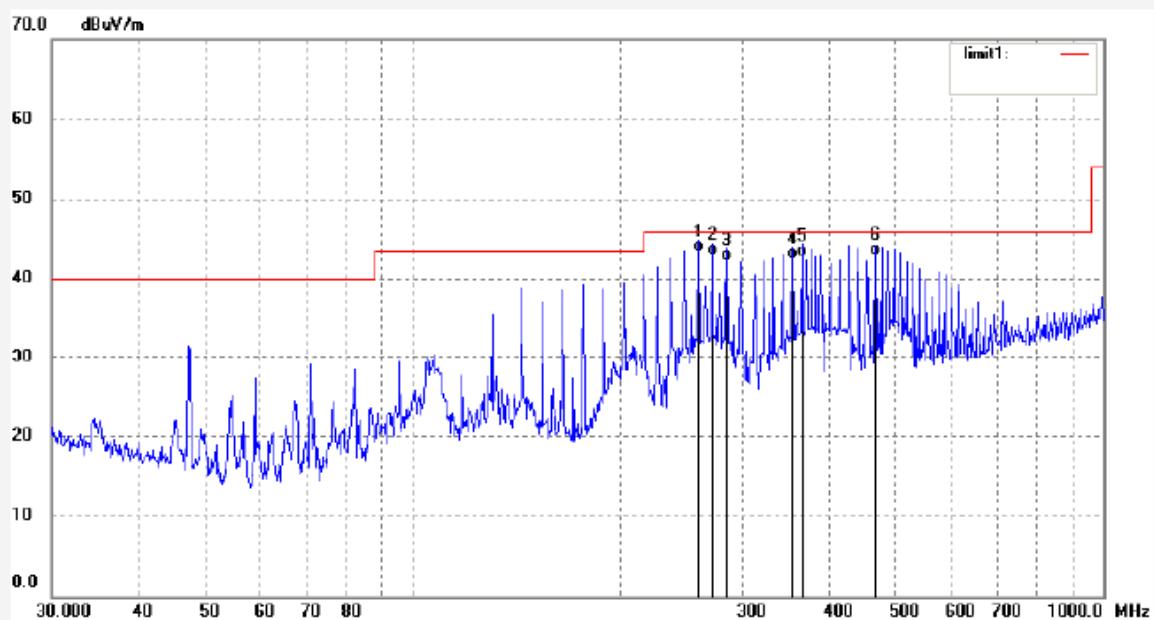
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #359
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2441MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Horizontal
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 13:49:37
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	259.4433	24.88	18.52	43.40	46.00	-2.60	QP	
2	271.5686	24.67	18.23	42.90	46.00	-3.10	QP	
3	285.2610	23.84	18.46	42.30	46.00	-3.70	QP	
4	354.6911	21.41	21.09	42.50	46.00	-3.50	QP	
5	366.0865	21.22	21.48	42.70	46.00	-3.30	QP	
6	468.1650	19.35	23.55	42.90	46.00	-3.10	QP	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #358

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3V

Test item: Radiation Test

Date: 08/08/27

Temp.(C)/Hum.(%) 25 C / 53 %

Time: 13:48:44

EUT: Bluetooth Optical Mouse

Engineer Signature:

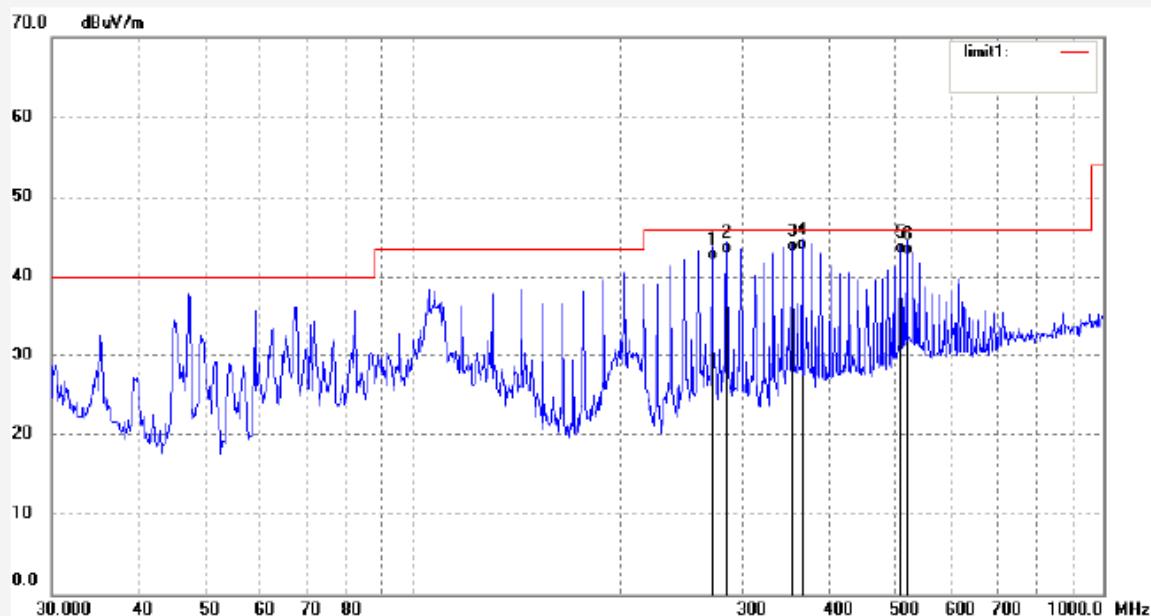
Mode: TX 2441MHz

Distance: 3m

Model: U400

Manufacturer: Eastern Times

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	271.5686	23.87	18.23	42.10	46.00	-3.90	QP	
2	285.2610	24.44	18.46	42.90	46.00	-3.10	QP	
3	354.6911	22.11	21.09	43.20	46.00	-2.80	QP	
4	366.0865	21.82	21.48	43.30	46.00	-2.70	QP	
5	509.3559	18.78	24.12	42.90	46.00	-3.10	QP	
6	520.2078	18.72	24.08	42.80	46.00	-3.20	QP	


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Site: 966 chamber

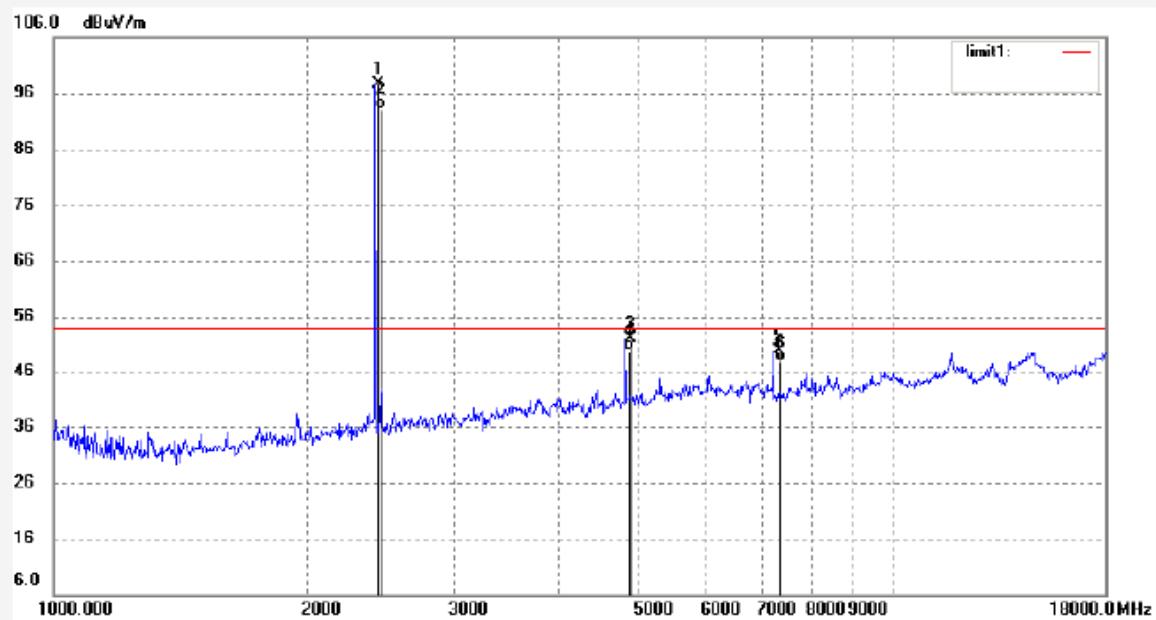
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #353
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2441MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Horizontal
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 11/40/23
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2441.001	104.90	-7.35	97.55	-	-	peak	
2	2441.001	100.45	-7.35	93.10	-	-	AVG	
3	4882.003	52.08	0.14	52.22	74.00	-21.78	peak	
4	4882.003	49.86	0.14	50.00	54.00	-4.00	AVG	
5	7323.005	46.61	3.24	49.85	74.00	-24.15	peak	
6	7323.005	44.36	3.24	47.60	54.00	-6.40	AVG	


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Site: 966 chamber

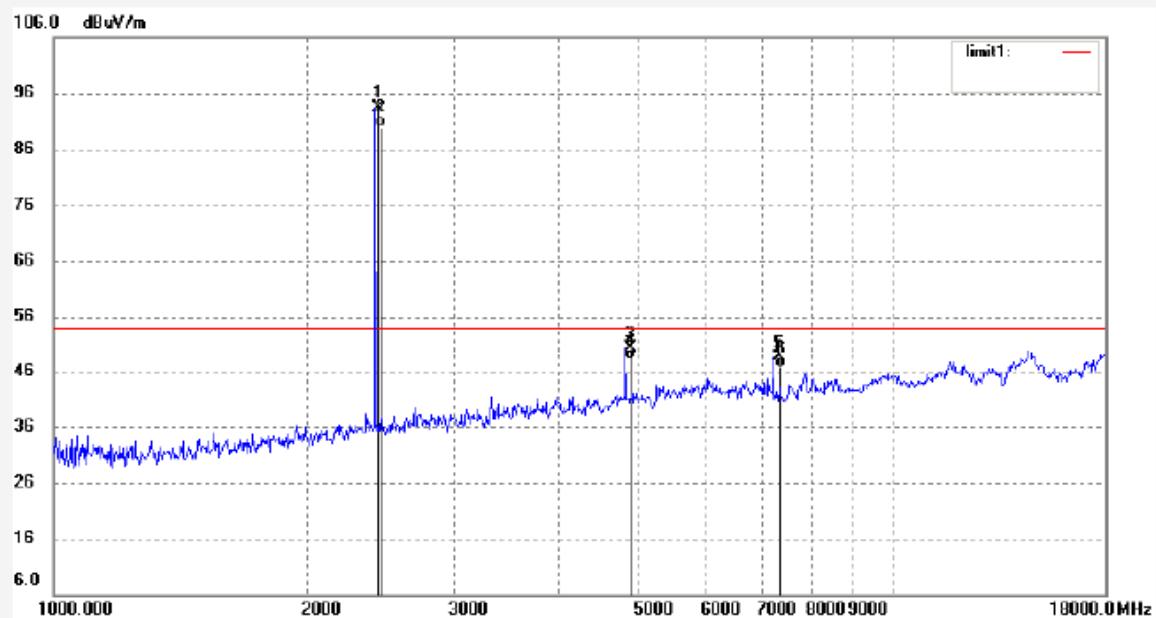
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #352
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2441MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 11/38/01
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2441.001	100.78	-7.35	93.43	-	-	peak	
2	2441.001	97.15	-7.35	89.80	-	-	AVG	
3	4882.003	50.25	0.14	50.39	74.00	-23.61	peak	
4	4882.003	47.96	0.14	48.10	54.00	-5.90	AVG	
5	7323.005	45.36	3.24	48.60	74.00	-25.40	peak	
6	7323.005	43.36	3.24	46.60	54.00	-7.40	AVG	

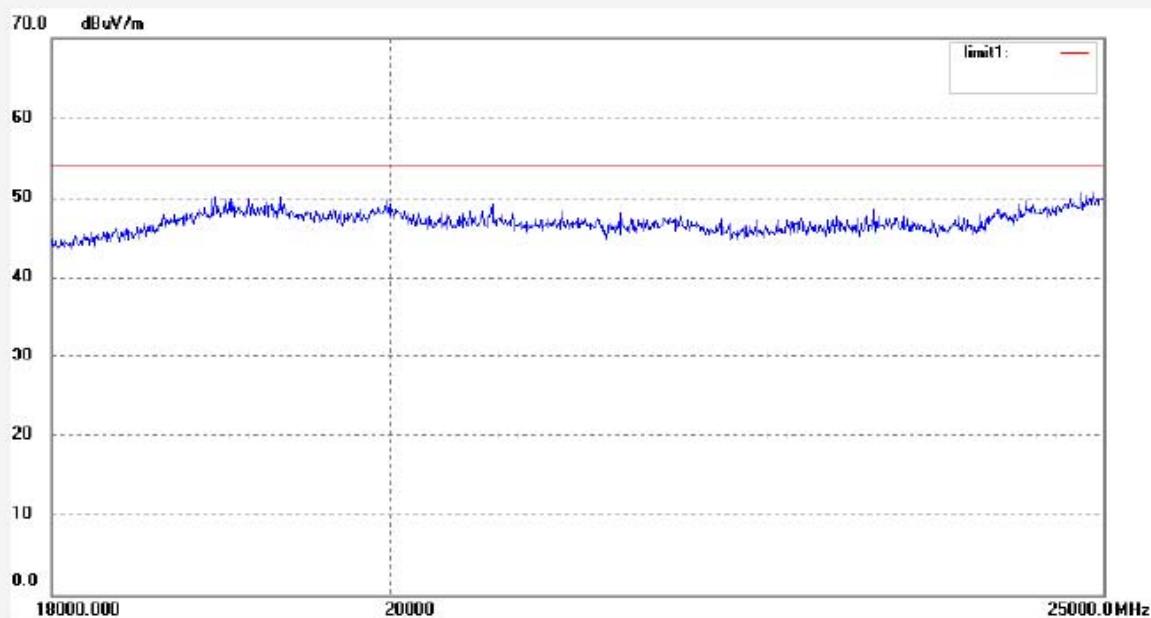

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: RTTE #364	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3V
Test item: Radiation Test	Date: 08/08/28/
Temp.(C)/Hum.(%) 25 C / 53 %	Time: 8/48/57
EUT: Bluetooth Optical Mouse	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: U400	
Manufacturer: Eastern Times	

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
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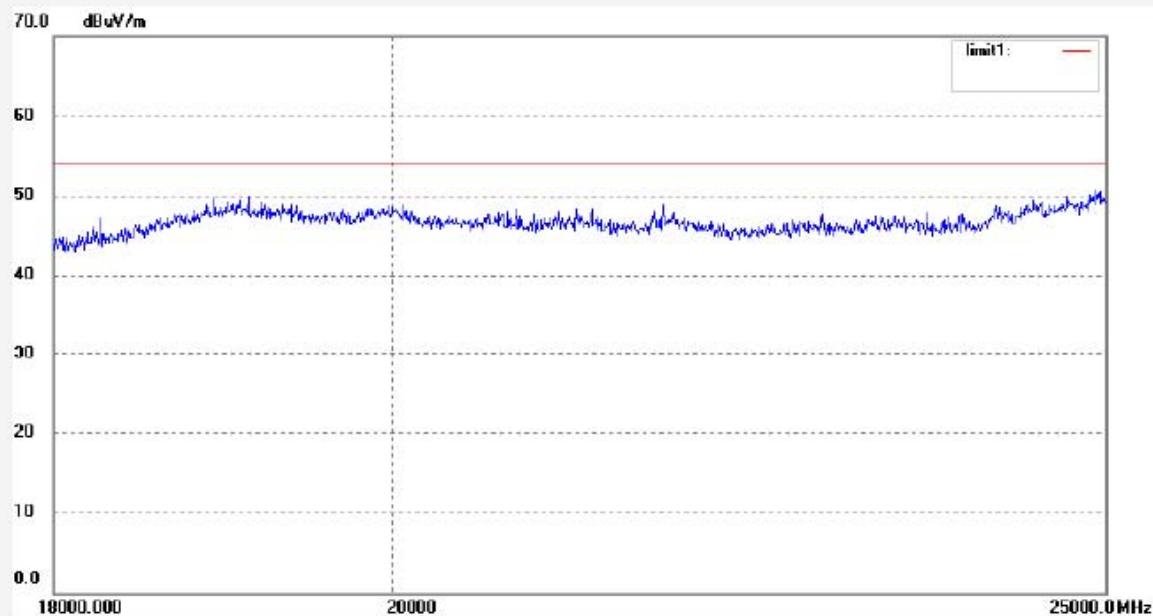
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: RTTE #365
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2441MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/28/
 Time: 8/50/00
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #360

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3V

Test item: Radiation Test

Date: 08/08/27

Temp.(C)/Hum.(%) 25 C / 53 %

Time: 13/50/38

EUT: Bluetooth Optical Mouse

Engineer Signature:

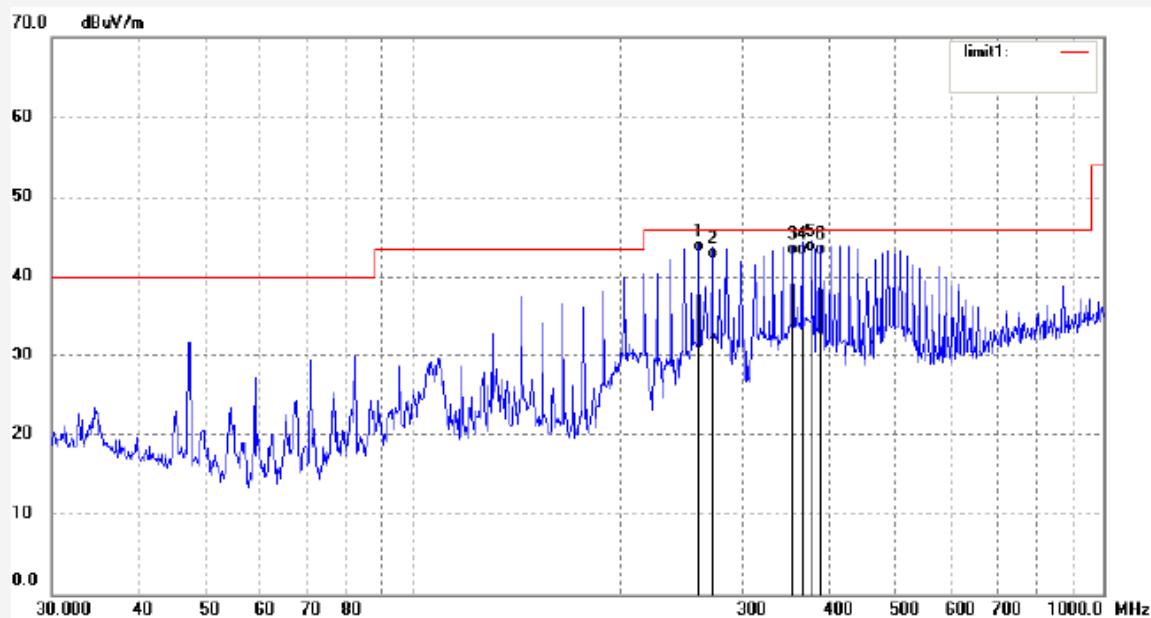
Mode: TX 2480MHz

Distance: 3m

Model: U400

Manufacturer: Eastern Times

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	259.4433	24.58	18.52	43.10	46.00	-2.90	QP	
2	271.5686	24.07	18.23	42.30	46.00	-3.70	QP	
3	354.6911	21.71	21.09	42.80	46.00	-3.20	QP	
4	366.0865	21.32	21.48	42.80	46.00	-3.20	QP	
5	377.8480	21.66	21.54	43.20	46.00	-2.80	QP	
6	389.9873	20.82	21.88	42.70	46.00	-3.30	QP	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #361

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3V

Test item: Radiation Test

Date: 08/08/27

Temp.(C)/Hum.(%) 25 C / 53 %

Time: 13/51/21

EUT: Bluetooth Optical Mouse

Engineer Signature:

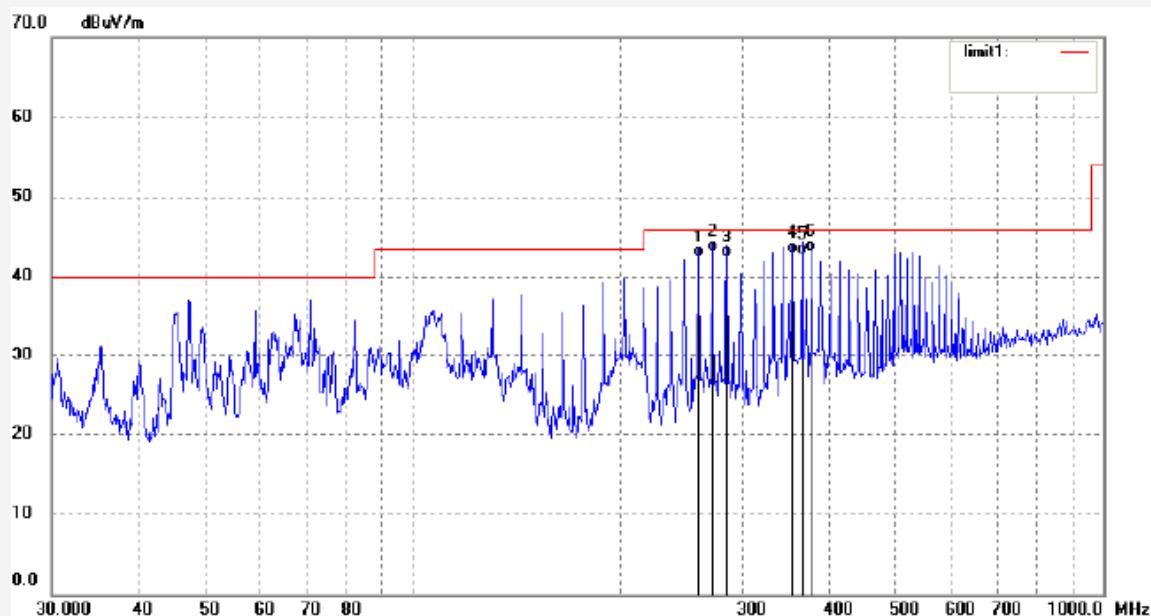
Mode: TX 2480MHz

Distance: 3m

Model: U400

Manufacturer: Eastern Times

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	259.4433	23.98	18.52	42.50	46.00	-3.50	QP	
2	271.5686	24.87	18.23	43.10	46.00	-2.90	QP	
3	285.2610	24.04	18.46	42.50	46.00	-3.50	QP	
4	354.6911	21.81	21.09	42.90	46.00	-3.10	QP	
5	366.0865	21.32	21.48	42.80	46.00	-3.20	QP	
6	377.8480	21.56	21.54	43.10	46.00	-2.90	QP	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #350

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3V

Test item: Radiation Test

Date: 08/08/27

Temp.(C)/Hum.(%) 25 C / 53 %

Time: 11/18/38

EUT: Bluetooth Optical Mouse

Engineer Signature:

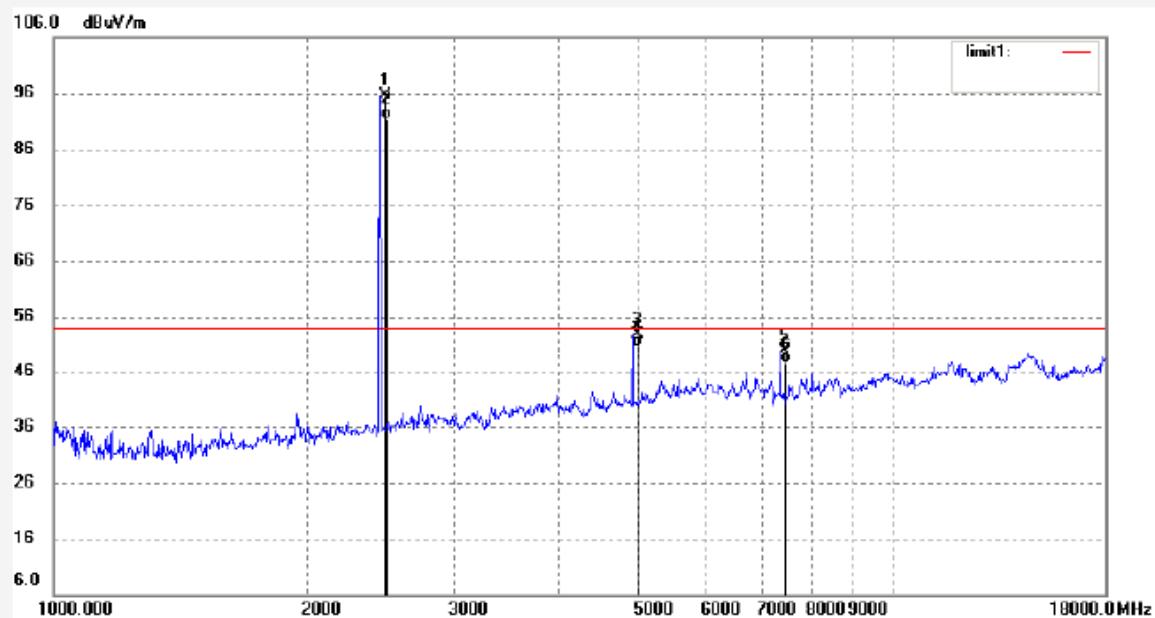
Mode: TX 2480MHz

Distance: 3m

Model: U400

Manufacturer: Eastern Times

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2479.999	102.98	-7.37	95.61	-	-	peak	
2	2479.999	98.67	-7.37	91.30	-	-	AVG	
3	4959.998	52.29	0.52	52.81	74.00	-21.19	peak	
4	4959.998	50.08	0.52	50.60	54.00	-3.40	AVG	
5	7439.996	46.09	3.69	49.78	74.00	-24.22	peak	
6	7439.996	43.81	3.69	47.50	54.00	-6.50	AVG	


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Site: 966 chamber

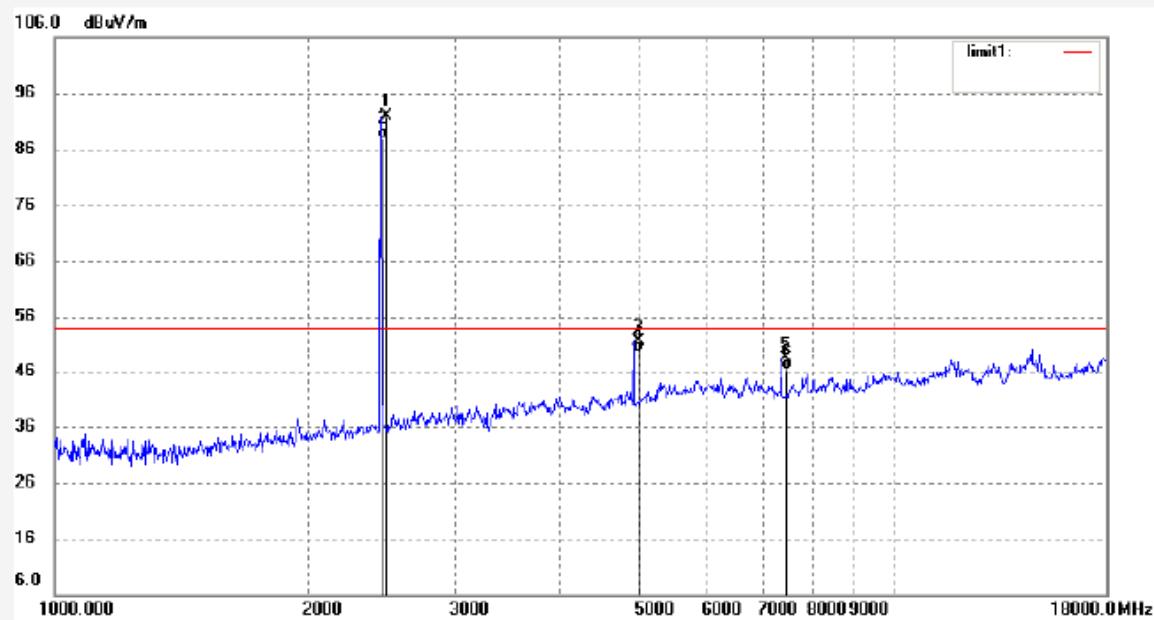
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: RTTE #351
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 53 %
 EUT: Bluetooth Optical Mouse
 Mode: TX 2480MHz
 Model: U400
 Manufacturer: Eastern Times

Polarization: Vertical
 Power Source: DC 3V
 Date: 08/08/27/
 Time: 11/34/11
 Engineer Signature:
 Distance: 3m

Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2479.999	99.31	-7.37	91.94	-	-	peak	
2	2479.999	95.17	-7.37	87.80	-	-	AVG	
3	4959.998	51.09	0.52	51.61	74.00	-22.39	peak	
4	4959.998	49.18	0.52	49.70	54.00	-4.30	AVG	
5	7439.996	44.75	3.69	48.44	74.00	-25.56	peak	
6	7439.996	42.41	3.69	46.10	54.00	-7.90	AVG	

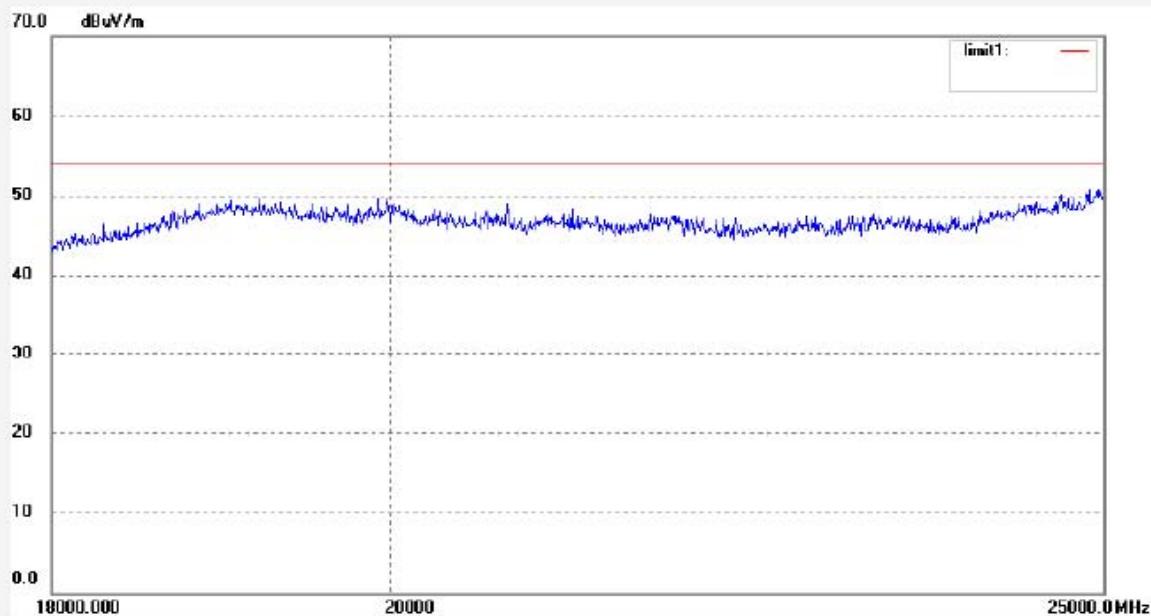

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 Site: 966 chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.: RTTE #363	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3V
Test item: Radiation Test	Date: 08/08/28/
Temp.(C)/Hum.(%) 25 C / 53 %	Time: 8/47/29
EUT: Bluetooth Optical Mouse	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: U400	
Manufacturer: Eastern Times	

Note: Sample No.:083203 Report No.:ATE20081574



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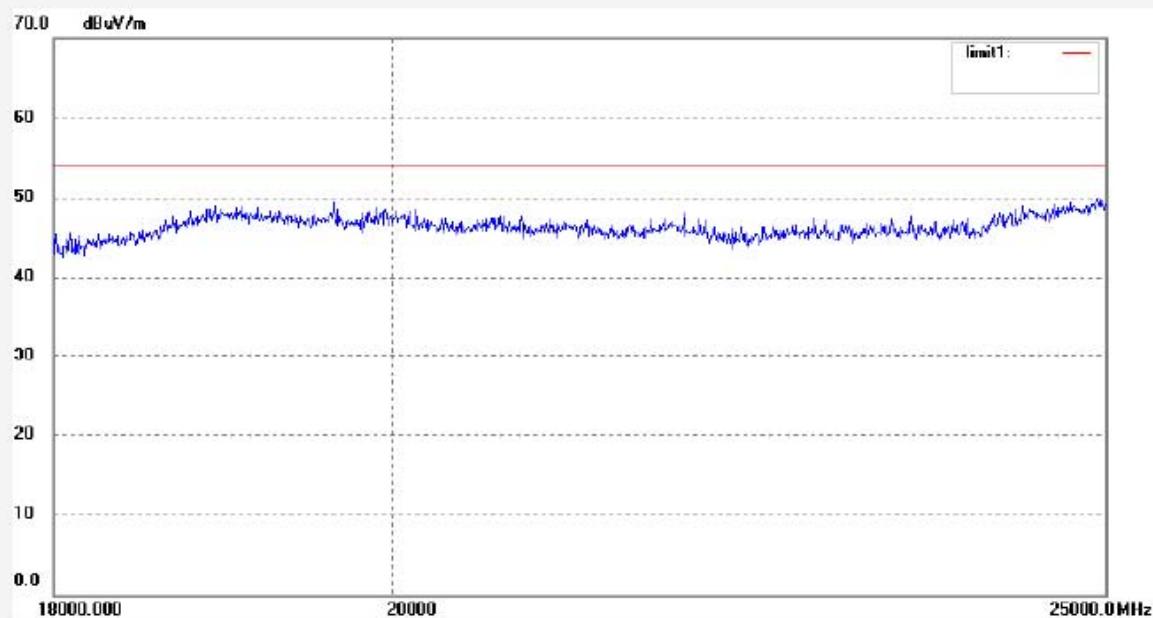

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 Site: 966 chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.:	RTTE #362	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3V
Test item:	Radiation Test	Date:	08/08/28/
Temp.(C)/Hum.(%)	25 C / 53 %	Time:	8/46/28
EUT:	Bluetooth Optical Mouse	Engineer Signature:	
Mode:	TX 2480MHz	Distance:	3m
Model:	U400		
Manufacturer: Eastern Times			

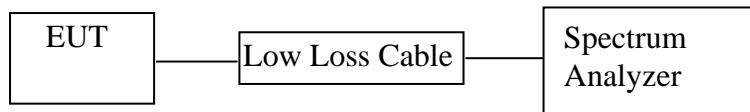
Note: Sample No.:083203 Report No.:ATE20081574



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
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11. BAND EDGE COMPLIANCE TEST

11.1. Block Diagram of Test Setup



(EUT: Bluetooth Optical Mouse)

11.2. 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).

11.3. 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.

11.3.1. Bluetooth Optical Mouse (EUT)

Model Number	:	U400
Serial Number	:	N/A
Manufacturer	:	Eastern Times Technology Co., Ltd.

11.4.Operating Condition of EUT

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

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz with convenient frequency span including 100kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

11.6. Test Result

Pass

11.6.1. Conducted test

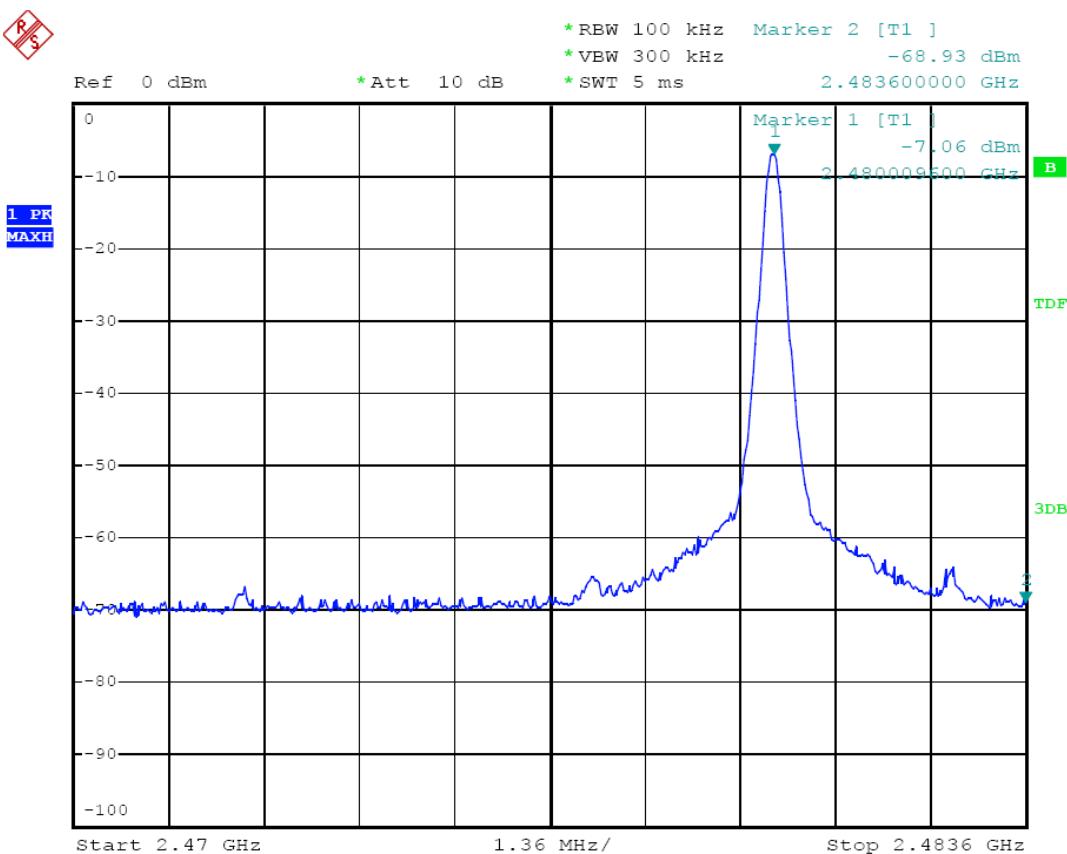
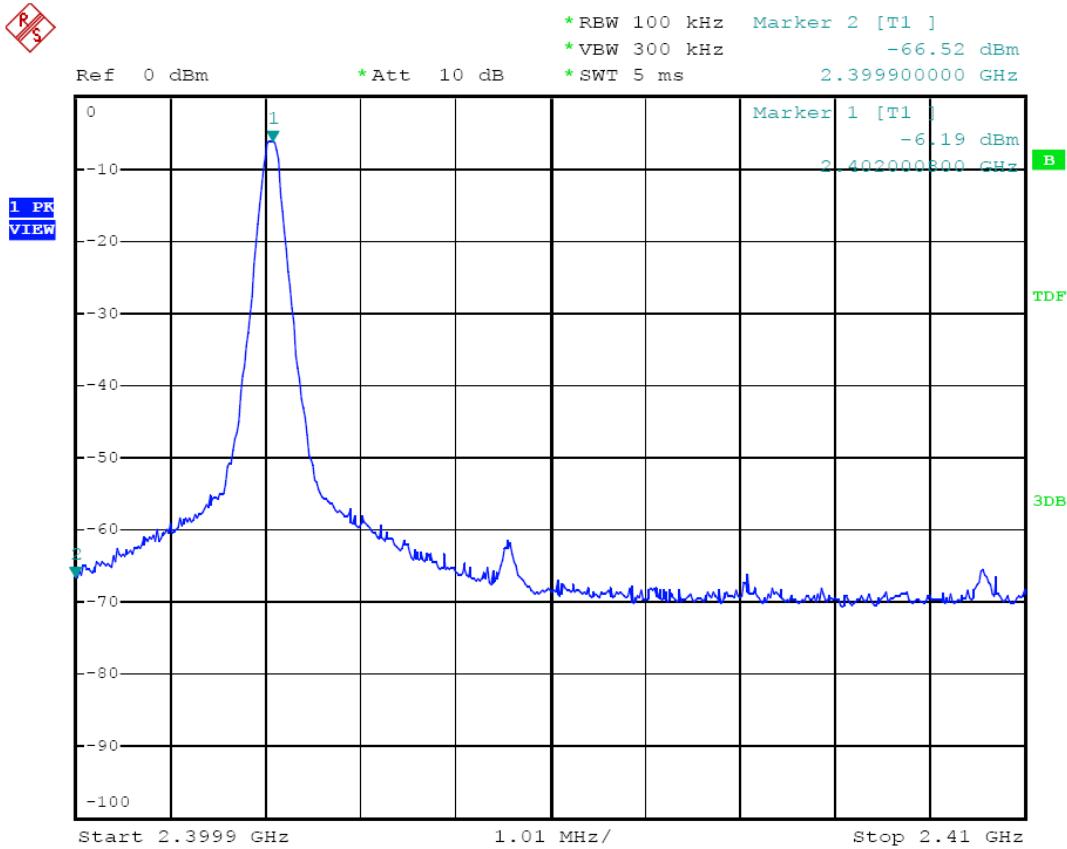
Frequency (MHz)	Peak Power Output (dBm)	Emission Read Value (dBm)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2402	-6.19	-66.52	60.33	> 20dBc
2480	-7.06	-68.93	61.87	> 20dBc

11.6.2. Radiated emission test

Lower band edge: Emission radiated outside of the lower band edge are 60.33 dB below the level of the fundamental.

Upper band edge: Emission radiated outside of the upper band edge are 61.87 dB below the level of the fundamental.

Frequency (MHz)	The emission of carrier power strength (dB μ V/m)		The maximum field strength at the band edge (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)	
	AV	PK	AV	PK	AV	PK	AV	PK
2402	92.00	96.56	31.67	36.23	54	74	-22.33	-37.77
2480	91.30	95.61	29.43	33.74	54	74	-24.57	-40.26



12. ANTENNA REQUIREMENT

12.1. 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.

12.2. Antenna Construction

The antenna is PCB Layout antenna, no consideration of replacement. Therefore, the equipment complies with the antenna requirement of Section 15.203.

