

TEST REPORT

Reference No. : WTS17S0477106-2E
FCC ID..... : YI8V88
Applicant..... : OMEGA TECHNOLOGY INC.
Address : 6F, NO. 87, Sec. 3, Chung-Yang Rd., Tu-Cheng Dist, New Taipei City,
Taiwan
Manufacturer..... : The same as above
Address : The same as above
Product Name : Wireless Ergonomic Optical Mouse
Model No. : V88
Standards..... : FCC CFR Title 47 Chapter I Subchapter A Part 2 Subpart J Section 2.1093
447498 D01 General RF Exposure Guidance v06
Date of Receipt sample..... : Apr. 21, 2017
Date of Test..... : Apr. 21 – Apr. 28, 2017
Date of Issue : May. 05, 2017
Test Result : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.
The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Services (Shenzhen) Co., Ltd.

Address: 1/F., Fukangtai Building, West Baima Road, Songgang Street, Baoan District, Shenzhen,
Guangdong, China

Tel :+86-755-83551033

Fax:+86-755-83552400

Compiled by:

Robin Zhou

Robin Zhou / Test Engineer

Approved by:



Philo Zhou

Philo Zhou / Manager

2 Contents

	Page
1 COVER PAGE.....	1
2 CONTENTS	2
3 REVISION HISTORY	3
4 GENERAL INFORMATION	4
4.1 GENERAL DESCRIPTION OF E.U.T.	4
4.2 DETAILS OF E.U.T.	4
4.3 CHANNEL LIST.....	4
4.4 TEST FACILITY.....	5
5 EQUIPMENT USED DURING TEST.....	6
5.1 EQUIPMENTS LIST	6
5.2 MEASUREMENT UNCERTAINTY	6
5.3 TEST EQUIPMENT CALIBRATION	7
6 SAR EVALUATION	8
6.1 REQUIREMENTS.....	8
6.2 THE PROCEDURES / LIMIT.....	8
6.3 RESULT: COMPLIANCE	8

3 **Revision History**

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTS17S0477106-2E	Apr. 21, 2017	Apr. 21– Apr. 28, 2017	May. 05, 2017	original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product Name	: Wireless Ergonomic Optical Mouse
Model No.	: V88
Model Differences	:N/A
Type of Modulation	:GFSK
Frequency Range	:2402MHz-2480MHz, 40 Channels in total
The Lowest Oscillator	:16MHz
Antenna installation	:PCB Printed Antenna

4.2 Details of E.U.T.

Technical Data	: DC 3.7V, 300mAh by battery; Charging: DC 5V by USB from PC
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4.3 Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2402	11	2422	21	2442	31	2462
2	2404	12	2424	22	2444	32	2464
3	2406	13	2426	23	2446	33	2466
4	2408	14	2428	24	2448	34	2468
5	2410	15	2430	25	2450	35	2470
6	2412	16	2432	26	2452	36	2472
7	2414	17	2434	27	2454	37	2474
8	2416	18	2436	28	2456	38	2476
9	2418	19	2438	29	2458	39	2478
10	2420	20	2440	30	2460	40	2480

4.4 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A-1, October 15, 2015.

- **FCC Test Site – Registration No.: 328995**

Waltek Services(Shenzhen) Co., Ltd. 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 328995, December 3, 2014.

5 Equipment Used during Test

5.1 Equipments List

3m Semi-anechoic Chamber for Radiation						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Spectrum Analyzer	R&S	FSP	100091	Apr. 07, 2017	Apr. 06, 2018
2	Amplifier	Agilent	8447D	2944A10178	Jan. 12, 2017	Jan. 11, 2018
3	Active Loop Antenna	Beijing Dazhi	ZN30900A	0703	Oct. 17, 2016	Oct. 16, 2017
4	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	Apr. 07, 2017	Apr. 06, 2018
5	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	Sep.12, 2016	Sep.11, 2017
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	Apr. 07, 2017	Apr. 06, 2018
7	SHF-EHF Horn, 15-40GHz	SCHWARZBECK	BBHA 9170	BBHA9170582	Aug. 13, 2016	Aug. 12, 2017
8	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	Apr. 07, 2017	Apr. 06, 2018
9	Broadband Preamplifier	SCHWARZBECK	BBV 9719	18-26.5GHz	Aug. 13, 2016	Aug. 12, 2017
10	Coaxial Cable (above 1GHz)	Top	1GHz-26.5GHz	EW02014-7	Apr. 07, 2017	Apr. 06, 2018
3m Semi-anechoic Chamber for Radiation						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	Apr. 07, 2017	Apr. 06, 2018
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Apr. 07, 2017	Apr. 06, 2018
3	Amplifier	ANRITSU	MH648A	M43381	Apr. 07, 2017	Apr. 06, 2018
4	Cable	HUBER+SUHNER	CBL2	525178	Apr. 07, 2017	Apr. 06, 2018

5.2 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-6}$
RF Power	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (30M~1000MHz)
	± 5.47 dB (1000M~25000MHz)
Conducted Spurious Emissions test	± 3.64 dB (AC mains 150KHz~30MHz)

5.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

6 SAR Evaluation

Test Requirement: FCC CFR Title 47 Chapter I Subchapter A Part 2 Subpart J Section 2.1093

Evaluation Method: 447498 D01 General RF Exposure Guidance v06

6.1 Requirements

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz
2. Power and distance are rounded to the nearest mW and mm before calculation
3. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

6.2 The procedures / limit

Source-based time-averaged maximum output power(dBm)	Source-based time-averaged maximum output power(mW)	Minimum test separation distance required for the exposure conditions(mm)	SAR Test Exclusion Thresholds(mW)	Evaluation Result
-10.37	0.0918	5	9.525	Compliance

Note: the following is Source-based time-averaged maximum output power Calculation

Frequency	Source-based time-averaged maximum output power	Substituted (0dBm)	Source-based time-averaged maximum output power
(MHz)	(dB μ V/m)	(dB μ V/m)	(dBm)
2402	84.83	95.20	-10.37

(Note: Substituted= $| 20\log(\text{demise}) - 104.7 |$

Where dMeas is the measurement distance, in m)

6.3 Result: Compliance

No SAR measurement is required.

=====End of Report=====