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

2.4G Wireless Optical Mouse Model No.: DS-2293

FCC ID: TUV2293C

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

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

Report Number : ATE20091555

Date of Test : September 1-2, 2009 Date of Report : September 9, 2009

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Test Report Certification

Applicant : Eastern Times Technology Co., Ltd.Manufacturer : Eastern Times Technology Co., Ltd.

EUT Description : 2.4G Wireless Optical Mouse

(A) MODEL NO.: DS-2293

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: 1.5V DC ("AAA" battery 1×)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.249 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 Section15.249 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:	September 1-2, 2009	
Prepared by :	sky Long	
	(Engineer)	
Approved & Authorized Signer:	Sean (-)	
	(Manager)	

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : 2.4G Wireless Optical Mouse

Model Number : DS-2293

Power Supply : 1.5V DC ("AAA" battery $1\times$)

Operate Frequency : 2403-2473MHz

Channel Number : 16

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 28, 2009

Date of Test : September 1-2, 2009

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	03.28.2010
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	03.28.2010
Spectrum Analyzer	Agilent	E7405A	MY45115511	03.28.2010
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	03.30.2010
Loop Antenna	Schwarzbeck	FMZB1516	1516131	03.28.2010
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	03.28.2010
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	12.19.2009
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	10.09.2009
LISN	Rohde&Schwarz	ESH3-Z5	100305	03.28.2010
LISN	Schwarzbeck	NSLK8126	8126431	03.28.2010

3. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission	N/A
Section 15.249(a)	Fundamental and Harmonics Radiated Emission	Compliant
Section 15.249(d)	Spurious Radiated Emission	Compliant
Section 15.249(d)	Band Edge	Compliant

Remark: "N/A" means "Not applicable".

4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A)

4.1.Block Diagram of Test Setup

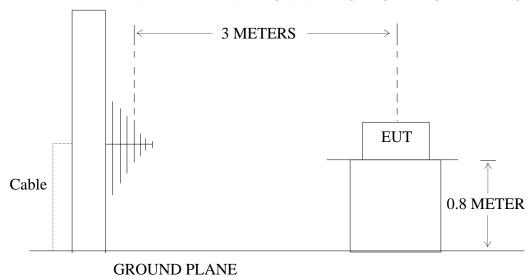
4.1.1.Block diagram of connection between the EUT and simulators



(EUT: 2.4G Wireless Optical Mouse)

4.1.2.Semi-Anechoic Chamber Test Setup Diagram

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



(EUT: 2.4G Wireless Optical Mouse)

4.2. The Emission Limit

4.2.1.For intentional radiators, According to section 15.249(a), Operation within the frequency band of 2.4 to 2.4835GHz, The fundamental field strength shall not exceed 94 dB μ V/m and the harmonics shall not exceed 54 dB μ V/m.

Fundamental	Field Strength of Fundamental	Field Strength of harmonics
Frequency	(millivolts/meter)	(microvolts/meter)
902-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

4.2.2.According to section 15.249(e), as shown in section 15.35(b), the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

4.3. 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.

4.3.1. 2.4G Wireless Optical Mouse (EUT)

Model Number : DS-2293 Serial Number : N/A

Manufacturer : Eastern Times Technology Co., Ltd.

4.4. Operating Condition of EUT

- 4.4.1. Setup the EUT and simulator as shown as Section 4.1.
- 4.4.2. Turn on the power of all equipment.
- 4.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2403-2473MHz. We are select 2403MHz, 2443MHz, 2473MHz TX frequency to transmit.

4.5.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 EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 1MHz.

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

Date of Test: September 1-2, 2009 Temperature: 25°C

EUT: 2.4G Wireless Optical Mouse Humidity: 50%

Model No.: DS-2293 Power Supply: 1.5V DC ("AAA" battery 1×)

Test Mode: TX 2403MHz Test Engineer: Joe

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	n(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2403.018	86.01	91.48	-7.45	78.56	84.03	94	114	-15.44	-29.97	Vertical
2403.018	90.47	96.04	-7.45	83.02	88.59	94	114	-10.98	-25.41	Horizontal

Harmonics Radiated Emissions

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	n(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4806.031	45.23	50.79	-0.28	44.95	50.51	54	74	-9.05	-23.49	Vertical
4806.031	46.99	52.48	-0.28	46.71	52.20	54	74	-7.29	-21.80	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

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: September 1-2, 2009 Temperature: 25°C

EUT: 2.4G Wireless Optical Mouse Humidity: 50%

Model No.: DS-2293 Power Supply: 1.5V DC ("AAA" battery 1×)

Test Mode: TX 2443MHz Test Engineer: Joe

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	in(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2443.017	87.67	93.24	-7.35	80.32	85.89	94	114	-13.68	-28.11	Vertical
2443.017	89.89	95.40	-7.35	82.54	88.05	94	114	-11.46	-25.95	Horizontal

Harmonics Radiated Emissions

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	n(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4886.030	44.03	49.56	0.16	44.19	49.72	54	74	-9.81	-24.28	Vertical
4886.030	44.63	50.17	0.16	44.79	50.33	54	74	-9.21	-23.67	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:

 $Result = Reading + Corrected \ Factor$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: September 1-2, 2009 Temperature: 25°C

EUT: 2.4G Wireless Optical Mouse Humidity: 50%

Model No.: DS-2293 Power Supply: 1.5V DC ("AAA" battery 1×)

Test Mode: TX 2473MHz Test Engineer: Joe

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	in(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2473.016	87.94	93.50	-7.36	80.58	86.14	94	114	-13.42	-27.86	Vertical
2473.016	89.57	95.13	-7.36	82.21	87.77	94	114	-11.79	-26.23	Horizontal

Harmonics Radiated Emissions

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	n(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4946.029	42.64	48.18	0.46	43.10	48.64	54	74	-10.90	-25.36	Vertical
4946.029	44.74	50.37	0.46	45.20	50.83	54	74	-8.80	-23.17	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

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)

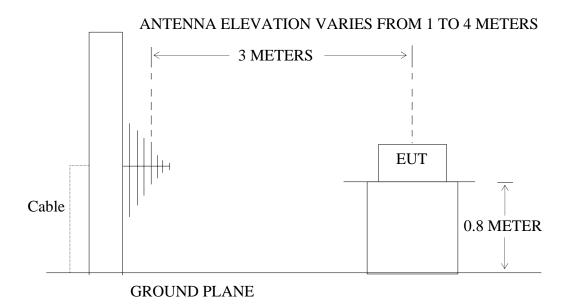
5.1.Block Diagram of Test Setup

5.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: 2.4G Wireless Optical Mouse)

5.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: 2.4G Wireless Optical Mouse)

5.2. The Emission Limit For Section 15.249(d)

5.2.1.Emission radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

1			
		Limit	
Frequency (MHz)	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBµV/m)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is
30 - 88	100	40	performed with Average detector.
88 - 216	150	43.5	Except those frequency bands mention above, the
216 - 960	200	46	final measurement for frequencies below
Above 960	500	54	1000MHz is performed with Quasi Peak detector.

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. 2.4G Wireless Optical Mouse (EUT)

Model Number : DS-2293 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 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 2403-2473MHz. We are select 2403MHz, 2443MHz, 2473MHz TX frequency to transmit.

5.5.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 EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver 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.

5.6. The Emission Measurement Result

PASS.

Date of Test:	September 1-2, 2009	Temperature:	25°C
EUT:	2.4G Wireless Optical Mouse	Humidity:	50%
Model No.:	DS-2293	Power Supply:	1.5V DC ("AAA" battery 1×)
Test Mode:	TX 2403MHz	Test Engineer:	Joe

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

 $Result = Reading + Corrected \ Factor$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:September 1-2, 2009Temperature:25°CEUT:2.4G Wireless Optical MouseHumidity:50%Model No.:DS-2293Power Supply:1.5V DC ("AAA" battery 1×)Test Mode:TX 2443MHzTest Engineer:Joe

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

 $Result = Reading + Corrected \ Factor$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:September 1-2, 2009Temperature:25°CEUT:2.4G Wireless Optical MouseHumidity:50%Model No.:DS-2293Power Supply:1.5V DC ("AAA" battery 1×)Test Mode:TX 2473MHzTest Engineer:Joe

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

 $Result = Reading + Corrected \ Factor$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

6. BAND EDGES

6.1.The Requirement

6.1.1.Band Edge from 2400MHz to 2483.5MHz. Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

6.2.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.

6.2.1. 2.4G Wireless Optical Mouse (EUT)

Model Number : DS-2293 Serial Number : N/A

Manufacturer : Eastern Times Technology Co., Ltd.

6.3. Operating Condition of EUT

- 6.3.1. Setup the EUT and simulator as shown as Section 4.1.
- 6.3.2. Turn on the power of all equipment.
- 6.3.3. Let the EUT work in TX modes measure it. The transmit frequency are 2403-2473MHz. We are select 2403MHz, 2473MHz TX frequency to transmit.

6.4. Test Procedure

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 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. The Measurement Result

Pass.

Date of Test:	September 1, 2009	Temperature:	25°C
EUT:	2.4G Wireless Optical Mouse	Humidity:	50%
Model No.:	DS-2293	Power Supply:	1.5V DC ("AAA" battery 1×)
Test Mode:	TX 2403MHz	Test Engineer:	Joe

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margi	Polarization	
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2400	-	-	-	-	-	-	-	-	-	Vertical
2400	_	_	-	_	-	-	-	-	-	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

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: September 1, 2009

EUT: 2.4G Wireless Optical Mouse

Model No.: DS-2293

Test Mode: TX 2473MHz

Test Engineer: 25°C

Humidity: 50%

Power Supply: 1.5V DC ("AAA" battery 1×)

Test Engineer: Joe

Frequency	Reading(dBμV/m)		Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margi	Polarization	
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2483.5			-	-	-	-	-	-	-	Vertical
2483.5			-	-	-	-	-	-	_	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

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

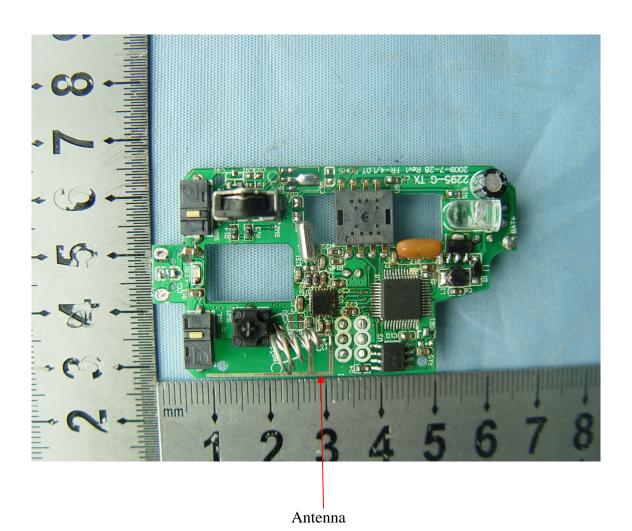
7. ANTENNA REQUIREMENT

7.1.The Requirement

7.1.1. 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.

7.2. Antenna Construction

The antenna is PCB Layout antenna, no consideration of replacement.



APPENDIX I (Test Curves)



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 1.5V

Engineer Signature: Joe

Date: 2009/09/02

Time: 22:30:33

Distance: 3m

Job No.: RTTE #2952

Standard: FCC Class B 3M Radiated

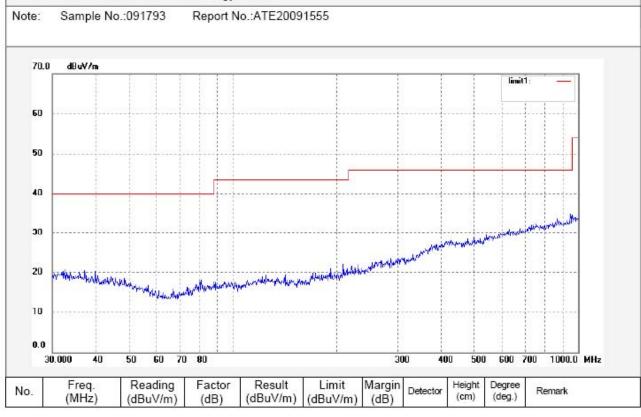
Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2403MHz Model: DS-2293

Manufacturer: Eastern Times Technology 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 1.5V

Job No.: RTTE #2951

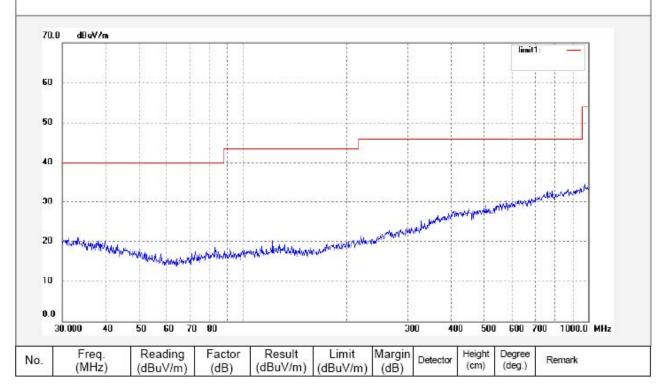
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

Note:

Date: 2009/09/02 Time: 22:27:28 EUT: 2.4G Wireless Optical Mouse Engineer Signature: Joe Mode: TX 2403MHz Distance: 3m Model: DS-2293 Manufacturer: Eastern Times Technology Co., ltd Sample No.:091793 Report No.:ATE20091555





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 #2860

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2403MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

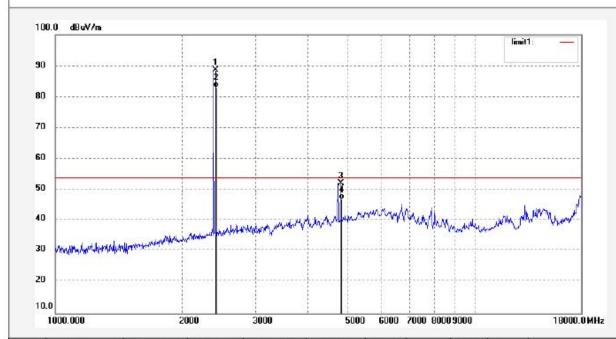
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Horizontal Power Source: DC 1.5V

Date: 2009/09/01 Time: 19:51:46

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2403.018	96.04	-7.45	88.59	114.00	-25.41	peak				
2	2403.018	90.47	-7.45	83.02	94.00	-10.98	AVG			25	
3	4806.031	52.48	-0.28	52.20	74.00	-21.80	peak				
4	4806.031	46.99	-0.28	46.71	54.00	-7.29	AVG	3	2.5	3	



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 #2859

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2403MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

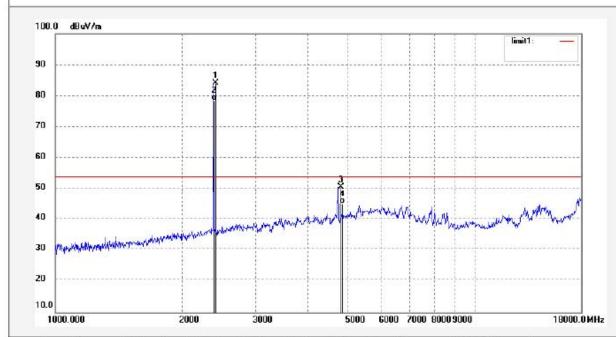
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Vertical Power Source: DC 1.5V

Date: 2009/09/01 Time: 19:47:33

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2403.018	91.48	-7.45	84.03	114.00	-29.97	peak			
2	2403.018	86.01	-7.45	78.56	94.00	-15.44	AVG			
3	4806.031	50.79	-0.28	50.51	74.00	-23.49	peak			
4	4806.031	45.23	-0.28	44.95	54.00	-9.05	AVG	3	21	



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

Polarization:

Date: 2009/09/01

Power Source: DC 1.5V

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

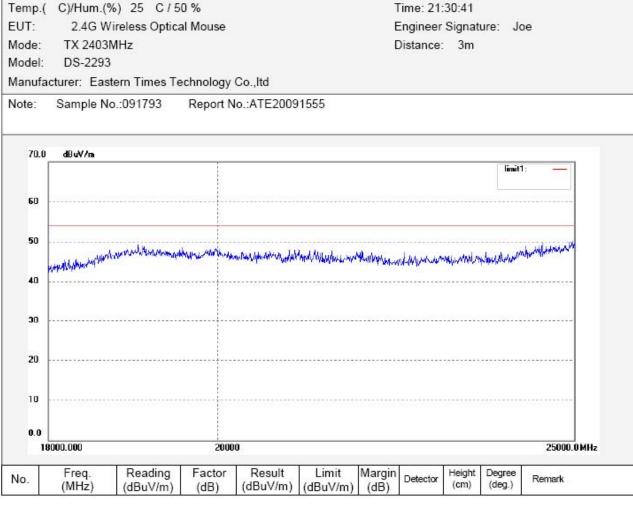
Horizontal

Job No.: RTTE #2884

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: Vertical

Date: 2009/09/01

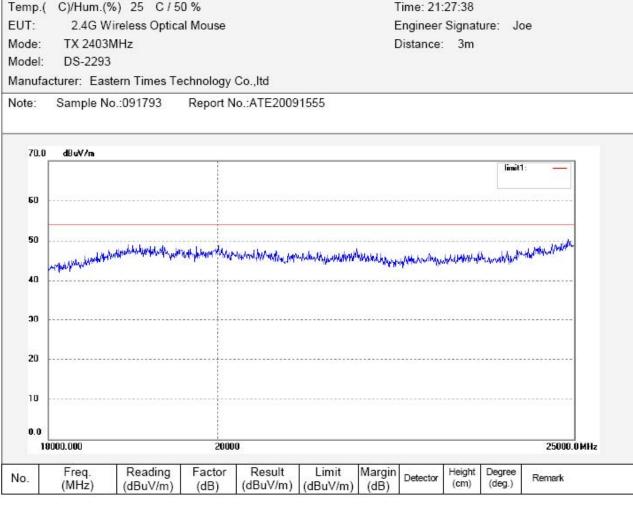
Power Source: DC 1.5V

Job No.: RTTE #2883

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

Power Source: DC 1.5V

Engineer Signature: Joe

Date: 2009/09/02

Time: 22:34:03

Distance: 3m

Job No.: RTTE #2953

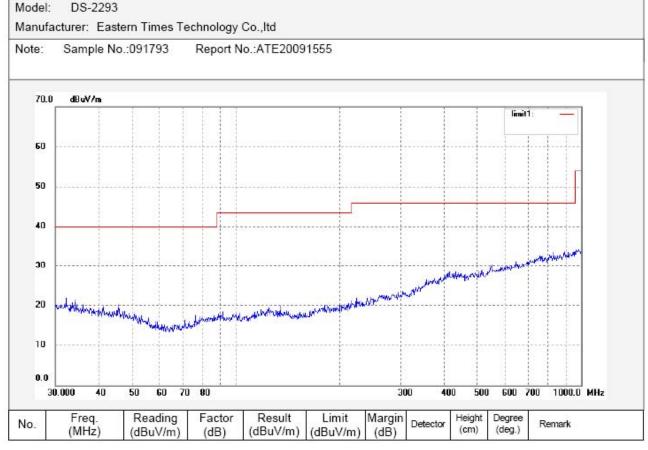
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2443MHz Model: DS-2293





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

Date: 2009/09/02

Time: 22:37:07

Distance: 3m

Power Source: DC 1.5V

Engineer Signature: Joe

Job No.: RTTE #2954

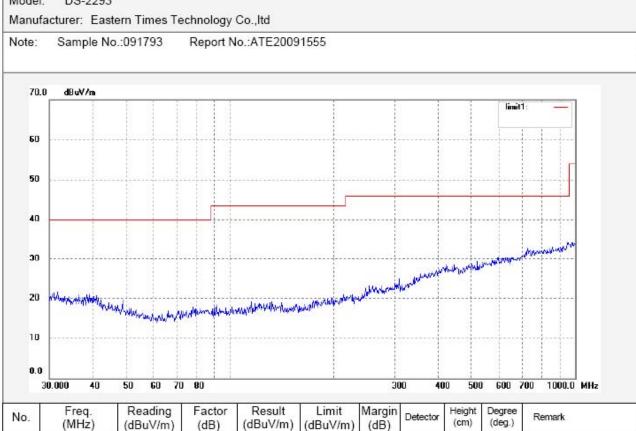
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2443MHz Model: DS-2293





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 #2861

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2443MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

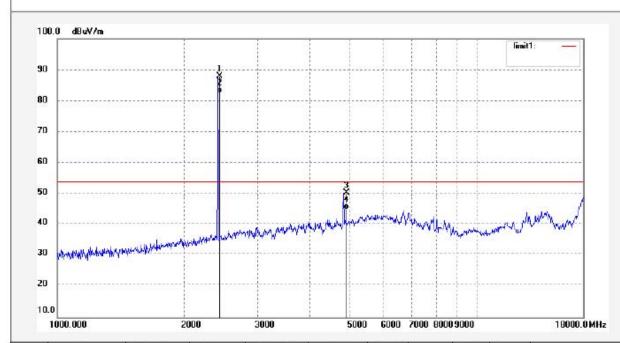
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Horizontal Power Source: DC 1.5V

Date: 2009/09/01 Time: 19:55:57

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2443.017	95.40	-7.35	88.05	114.00	-25.95	peak			
2	2443.017	89.89	-7.35	82.54	94.00	-11.46	AVG			
3	4886.030	50.17	0.16	50.33	74.00	-23.67	peak			
4	4886.030	44.63	0.16	44.79	54.00	-9.21	AVG	3	22	3



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 #2862

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2443MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

93.24

87.67

49.56

44.03

-7.35

-7.35

0.16

0.16

85.89

80.32

49.72

44.19

114.00

94.00

74.00

54.00

-28.11

-13.68

-24.28

-9.81

peak

AVG

peak

AVG

2443.017

2443.017

4886.030

4886.030

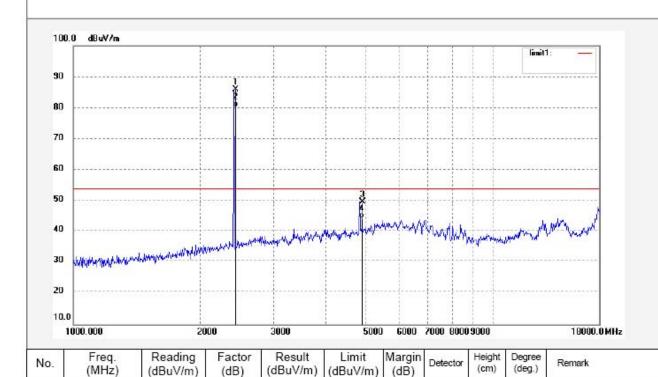
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Vertical Power Source: DC 1.5V

Date: 2009/09/01 Time: 19:59:07

Engineer Signature: Joe

Distance: 3m



1

2

3

4



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

Polarization:

Power Source: DC 1.5V

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

Horizontal

Job No.: RTTE #2885

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Date: 2009/09/01 Time: 21:34:32 Temp.(C)/Hum.(%) 25 C / 50 % EUT: 2.4G Wireless Optical Mouse Engineer Signature: Joe Mode: TX 2443MHz Distance: 3m Model: DS-2293 Manufacturer: Eastern Times Technology Co., ltd Sample No.:091793 Report No.:ATE20091555 Note: 70.0 dBuV/m limit1 60 50 40 30 20 10 18000.000 20000 25000.0 MHz Reading Freq. Factor Result Limit Margin Height Degree Detector No. Remark

(deg.) (MHz) (dBuV/m) (dBuV/m) (dB) (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

Job No.: RTTE #2886

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2443MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co.,ltd

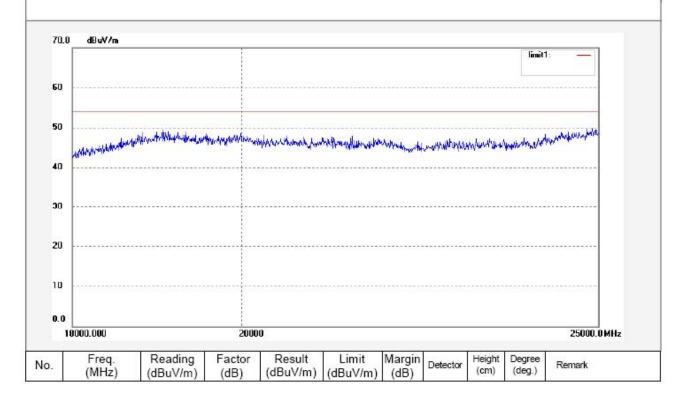
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Vertical Power Source: DC 1.5V

Date: 2009/09/01 Time: 21:37:33

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

Polarization: Horizontal

Power Source: DC 1.5V

Engineer Signature: Joe

Date: 2009/09/02

Time: 22:43:56

Distance: 3m

Job No.: RTTE #2956

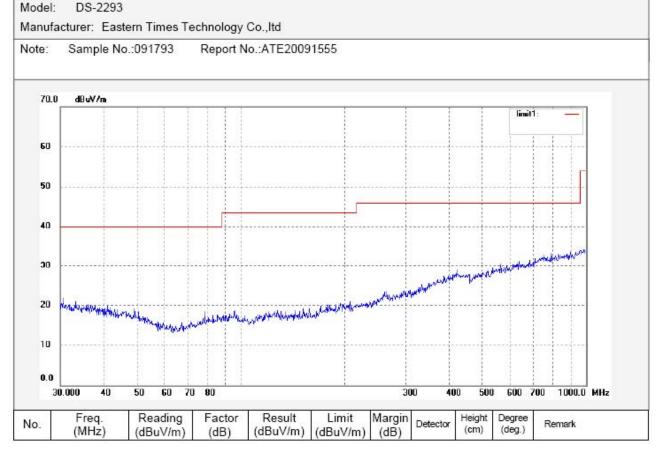
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2473MHz Model: DS-2293





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

Date: 2009/09/02

Time: 22:40:43

Power Source: DC 1.5V

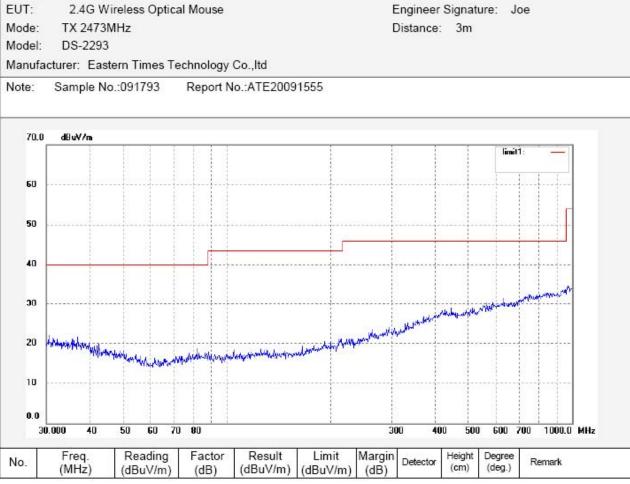
Job No.: RTTE #2955

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse





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 #2864

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2473MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co.,ltd

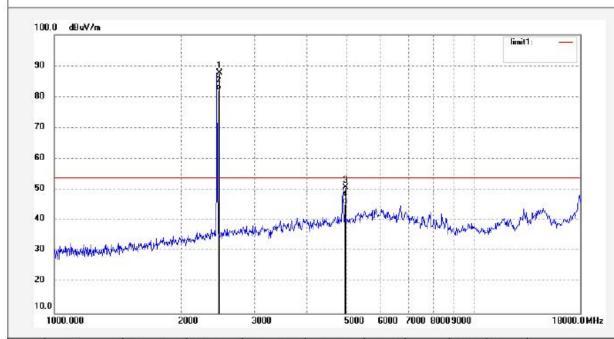
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Horizontal Power Source: DC 1.5V

Date: 2009/09/01 Time: 20:06:28

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2473.016	95.13	-7.36	87.77	114.00	-26.23	peak			
2	2473.016	89.57	-7.36	82.21	94.00	-11.79	AVG			
3	4946.029	50.37	0.46	50.83	74.00	-23.17	peak			
4	4946.029	44.74	0.46	45.20	54.00	-8.80	AVG	3	22	3



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 #2863

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2473MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

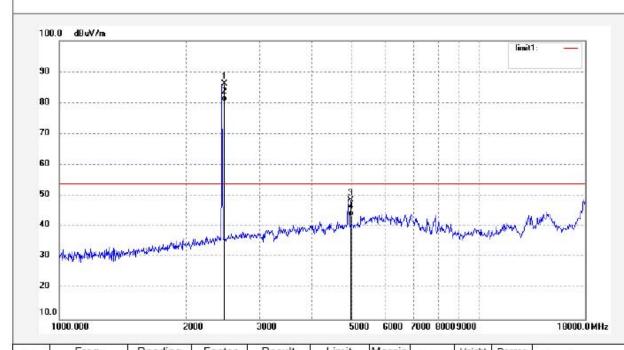
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Vertical Power Source: DC 1.5V

Date: 2009/09/01 Time: 20:03:16

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Remark	
1	2473.016	93.50	-7.36	86.14	114.00	-27.86	peak				
2	2473.016	87.94	-7.36	80.58	94.00	-13.42	AVG				
3	4946.029	48.18	0.46	48.64	74.00	-25.36	peak				
4	4946.029	42.64	0.46	43.10	54.00	-10.90	AVG		22	3	



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

Horizontal

Job No.: RTTE #2888

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2473MHz Model: DS-2293

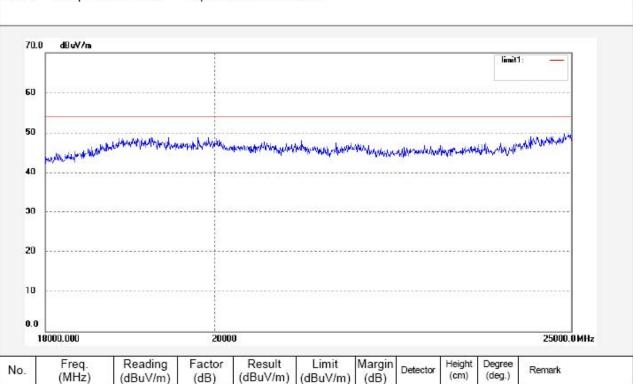
Manufacturer: Eastern Times Technology Co.,ltd

Note: Sample No.:091793 Report No.:ATE20091555

Date: 2009/09/01
Time: 21:44:19
Engineer Signature: Joe
Distance: 3m

Power Source: DC 1.5V

Polarization:





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 1.5V

Job No.: RTTE #2887

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Date: 2009/09/01 Temp.(C)/Hum.(%) 25 C / 50 % Time: 21:41:16 EUT: 2.4G Wireless Optical Mouse Engineer Signature: Joe Mode: TX 2473MHz Distance: 3m Model: DS-2293 Manufacturer: Eastern Times Technology Co., ltd Sample No.:091793 Report No.:ATE20091555 Note: 70.0 dBuV/m limit1 60 50 40 30 20 10 18000.000 20000 25000.0 MHz Freq. Reading Factor Result Limit Margin Height Degree Detector No. Remark (deg.) (MHz) (dBuV/m) (dBuV/m) (dB) (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

Job No.: RTTE #2868

Standard: FCC Part 15 PEAK 2.4G

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

EUT: 2.4G Wireless Optical Mouse

Mode: TX 2403MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

Note: Sample No.:091793 Report No.:ATE20091555

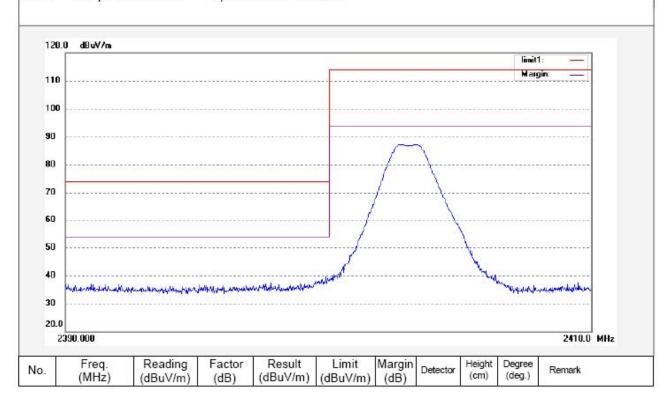
Date: 2009/09/01
Time: 20:22:34

Engineer Signature: Joe

Polarization: Horizontal

Power Source: DC 1.5V

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 #2867 Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: 2.4G Wireless Optical Mouse

Mode: TX 2403MHz Model: DS-2293

Manufacturer: Eastern Times Technology Co., ltd

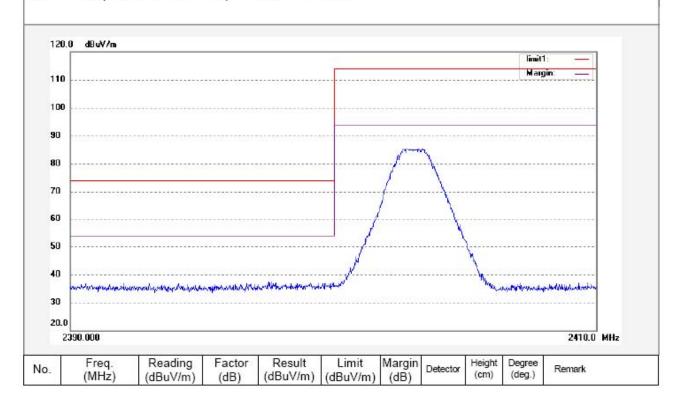
Note: Sample No.:091793 Report No.:ATE20091555

Polarization: Vertical Power Source: DC 1.5V

Date: 2009/09/01 Time: 20:19:31

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

Polarization: Horizontal

Power Source: DC 1.5V

Date: 2009/09/01

Time: 20:12:31

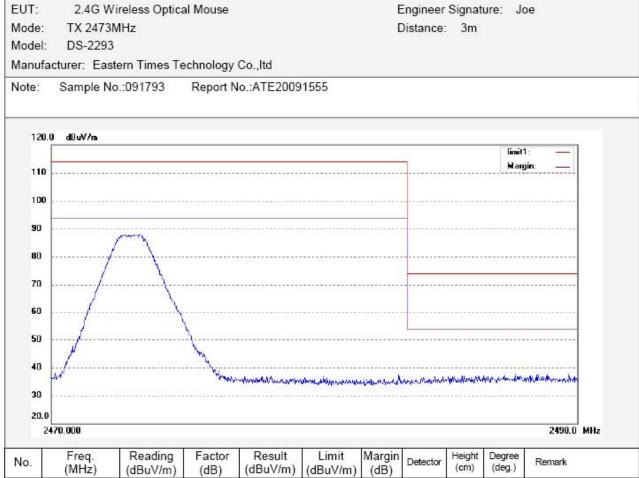
Job No.: RTTE #2865

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse





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

Date: 2009/09/01

Time: 20:15:28

Power Source: DC 1.5V

Job No.: RTTE #2866

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

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

EUT: 2.4G Wireless Optical Mouse Engineer Signature: Joe Mode: TX 2473MHz Distance: 3m Model: DS-2293 Manufacturer: Eastern Times Technology Co., Itd Note: Sample No.:091793 Report No.:ATE20091555 120.0 dBuV/m limit1 Margin: 110 100 90 80 70 60 50 40 30 20.0 2470.000 2490.0 MHz

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