FCC Test Report

Report No.: AGC03158150801FE03

FCC ID : ZJEOM4750W

APPLICATION PURPOSE: Original Equipment

PRODUCT DESIGNATION: 2.4GHz Wireless Mouse

BRAND NAME : N/A

MODEL NAME : OM4750W, OM6750W, ST-266, ST-267, ST-289, ST-299

CLIENT: Shenzhen Star Sources Electronic Technology Co., Limited

DATE OF ISSUE : Aug.22, 2015

STANDARD(S)

TEST PROCEDURE(S)

: FCC Part 15 Rules

REPORT VERSION V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Page 2 of 35

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	1	Aug.22, 2015	Valid	Original Report

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	4
2. GENERAL INFORMATION	5
2.1. PRODUCT DESCRIPTION	5
2.2. TABLE OF CARRIER FREQUENCY	6
3. MEASUREMENT UNCERTAINTY	7
4. DESCRIPTION OF TEST MODES	7
5. SYSTEM TEST CONFIGURATION	8
5.1. CONFIGURATION OF EUT SYSTEM	8
5.2. EQUIPMENT USED IN EUT SYSTEM	8
5.3. SUMMARY OF TEST RESULTS	8
6. TEST FACILITY	9
7. RADIATED EMISSION	10
7.1TEST LIMIT	10
7.2. MEASUREMENT PROCEDURE	11
7.3. TEST SETUP	13
7.4. TEST RESULT	15
8. BAND EDGE EMISSION	20
8.1. MEASUREMENT PROCEDURE	20
8.2 TEST SETUP	20
8.3 RADIATED TEST RESULT	21
9. 20DB BANDWIDTH	25
9.1. MEASUREMENT PROCEDURE	25
9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	25
9.3. MEASUREMENT RESULTS	25
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	28
APPENDIX B. PHOTOGRAPHS OF FUT	29

Page 4 of 35

1. VERIFICATION OF CONFORMITY

Applicant	Shenzhen Star Sources Electronic Technology Co., Limited		
Address	RM2001 MeiLan Business Center, intersection between the road of XiXiang and Qianjin, BaoAn District, Shenzhen, China Postcode: 518100		
Manufacturer	Shenzhen Star Sources Electronic Technology Co., Limited		
Address	RM2001 MeiLan Business Center, intersection between the road of XiXiang and Qianjin, BaoAn District, Shenzhen, China Postcode: 518100		
Product Designation	2.4GHz Wireless Mouse		
Brand Name	N/A		
Test Model	OM4750W		
Series Model	OM6750W, ST-266, ST-267, ST-289, ST-299		
Difference description	All the same except for the model name and appearance Color.		
Date of test	Aug.18, 2015 to Aug.21, 2015		
Deviation	None		
Condition of Test Sample	Normal		
Report Template	AGCRT-US-BR/RF		

We hereby certify that:

The above equipment was tested by Dongguan Precise Testing Service Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2009) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 15.249.

Reviewed by

Reviewed by

Rock Huang(Huang Dinglue)

Aug.22, 2015

Approved by

Solger Zhang(Zhang Hongyi)
Aug.22, 2015

Aug.22, 2015

Aug.22, 2015

Page 5 of 35

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

· · · · · · · · · · · · · · · · · · ·			
Operation Frequency	2.409 GHz to 2.476GHz		
Maximum field strength	80.9dBuV/m@3m(AV)		
Modulation	GFSK		
Number of channels	8		
Antenna Gain	0dBi		
Antenna Designation	PCB Antenna (Met 15.203 Antenna requirement)		
Hardware Version	N/A		
Software Version	N/A		
Power Supply	DC3V by battery		

Page 6 of 35

2.2. TABLE OF CARRIER FREQUENCY

Channel	Frequency (GHz)	Channel	Frequency (GHz)
01	2.409	05	2.445
02	2.417	06	2.455
03	2.426	07	2.460
04	2.440	08	2.476

Page 7 of 35

3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2 providing a level of confidence of approximately 95 %

No.	Item	Uncertainty
1	Conducted Emission Test	±3.18dB
2	All emissions,radiated	±3.91dB
3	Temperature	±0.5°C
4	Humidity	±2%

4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Low channel TX in GFSK modulation
2	Middle channel TX in GFSK modulation
3	High channel TX in GFSK modulation
4	TX OFF

Note:

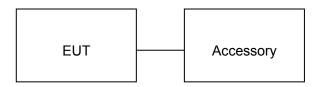
- 1. All the test modes can be supply by battery, only the result of the worst case was recorded in the report, if no other cases.
- 2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

Page 8 of 35

5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure :



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	2.4GHz Wireless Mouse	N/A	OM4750W	EUT

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249	Radiated Emission	Compliant
§15.249	Band Edges	Compliant
§15.215	20dB bandwidth	Compliant

Page 9 of 35

6. TEST FACILITY

Site Dongguan Precise Testing Service Co., Ltd.	
Location Building D, Baoding Technology Park, Guangming Road2, Dongcheng Distribution Dongguan, Guangdong, China.	
FCC Registration No.	371540
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2009.

ALL TEST EQUIPMENT LIST

Radiated Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 4, 2015	July 3, 2016
Trilog Broadband Antenna (25M-1GHz)	SCHWARZBECK	VULB9160	9160-3355	July 4, 2015	July 3, 2016
Signal Amplifier	SCHWARZBECK	BBV 9475	9745-0013	July 4, 2015	July 3, 2016
RF Cable	SCHWARZBECK	AK9515E	96221	July 4, 2015	July 3, 2016
3m Anechoic Chamber	CHENGYU	966	PTS-001	June 6, 2015	June 5, 2016
MULTI-DEVICE Positioning Controller	Max-Full	MF-7802	MF780208339	N/A	N/A
Active loop antenna (9K-30MHz)	Schwarzbeck	FMZB1519	1519-038	June 6, 2015	June 5, 2016
Spectrum analyzer	Agilent	E4407B	MY46185649	June 6, 2015	June 5, 2016
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA9120D	9120D-1246	June 6, 2015	June 5, 2016
Horn Ant (18G-40GHz)	Schwarzbeck	BBHA 9170	9170-181	June 6, 2015	June 5, 2016

Page 10 of 35

7. RADIATED EMISSION

7.1TEST LIMIT

Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental	Field Strength of Harmonics	
	(millivolts/meter)	(microvolts/meter)	
900-928MHz	50	500	
2400-2483.5MHz	50	500	
5725-5875MHz	50	500	
24.0-24.25GHz	250	2500	

Standard FCC 15.209

Frequency	Distance	Field	Strengths Limit			
(MHz)	Meters	V/m	dB(μV)/m			
0.009 ~ 0.490	300	2400/F(kHz)				
0.490 ~ 1.705	30	24000/F(kHz)				
1.705 ~ 30	30	30				
30 ~ 88	3	100	40.0			
88 ~ 216	3	150	43.5			
216 ~ 960	3	200	46.0			
960 ~ 1000	3	500	54.0			
Above 1000	3	Other:74.0 dB(µV)/m	Other:74.0 dB(µV)/m (Peak) 54.0 dB(µV)/m (Average)			

Remark

- (1) Emission level dB V = 20 log Emission level V/m
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Page 11 of 35

7.2. MEASUREMENT PROCEDURE

1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.

- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Page 12 of 35

The following table is the setting of spectrum analyzer and receiver.

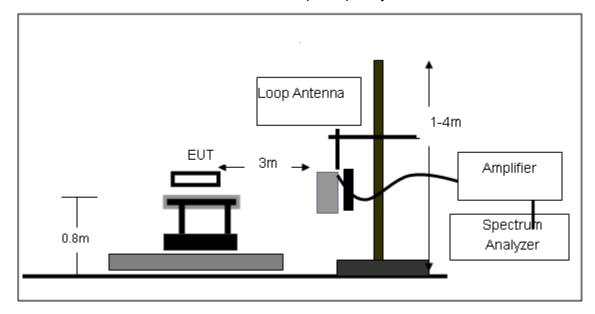
Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 1MHz/1MHz for Peak, 1MHz/10Hz for Average

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

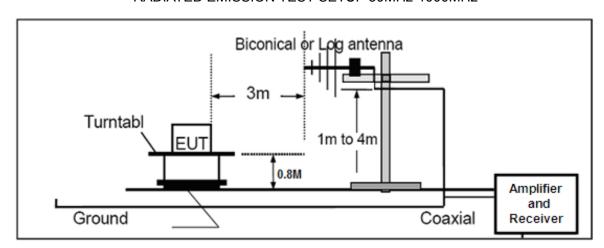
Page 13 of 35

7.3. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz

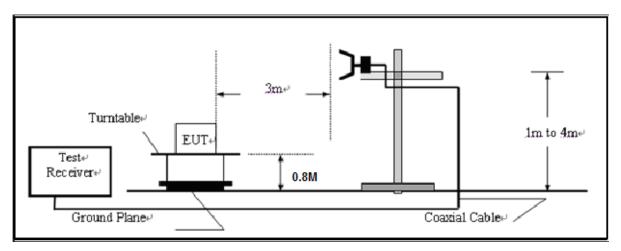


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



Page 14 of 35

RADIATED EMISSION TEST SETUP ABOVE 1000MHz



Report No.: AGC03158150801FE03 Page 15 of 35

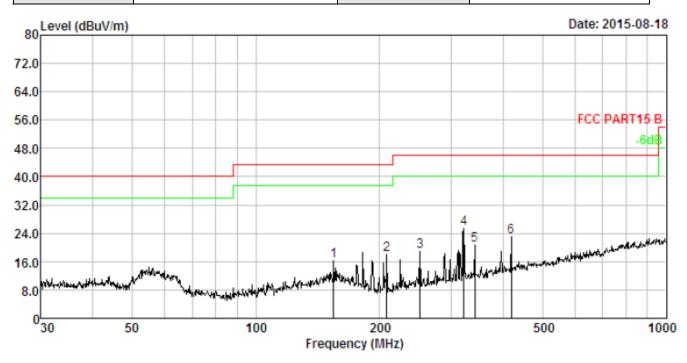
7.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION 30MHz-1GHZ

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Horizontal

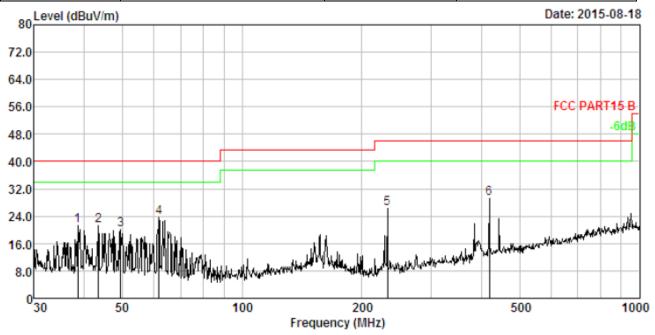


No.	Freq MHz	Cable Loss dB	ANT Factor dB/m	Receiver Reading dBuV	Preamp Factor dB	Emission Level dBuV/m	Limit dBuV/m	Over Limit dB	Remark
1.	154.821	2.54	13.89	30.44	30.54	16.33	43.50	-27.17	Peak
2.	208.580	2.81	10.55	35.31	30.64	18.03	43.50	-25.47	Peak
3.	251.180	2.98	11.95	34.71	30.71	18.93	46.00	-27.07	Peak
4.	321.061	3.20	13.67	39.27	30.79	25.35	46.00	-20.65	Peak
5.	341.979	3.26	14.12	34.22	30.82	20.78	46.00	-25.22	Peak
6.	419.108	3.44	15.68	34.86	30.89	23.09	46.00	-22.91	Peak

RESULT: PASS

Page 16 of 35

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Vertical



No.	Freq MHz	Cable Loss dB	ANT Factor dB/m	Receiver Reading dBuV	Preamp Factor dB	Emission Level dBuV/m	Limit dBuV/m	Over Limit dB	Remark
1.	38.616	1.28	13.60	36.52	30.06	21.34	40.00	-18.66	
2.	43.506	1.39	13.38	36.64	30.10	21.31	40.00	-18.69	Peak
3.	49.533	1.51	12.36	36.26	30.14	19.99	40.00	-20.01	Peak
4.	61.778	1.71	12.05	40.16	30.22	23.70	40.00	-16.30	Peak
5.	232.532	2.91	11.36	42.74	30.68	26.33	46.00	-19.67	Peak
6.	419.108	3.44	15.68	40.91	30.89	29.14	46.00	-16.86	Peak

RESULT: PASS

Note:

Factor=Antenna Factor + Cable loss, Margin=Result-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

The mode 1 is the worst case, and only the data of the worst case recorded in this test report.

Page 17 of 35

RADIATED EMISSION ABOVE 1GHZ

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2409.013	96.73	-9.37	87.36	114	-26.64	peak
2409.013	86.34	-9.37	76.97	94	-17.03	AVG
4818.026	42.56	3.74	46.3	74	-27.7	peak
4818.026	30.34	3.74	34.08	54	-19.92	AVG
7227.039	39.57	8.14	47.71	74	-26.29	peak
7227.039 28.29 8.14 36.43 54 -17.57 AVG						
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type		
2409.013	97.58	-9.37	88.21	114	-25.79	peak		
2409.013	88.06	-9.37	78.69	94	-15.31	AVG		
4818.026	43.38	3.74	47.12	74	-26.88	peak		
4818.026	31.51	3.74	35.25	54	-18.75	AVG		
7227.039	7227.039 40.34 8.14 48.48 74 -25.52 peak							
7227.039	7227.039 29.47 8.14 37.61 54 -16.39 AVG							
Remark:								
Factor = Ante	nna Factor + C	able Loss – Pi	re-amplifier.					

Page 18 of 35

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 2	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2440.016	98.67	-9.63	89.04	114	-24.96	peak
2440.016	88.37	-9.63	78.74	94	-15.26	AVG
4880.032	41.27	3.76	45.03	74	-28.97	peak
4880.032	30.49	3.76	34.25	54	-19.75	AVG
7320.048	40.37	8.17	48.54	74	-25.46	peak
7320.048	30.26	8.17	38.43	54	-15.57	AVG
Remark:						
-actor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 2	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type	
2440.016	99.67	-9.63	90.04	114	-23.96	peak	
2440.016	90.53	-9.63	80.9	94	-13.1	AVG	
4880.032	42.24	3.76	46	74	-28	peak	
4880.032	31.56	3.76	35.32	54	-18.68	AVG	
7320.048	40.64	8.17	48.81	74	-25.19	peak	
7320.048 30.29 8.17 38.46 54 -15.54 AVG							
Remark:							
Factor = Ante	Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Page 19 of 35

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 3	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2476.021	97.62	-9.61	88.01	114	-25.99	peak
2476.021	86.94	-9.61	77.33	94	-16.67	AVG
4952.042	42.67	3.83	46.5	74	-27.5	peak
4952.042	32.27	3.83	36.1	54	-17.9	AVG
7428.063	39.36	8.21	47.57	74	-26.43	peak
7428.063 31.53 8.21 39.74 54 -14.26 AVG						
Remark:						
actor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 3	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2476.021	98.19	-9.61	88.58	114	-25.42	peak
2476.021	87.98	-9.61	78.37	94	-15.63	AVG
4952.042	42.57	3.83	46.4	74	-27.6	peak
4952.042	31.39	3.83	35.22	54	-18.78	AVG
7428.063	40.27	8.21	48.48	74	-25.52	peak
7428.063 32.16 8.21 40.37 54 -13.63 AVG						
Remark:						
Factor = Ante	Factor = Antenna Factor + Cable Loss – Pre-amplifier.					

Note: Other emission from 8G to 25 GHz are considered as ambient noise. No recording in the test report. Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

The spurious emission of mode 4 are considered as ambient noise. No recording in the test report.

Page 20 of 35

8. BAND EDGE EMISSION

8.1. MEASUREMENT PROCEDURE

1The EUT operates at hopping-off test mode. The lowest or highest channels are tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.

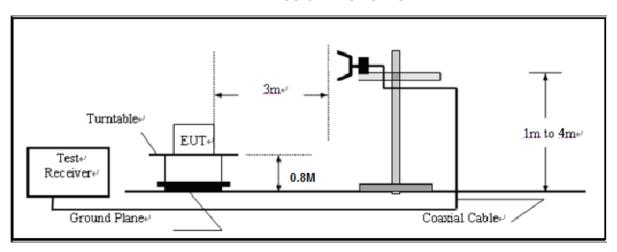
2Max hold the trace of the setp 1,and the EUT operates at hopping-on test mode to verify the largest spurious emissions power.

3Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

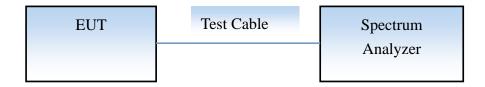
(b) AVERAGE: RBW=1MHz; VBW=1/on time(1KHz) / Sweep=AUTO

8.2 TEST SETUP

RADIATED EMISSION TEST SETUP



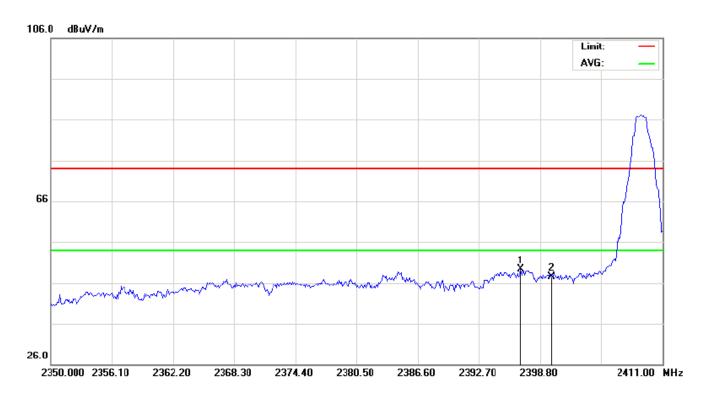
CONDUCTED TEST SETUP



Page 21 of 35

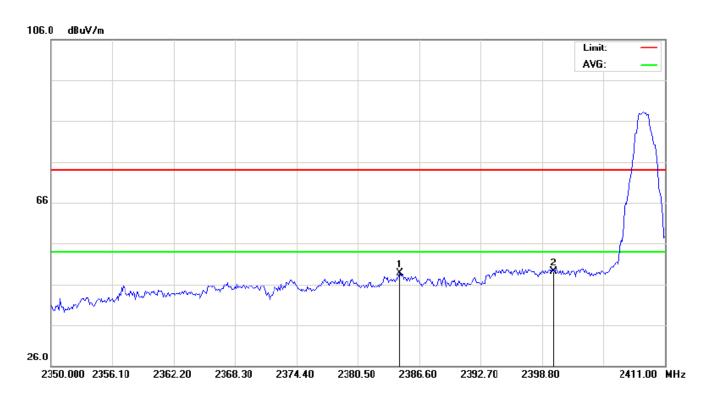
8.3 RADIATED TEST RESULT

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Horizontal



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type	
2396.868	62.48	-13.00	49.48	74	-24.52	peak	
2400.000	60.76	-12.99	47.77	74	-26.23	peak	
Remark:							
Factor = Antenna Factor + Cable Loss – Pre-amplifier.							

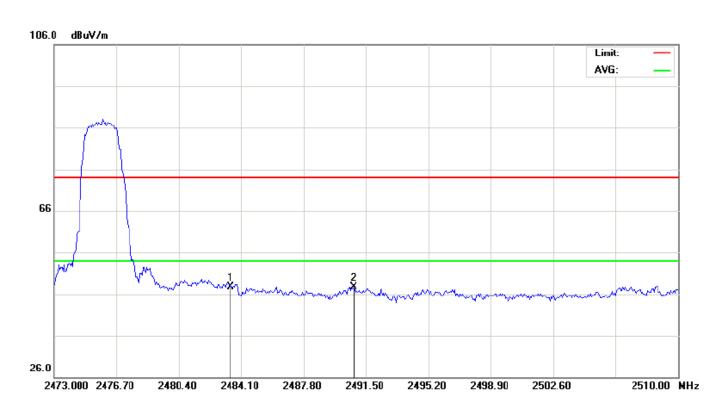
EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 1	Polarization :	Vertical



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2385.437	61.26	-13.00	48.26	74	-25.74	peak
2400.000	62.04	-12.99	49.05	74	-24.95	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Page 23 of 35

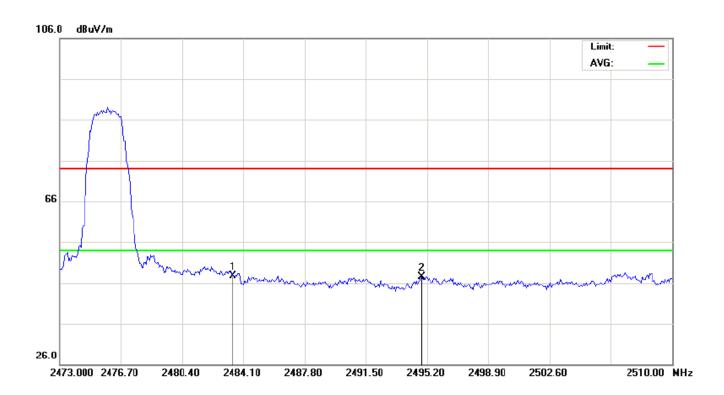
EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 3	Polarization :	Horizontal



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2483.500	60.59	-12.78	47.81	74	-26.19	peak
2484.600	60.64	-12.77	47.87	74	-26.13	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Page 24 of 35

EUT	2.4GHz Wireless Mouse	Model Name.	OM4750W
Temperature	20	Relative Humidtity	48%
Pressure	1010 hPa	Test Voltage	DC3V
Test Mode	Mode 3	Polarization :	Vertical



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
2483.500	60.97	-12.78	48.19	74	-25.81	peak
2483.600	60.89	-12.77	48.12	74	-25.88	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note:

Factor=Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

The PK emission level are less than AV limit so the AV emission level are not recorded.

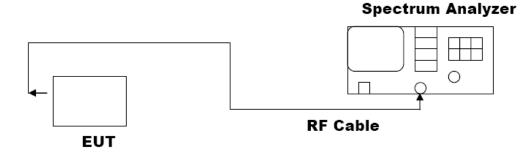
Page 25 of 35

9. 20DB BANDWIDTH

9.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW 3 RBW.
- 4. Set SPA Trace 1 Max hold, then View.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



9.3. MEASUREMENT RESULTS

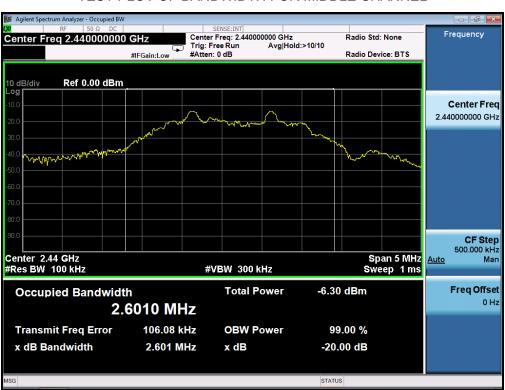
TEST ITEM	20DB BANDWIDTH
TEST MODE	Mode1;Mode2;Mode3

Test Data (MHz)	Criteria	
Low Channel	2.683	PASS
Middle Channel	2.601	PASS
High Channel	2.518	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

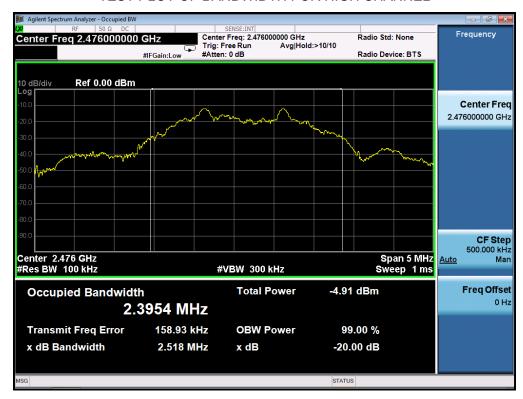


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



Page 27 of 35

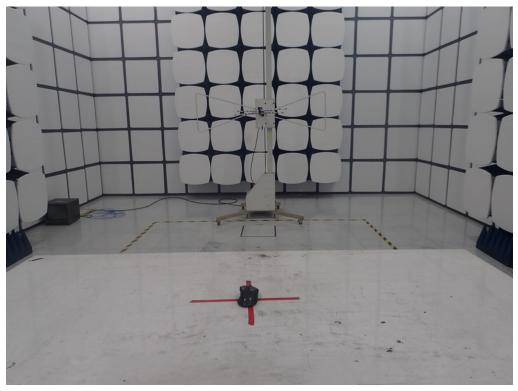
TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



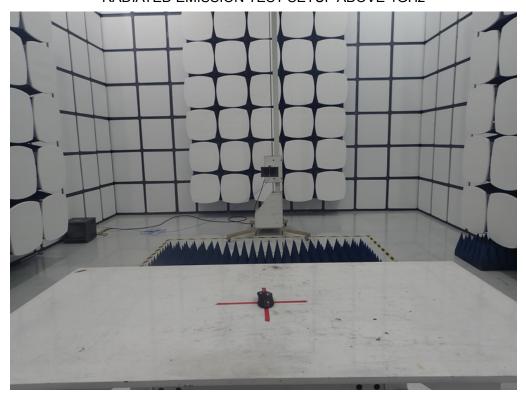
Page 28 of 35

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

RADIATED EMISSION TEST SETUP BELOW 1GHz



RADIATED EMISSION TEST SETUP ABOVE 1GHz



Page 29 of 35

APPENDIX B: PHOTOGRAPHS OF EUT

TOP VIEW OF EUT



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



LEFT VIEW OF EUT



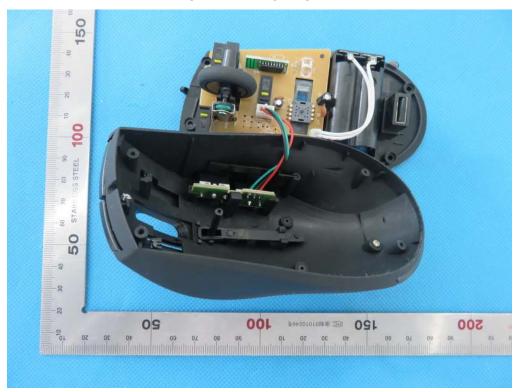
RIGHT VIEW OF EUT



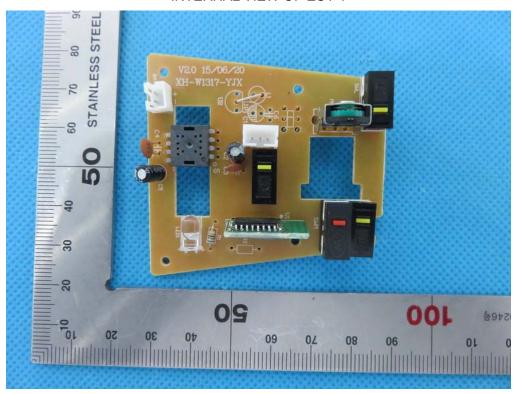
OPEN VIEW OF EUT-1



OPEN VIEW OF EUT-2

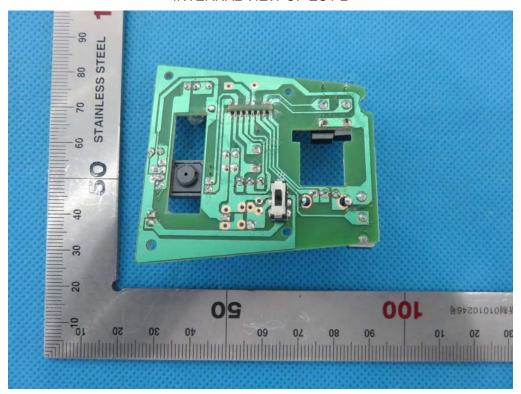


INTERNAL VIEW OF EUT-1

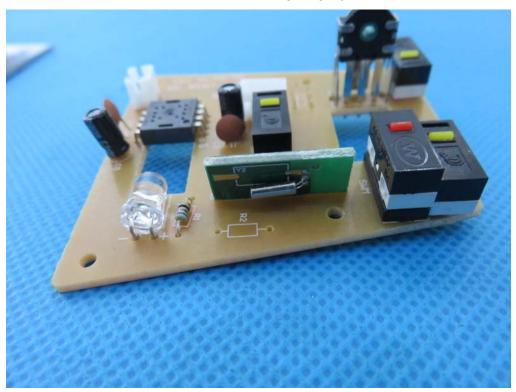


Page 34 of 35

INTERNAL VIEW OF EUT-2

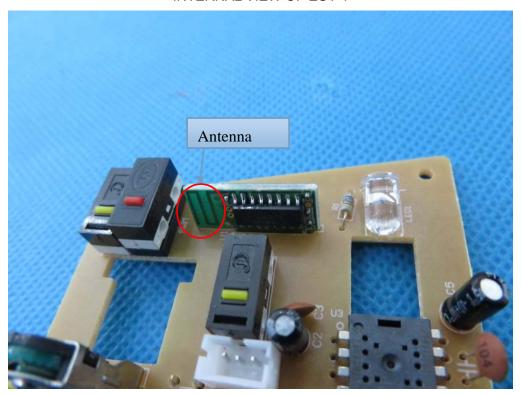


INTERNAL VIEW OF EUT-3



Page 35 of 35

INTERNAL VIEW OF EUT-4



----END OF REPORT----