



Report No.: File reference No.:	FCC1905092 2019-05-27
Applicant:	Shenzhen Star Sources Electronic Technology Co., Ltd.
Product:	Wireless Mouse
Model No.:	BRM2030B
Brand Name:	brookstone
Test Standards:	FCC Part 15.249
Test result:	It is herewith confirmed and found to comply with the requirements set up by ANSI C63.4&FCC Part 15 Subpart C, Paragraph 15.249 regulations for the evaluation of electromagnetic compatibility
Approved By	electroniagnetic comparisinty
Jack Chung	
Jack Chung	
Manager	

Dated:

May 27, 2019

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



# **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

# CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

# FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

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#### 1.0 General Details

### 1.1 Test Lab Details

Name :SHENZHEN TIMEWAY TESTING LABORATORIES.Address:Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le<br/>Village, Nanshan District, Shenzhen, ChinaTelephone:(755) 83448688Fax:(755) 83442996Site on File with the Federal Communications Commission – United SatesRegistration Number: 744189For 3m Anechoic Chamber

# 1.2 Applicant Details

Applicant:	Shenzhen Star Sources Electronic Technology Co., Ltd.				
Address:	Room1102, Block 1st, Yi Luan Building, Xixiang Road 230, BaoAn District, Shenzhen,				
	China				
Telephone:	0755 -86397260				
Fax:	0755-26609516				

# 1.3 Description of EUT

1	
Product:	Wireless Mouse
Manufacturer:	Shenzhen Star Sources Electronic Technology Co., Ltd.
Address:	Room1102, Block 1st, Yi Luan Building, Xixiang Road 230, BaoAn District,
	Shenzhen, China
Brand Name:	brookstone
Model Number:	BRM2030B
Additional Model Name	N/A
Input Voltage:	DC3.7V, Li-ion battery
Modulation Type:	GFSK
Operation Frequency	2402-2480MHz
Channel Seperation	2MHz
Antenna Designation	PCB antenna with gain 0dBi Max
Hardware Version:	V1.1
Software Version:	V2.2

### 1.4 Submitted Sample

2 Sample

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- 1.5 Test Duration 209-05-20 to 2019-05-27
- 1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB Radiated Emissions below 1GHz Uncertainty =4.7dB Radiated Emissions above 1GHz Uncertainty =6.0dB Conducted Power Uncertainty =6.0dB Occupied Channel Bandwidth Uncertainty =5% Conducted Emissions Uncertainty =3.6dB

1.7 Test Engineer

Terry Tang

The sample tested by

Print Name: Terry Tang

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2.0 Test Equipment							
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date		
ESPI Test Receiver	R&S	ESPI 3	100379	2018-06-22	2019-06-21		
Ultra Broadband ANT	R&S	HL562	100157	2018-06-18	2019-06-17		
Loop Antenna	EMCO	6507	00078608	2018-06-25	2019-06-24		
Spectrum	R&S	FSIQ26	100292	2018-06-22	2019-06-21		
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2018-06-25	2019-06-24		
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-08-24	2019-08-23		
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2019-07-03		
9*6*6 Anechoic			N/A	2018-02-07	2021-02-06		
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2018-06-22	2019-06-21		
Spectrum	RS	FSP	1164.4391.38	2019-01-18	2020-01-17		
RF Cable	Zhengdi	ZT26-NJ-NJ-8 M/FA		2018-05-23	2020-05-22		
RF Cable	Zhengdi	7m		2019-03-08	2020-03-07		
RF Switch	EM	EMSW18	060391	2018-06-22	2019-06-21		
Pre-Amplifier	Schwarebeck	BBV9743	#218	2018-06-22	2019-06-21		
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2018-08-05	2019-08-04		
DC Power Supply	Jingtong	JT12098	WYK-305	2018-08-20	2019-08-19		
LISN	SCHAFFNER	NNB42	00012	2019-01-08	2020-01-07		

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# **3.0** Technical Details

# 3.1 Summary of test results

The EUT has been tested according to the following specifications:					
Standard	Test Type	Result	Notes		
FCC Part 15, Paragraph 15.207	Conducted Emission Test	PASS	Complies		
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	PASS	Complies		
FCC Part 15, Paragraph 15.209	Radiated Emission Test	PASS	Complies		
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	PASS	Complies		

### 3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.249 , ANSI C63.4 :2014 and ANSI C63.10 :2013

### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

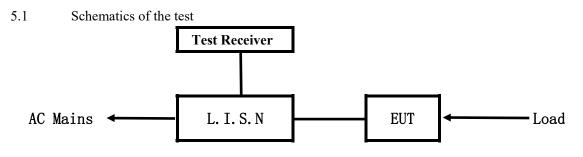
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# 5. Power Line Conducted Emission Test

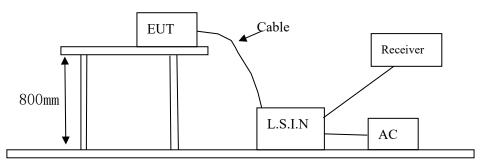


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.4-2014.

Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2014. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below. One channels are provided to the EUT

Device	Manufacturer	Model	FCC ID
Wireless Mouse	Shenzhen Star Sources Electronic	BRM2030B	ZJEST-892
whereas wouse	Technology Co., Ltd.	DRW2050D	ZJE31-072

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Pass

B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	h.TV	S012BES0500200	Input:100-240V~, 50/60Hz,0.5A;
			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2014

A Setup the EUT and simulators as shown on follow

B Enable AF signal and confirm EUT active to normal condition

#### 5.5 Power line conducted Emission Limit according to Paragraph 15.107 and 15.207

	Class A Lin	nits (dB µ V)	Class B Limits (dB µ V)				
	Frequency(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level		
	$0.15~\sim~0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*		
	$0.50~\sim~5.00$	73.0	60.0	56.0	46.0		
	$5.00~\sim~30.00$	73.0	60.0	60.0	50.0		

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

### 5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBu∨	dB	Detector	Comment
1		0.2700	10.20	9.75	19.95	61.12	-41.17	QP	
2		0.2700	-17.70	9.75	-7.95	51.12	-59.07	AVG	
3	*	0.4931	20.50	9.77	30.27	56.12	-25.85	QP	
4		0.4931	-5.40	9.77	4.37	46.12	-41.75	AVG	
5		0.7652	1.30	9.78	11.08	56.00	-44.92	QP	
6		0.7652	-27.10	9.78	-17.32	46.00	-63.32	AVG	
7		1.1828	5.50	9.79	15.29	56.00	-40.71	QP	
8		1.1828	-16.30	9.79	-6.51	46.00	-52.51	AVG	

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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBu∨	dB	Detector	Comment
1 *	0.2950	25.50	9.76	35.26	60.38	-25.12	QP	
2	0.2950	-14.10	9.76	-4.34	50.38	-54.72	AVG	
3	0.4855	18.30	9.77	28.07	56.24	-28.17	QP	
4	0.4855	-4.90	9.77	4.87	46.24	-41.37	AVG	
5	1.3424	4.20	9.79	13.99	56.00	-42.01	QP	
6	1.3424	-19.90	9.79	-10.11	46.00	-56.11	AVG	

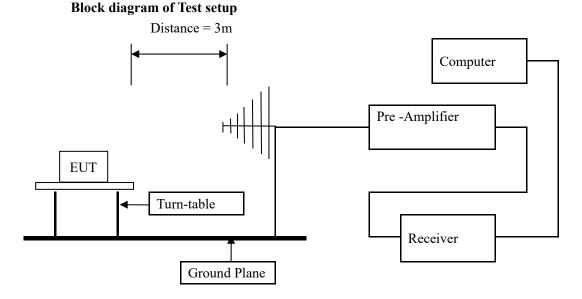
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# 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz (Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.



- 6.2 Configuration of The EUT Same as section 5.3 of this report
- 6.3 EUT Operating Condition Same as section 5.4 of this report.

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# 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

# A FCC Part 15 Subpart C Paragraph 15.249(a) Limit

Fundamental Frequency	Field Stre	Strength of Fundamental (3m)			Field Strength of Harmonics (3m)			
(MHz)	mV/m	dBuV/m		uV/m	dBuV/m			
2400-2483.5	50	94 (Average) 114 (Peak)		500	54 (Average)	74 (Peak)		

Note: 1. RF Field Strength (dBuV) = 20 log RF Voltage (uV)

2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

# B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note: 1. RF Voltage  $(dBuV) = 20 \log RF$  Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

4. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

5. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.

6. Battery full charged were used during tests.

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# 6.5 Test result

# A Fundamental & Harmonics Radiated Emission Data

Product:	Wireless Mouse	Test Mode:	Keep transmitting-Low Channel
Test Item:	Fundamental Radiated Emission	Temperature:	25°C
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV	Horiz /	Limits PK/AV	Margin
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)
2402	73.71(PK)	Н	114/94	-20.29
2402	67.83(PK)	V	114/94	-26.17
4804	48.75(PK)	Н	74/54	-5.25
4804	54.82(PK)/35.16(AV)	V	74/54	-19.18/-18.84
7206		H/V	74/54	
9608		H/V	74/54	
12010		H/V	74/54	
14412		H/V	74/54	
16814		H/V	74/54	
19216		H/V	74/54	
21618		H/V	74/54	
24020		H/V	74/54	

Note: (1) PK= Peak, AV= Average

(2) Emission Level = Reading Level + Antenna Factor + Cable Loss.

(3)Margin=Emission-Limits

(4)According to section 15.35(b), the peak limit is 20dB higher than the average limit

(5) For test purpose, keep EUT continuous transmitting

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Product:	Wireless Mouse	Test Mode:	Keep transmitting-Middle Channel
Test Item:	Fundamental Radiated Emission	Temperature:	25°C
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV	Horiz /	Limits PK/AV	Margin
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)
2440	71.09(PK)	Н	114/94	-22.91
2440	67.76(PK)	V	114/94	-26.24
4880	47.92(PK)	Н	74/54	-6.08
4880	54.84(PK)/35.22(AV)	V	74/54	-19.16/-18.78
7320		H/V	74/54	
9760		H/V	74/54	
12200		H/V	74/54	
14640		H/V	74/54	
17080		H/V	74/54	
19520		H/V	74/54	
21960		H/V	74/54	
24400		H/V	74/54	

Note: (1) PK= Peak, AV= Average

(2) Emission Level = Reading Level + Antenna Factor + Cable Loss.

(3)Margin=Emission-Limits

(4)According to section 15.35(b), the peak limit is 20dB higher than the average limit

(5) For test purpose, keep EUT continuous transmitting

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Product:	Wireless Mouse	Test Mode:	Keep transmitting-High Channel
Test Item:	Fundamental Radiated Emission	Temperature:	25°C
	Data		
Test Voltage:	DC3.7V	Humidity:	56%
Test Result:	Pass		

Frequency	Emission PK/AV	Horiz /	Limits PK/AV	Margin
(MHz)	(dBuV/m)	Vert	(dBuV/m)	(dB)
2480	75.26(PK)	Н	114/94	-18.74
2480	68.32(PK)	V	114/94	-25.68
4960	47.81(PK)	Н	74/54	-6.19
4960	54.11(PK)/34.89(AV)	V	74/54	-19.89/-19.11
7440		H/V	74/54	
9920		H/V	74/54	
12400		H/V	74/54	
14880		H/V	74/54	
17360		H/V	74/54	
19840		H/V	74/54	
22320		H/V	74/54	
24800		H/V	74/54	

Note: (1) PK= Peak, AV= Average

(2) Emission Level = Reading Level + Antenna Factor + Cable Loss.

(3)Margin=Emission-Limits

(4)According to section 15.35(b), the peak limit is 20dB higher than the average limit

(5) For test purpose, keep EUT continuous transmitting

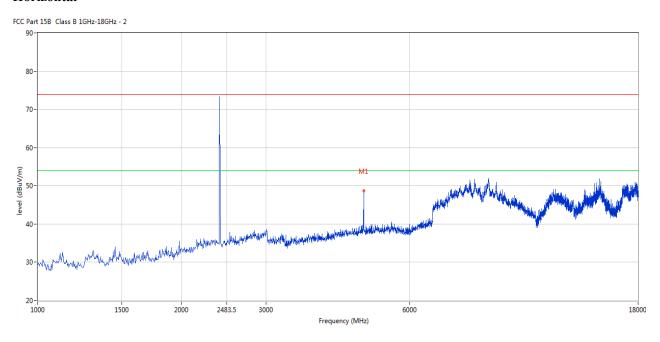
The report refers only to the sample tested and does not apply to the bulk.

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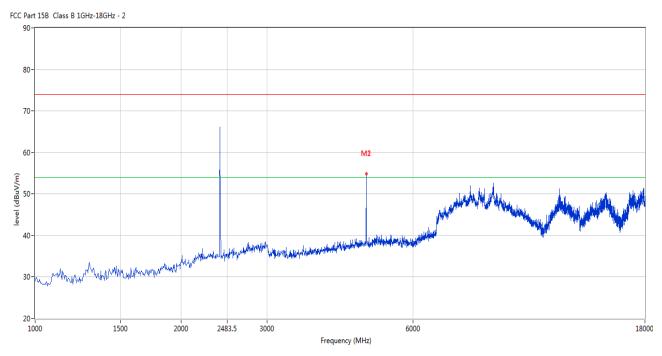
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Please refer to the following test plots for details: Low Channel **Horizontal** 



### Vertical



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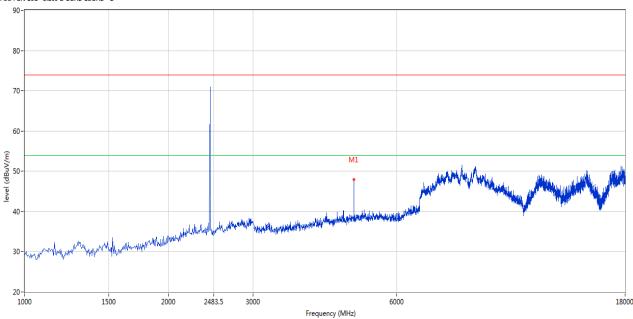
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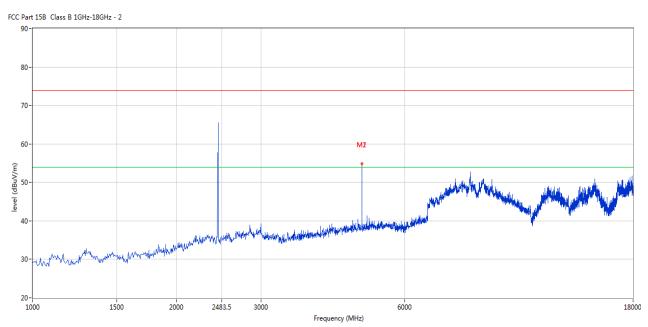
### Please refer to the following test plots for details: Middle Channel

#### Horizontal

FCC Part 15B Class B 1GHz-18GHz - 2



### Vertical



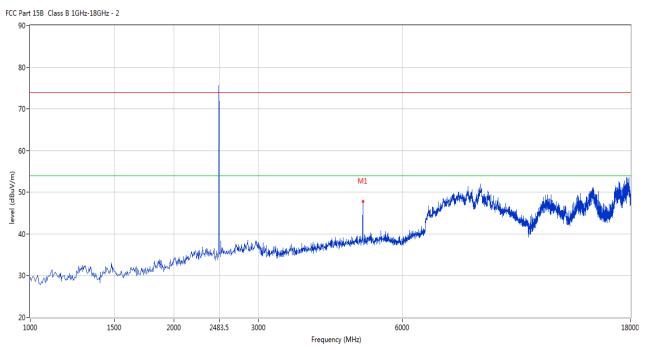
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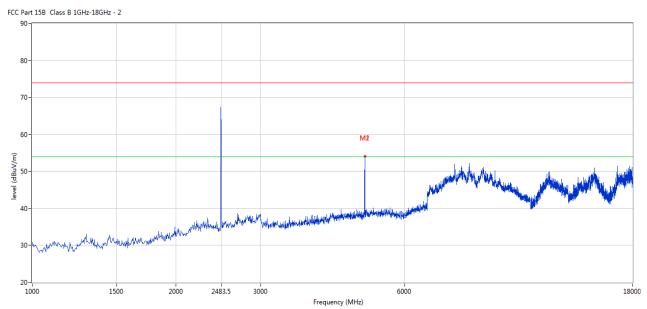


# Please refer to the following test plots for details: High Channel

### Horizontal



#### Vertical



For emission above 18GHz, It is only the floor noise. No necessary to take down.

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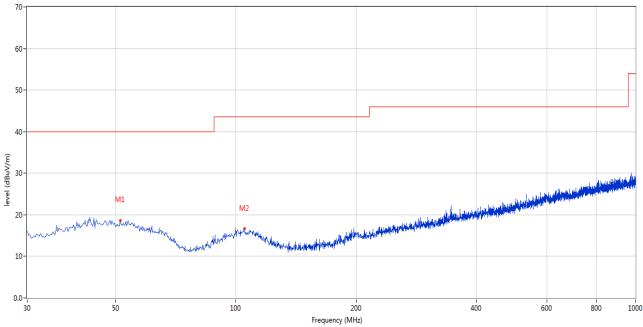
# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

# Results: Pass

Please refer to following diagram for individual

FCC\_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency	Results	Factor (dB)	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)		(dBuV/m)	(dB)		(o)	(cm)		
1	51.335	18.67	-11.41	40.0	-21.33	Peak	360.00	200	н	Pass
2	104.914	16.67	-13.23	43.5	-26.83	Peak	360.00	200	Н	Pass

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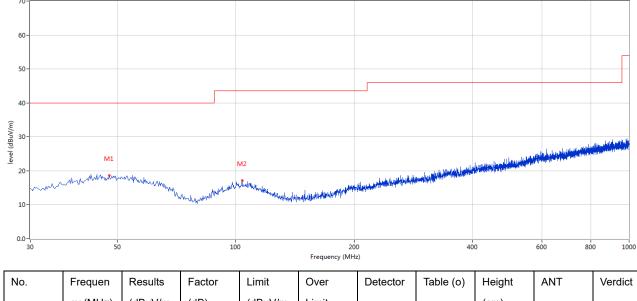
# Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### **Results:** Pass

Please refer to following diagram for individual

FCC\_FCC Part 15B Class B 30MHz-1GHz 70-



NU.	Fiequeii	Results	Facior	LIIIII	Over	Delecioi		Tieigin	ANT	Veruici
	cy (MHz)	(dBuV/m	(dB)	(dBuV/m	Limit			(cm)		
		)		)	(dB)					
1	47.698	18.56	-11.34	40.0	-21.44	Peak	155.00	200	V	Pass
2	103.702	17.12	-13.35	43.5	-26.38	Peak	360.00	200	V	Pass

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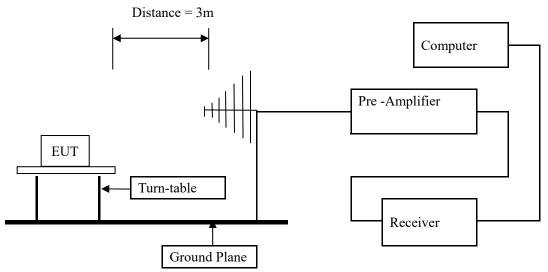


# 7. Band Edge

# 7.1 Test Method and test Procedure:

- The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz,VBW=3MHz and Peak detector used
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

# 7.2 Radiated Test Setup



For the actual test configuration, please refer to the related items - Photos of Testing

# 7.3 Configuration of The EUT

Same as section 5.3 of this report

# 7.4 EUT Operating Condition

Same as section 5.4 of this report.

# 7.5 Band Edge Limit

Emissions 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.

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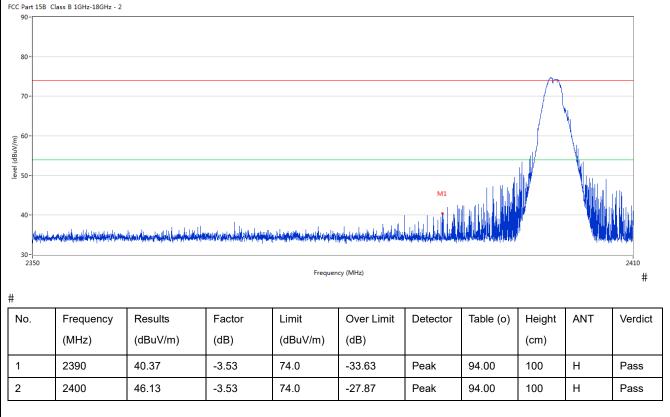
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#### 7.6 Test Result

Product:	Wire	eless Mouse	Polarity	Horizontal
Mode	Keepin	g Transmitting	Test Voltage	DC3.7V
Temperature	2	4 deg. C,	Humidity	56% RH
Test Result:		Pass		
2400MHz	PK (dBµV/m)	46.13	Limit	74 dB $\mu$ V/m
2400MHz	AV (dBµV/m)		Limit	54 dBµV/m
2390 MHz	PK (dBµV/m)	40.37	Limit	74 dBµV/m
2390 MHz	AV (dBµV/m)		Limit	54 dBµV/m



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Pro	oduct:		Wireles	s Mouse		Detector		Ve	ertical		
	Iode	К		ransmitting		Test Voltag	re	DC3.7V			
	perature	24 deg. C,				Humidity			% RH		
	Result:			ass							
240	0MHz	PK (dBµV	//m)	39.72	2	Limit		74 d	BµV/m		
240	0MHz	AV (dBµV	//m)	)		Limit		54 d	BµV/m		
239	0 MHz	PK (dBµV	//m)	35.65	;	Limit		74 dBµV/m			
239	0 MHz	AV (dBµV	//m)			Limit		$54 \text{ dB}\mu\text{V/m}$			
70- (E) 60- (B) 709 (B) 709 (B) 700 (B) 700							M1				
30- 2350	alimet be for the barth, and in the first out on the	han an a	lipperternike diskered		iller fillen filligi hushy bere, belika	ynder fan nellinge de de fan hjelende blee					
2350					Frequency (MHz)					241	
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)			
1	2390	35.65	-3.53	74.0	-38.35	Peak	18.00	100	V	Pass	

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Product: Wireles				Wireless Mouse			Horizontal				
Ν	Node	Ke	eping Tran	smitting	Т	est Voltage	nge DC3.7V				
Temperature 24 de				С,		Humidity		56%	6 RH		
Test	Result:		Pass				-				
248	3.5MHz	PK (dBµV/r	m)	52.89		Limit		$74 \ dB\mu V/m$			
248	3.5MHz	AV (dBµV/1	m)			Limit		54 dE	βµV/m		
FCC Part 158 90- 80- 70- ((E)/)78(P) 90- 70- ((E)/)78(P) 90- 70- ((E)/)78(P) 90- 90- 70- ((E)/)78(P) 90- 90- 70-	Class B 1GHz-18GHz - 2										
<u>š</u> 50-						l III i i i i i					
30- 2470				2483.5 Fr	requency (MHz)						
40 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -				Fr						2500	
40-	Frequency (MHz)		Factor (dB)		equency (MHz) Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT		
40 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -		(dBuV/m) (		Fr Limit	Over Limit	Detector Peak	Table (o) 118.00	-	ANT		

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	oduct:		ireless I			Detector			Vertical		
Ν	Mode	Keep	ing Trai	nsmitting	Те	st Voltage		DC3.7V			
Tem	perature		24 deg.	. C,	H	Iumidity		56% RH			
Test	t Result:										
248	3.5MHz	PK (dBµV/m)		48.23 Limit		Limit		74 $dB\mu V/m$			
248	3.5MHz	AV (dBµV/m)	)		Limit			$54 \text{ dB}\mu\text{V/m}$			
	Class B 1GHz-18GHz - 2	2									
90-											
80-											
70-			m								
			1 3	6							
60-				X							
60 - 50 -				Mul.							
50-											
		a la la MMC		Null I.	al a						
	h										
	he we have the					ad the day of the			einel um haule.	ann an that had and	
40- Mathi	hand rear a deep held being a stand being			2483.5		an a	Indialitic and the second s	n juurdis, dal fi demokyol q.	çinal nan dianta.	250	
40- Mathi	he we have been a been been been been been been b				requency (MHz)	han the street	ek de feliker kan bergeberge	ni, and a district of a	çinal-mir Alaniq.	250	
40- 30- 2470	Frequency	Results	Factor		requency (MHz)	Detector	Table (o)	Height	ANT	1	
40- 30- 2470	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Fr		Detector	Table (o)	Height (cm)	ANT	250 Verdict	

Note: The PK emission level less than the AV limit. No necessary to record the AV emission level.

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### 8.0 Antenna Requirement

#### **Applicable Standard**

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna. The antenna gain is 0dBi Max. It fulfills the requirement of this section. Test Result: Pass

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Product:	Wireless Mouse					est Mode:		Keep transmitting			
Mode	Keeping Transmitting					Test Voltage		DC3.7V			
Temperature		24 deg. C,	-		Humidity			56% RH			
Test Result:		Pass				Detector		РК			
0dB Bandwidth		1.85MHz									
$\widehat{\mathbf{A}}$	Delta 1	L [T1]		RI	ЗW	30 k	Hz	RF Att	10 dB		
🛛 Ref Lvl		-0.	43 dB	VI	ЗW	100 k	Hz				
0 dBm	-	L.853707	41 MHz	SV	ΥT	14 m	ເຮ	Unit	dBı	n	
						<b>v</b> <sub>1</sub>	[T1]	-41	.91 dBr	A	
								2.40109	319 GH2	2	
-10						<b>▲</b> 1	[T1]	- (	.43 dB		
						_		1.85370		2	
-20				2		▼2	[T1]	-22	.16 dBr	n I	
								2.40202	505 GH2	3	
-30		$_{1}$ $\mathcal{M}$	N		h.	Mary -				1.M2	
-40 	dBm	<del>.</del>									
	۰ <i>۰</i> ۰۰ (	- ·					m				
-50	Jul V							hy and			
-60	b								John Martin	1	
-70										_	
-80											
-90											
-100											
Center 2.40	2 GHz		500	kHz/				Spa	ın 5 MHz		

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Product:	Wireless Mous	e	Т	est Mode:		Keep transmitting DC3.7V			
Mode	Keeping Transmit	ting	Te	est Voltage					
Temperature	24 deg. C,		I	Humidity		56%	RH		
Test Result:	Pass			Detector		PI	K		
20dB Bandwidth	1.89MHz					 RF Att 10 d			
<b>K</b>	Delta 1 [T1]		RBW	30 k		RF Att	10 dB		
Ref Lvl		01 dB	VBW	100 k					
0 dBm	1.893787	58 MHz	SWT	14 m	is (	Jnit	dBm	l	
				<b>v</b> 1	[T1]	-42	.39 dBm	A	
						2.43909	319 GHz	A	
-10				<b>1</b>	[T1]	C	.01 dB		
				_		1.89378			
-20		2		♥2	[T1]	-22	.90 dBm		
		$\wedge$	щ.			2.44002	505 GHz		
-30		N	- WA						
1MAX	Λ	V	w.	1				1M7	
-40				MM					
—D1 -42.9 dB	m du Ol			\^	L				
-50					M.				
- 50					Ŋ				
. M.a.	MA					the pure	L,		
-60 No Why	<sup>y/</sup>					ter	hele .		
n m							min		
-70									
- 80									
-90									
-100									
Center 2.44 (	GHz	500 ki	Hz/			Spa	n 5 MHz	-	
ate: 21.MAY	1.2019 17:19:18								

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Product:	Т	est Mod	e:	Keep transmitting									
Mode		Keepin	ıg Transmi	tting	Te	est Volta	ge		DC3.7V				
Temperature		2	4 deg. C,	C, Humidity 56% RH Detector PK				RH					
Test Result:			Pass					K					
20dB Bandwidth		1	.93MHz						-	-			
	1	Delta 1	[T1]		RBW	30	kHz	R	F Att	10 dE	5		
Ref Lvl				11 dB	VBW	100							
0 dBm		1	.933867	74 MHz	SWT	14	ms	U	nit	dE	sm		
0						•	1 []	1]	-42	.88 dB	m		
									2.47904		Z		
-10						<b></b>	1 [1	1]	С	.11 dB			
									1.93386	774 MH	z		
-20					2	$\nabla$	2 [1	1]	-23	.18 dB			
					u.				2.48003	507 GH	z		
-30					- Jun								
1MAX			0	$\mathcal{N}^{*}$	"hu	4					1MA		
						Mm							
-40 —D1 -43.1	8 dBm-		$\Lambda$				M						
		Mon	)0 •				m						
-50		, N						M			_		
	.0	للمل						٦ ا					
-60	h							1	My um		_		
man	$\sim$									Mr.	n		
-70													
- / 0													
- 80													
-90							_				_		
-100													
Center 2.	48 GHz			500	kHz/				Spa	in 5 MH	z		
Date: 21.	MAY.20	)19 17	:23:37										

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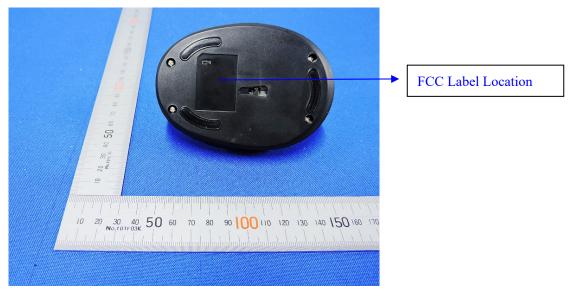
Page 31 of 41

# 10.0 FCC ID Label

# FCC ID: ZJEST-892

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

# Mark Location:



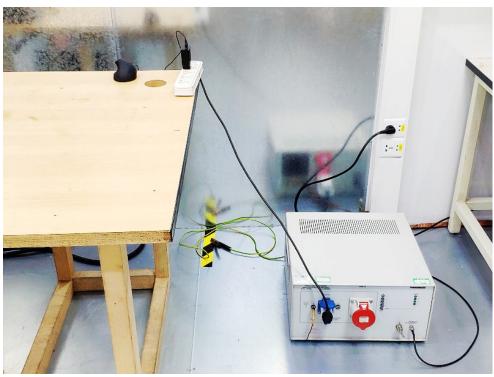
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#### 11.0 Photo of testing

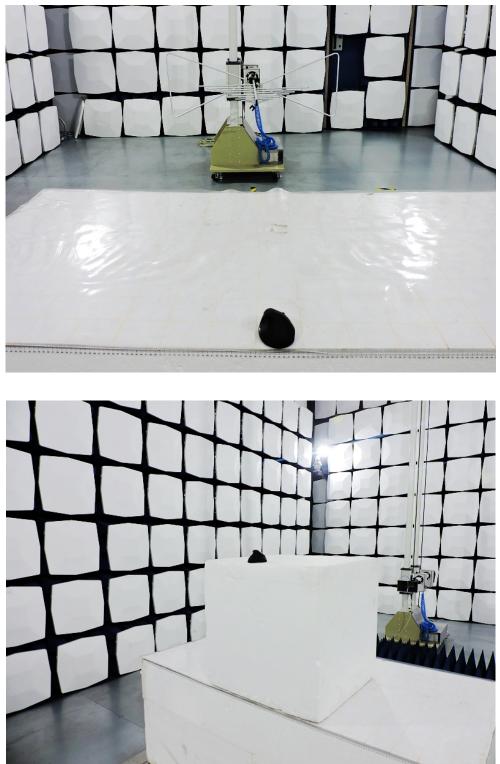
11.1 Conducted test View



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#### 11.2 Radiated emission test view



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#### 11.3 Photographs – EUT

Outside View-Mouse





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Outside View-Mouse





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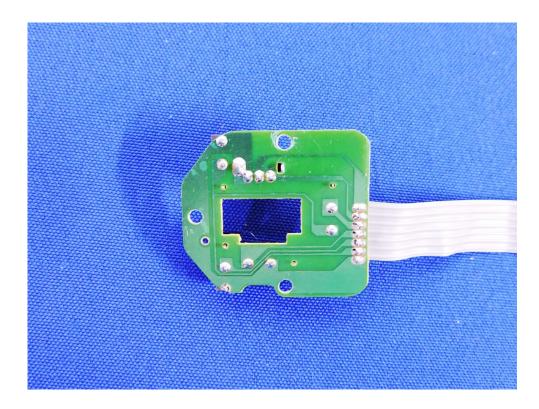


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Inside view-Mouse



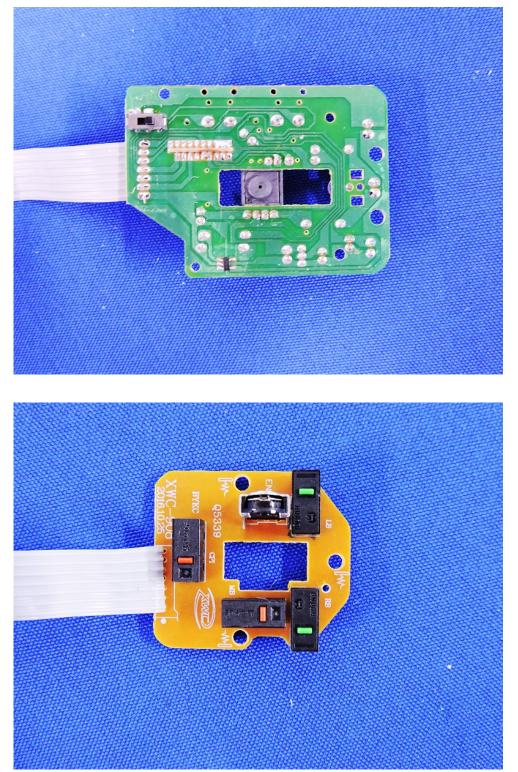


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Inside view-Mouse

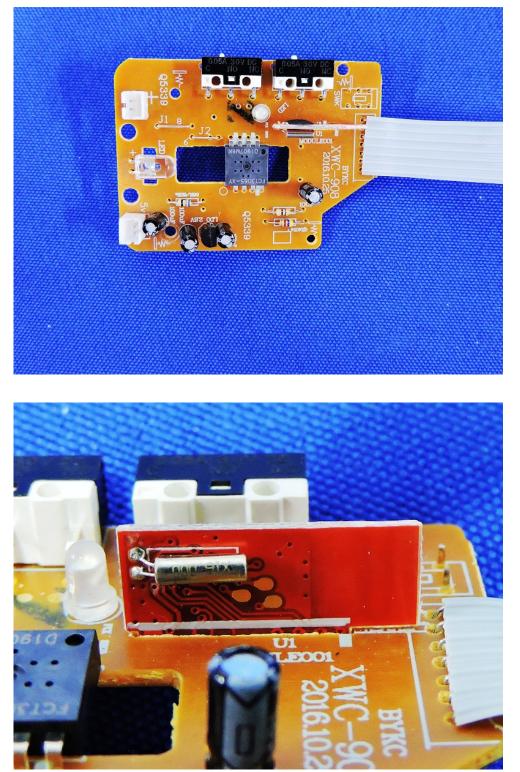


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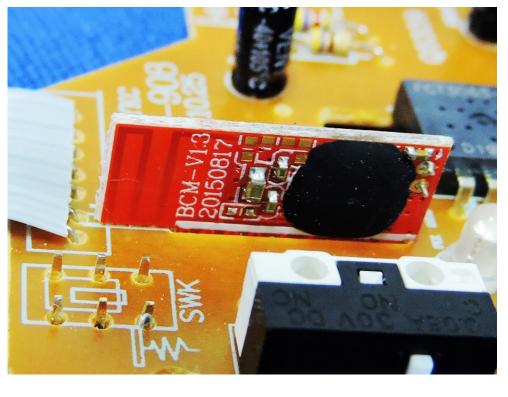
Inside view-Mouse



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Inside view-Mouse

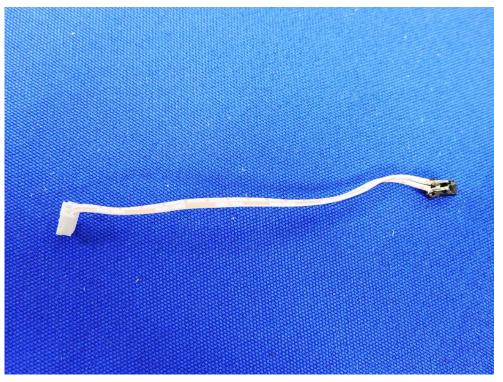




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Inside view-Mouse



--End of the report--

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