Certificate # 2861.01

Test Report

Verified code: 028674

Report No.: E202405222827-3

Customer:	Wet Sounds Inc.
Address:	2975 Louise Street, ST Rosenberg, TX 77471
Sample Name:	MAL M-LINK
Sample Model:	MAL M-LINK
Receive Sample Date:	May.27,2024
Test Date:	May.31,2024 ~ Jun.13,2024
Reference Document:	CFR 47, FCC Part 2.1091 Radio frequency radiation exposure evaluation: mobile devices.
Test Result:	Pass

Prepared by: Wen Wenwen Reviewed by: Wu Haoting Approved by: Xiao Liang

GRG METROLOGY & TEST GROUP CO., LTD

Issued Date: 2024-07-29

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Statement

1. The report is invalid without "special seal for inspection and testing"; some copies are invalid; The report is invalid if it is altered or missing; The report is invalid without the signature of the person who prepared, reviewed and approved it.

2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.

3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.

4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.

5. This testing report is only for scientific research, teaching, internal quality control, etc.

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TABLE OF CONTENTS

1. GENERAL DESCRIPTION OF EUT 5
1.1. APPLICANT 5
1.2. MANUFACTURER 5
1.3. FACTORY 5
1.4. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST 5
2. LABORATORY AND ACCREDITATIONS 6
2.1. LABORATORY 6
2.2. ACCREDITATIONS 6
3. LIMITS FOR GENERAL POPULATION/UNCONTROLLEDEXPOSURE 7
4. CALCULATION METHOD 8
5. ESTIMATION RESULT 9
5.1 MEASUREMENT RESULTS 9
6. CONCLUSION 9

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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E202405222827-3	Original Issue	2024-06-17

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1. GENERAL DESCRIPTION OF EUT

1.1. APPLICANT

Name:	Wet Sounds Inc.
Address:	2975 Louise Street, ST Rosenberg, TX 77471

1.2. MANUFACTURER

Name:	Wet Sounds Inc.
Address:	2975 Louise Street, ST Rosenberg, TX 77471

1.3. Factory

Name:	Dongguan Longjoin Electronics Co. Ltd.
Address:	Industrial road No.10,Shuilang Village, Dalingshan Town, Dongguan City, Guangdong Province, PRC

1.4. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment:	MAL M-LINK
Model No.:	MAL M-LINK
Adding Model:	/
Trade Name:	WET SOUNDS
FCC ID:	2AT9N-MALM-LINK
Power Supply:	DC 12V
Frequency Range:	2403.58MHz - 2477.31MHz
Maximum conducted output Power:	16.91dBm
Type of Modulation:	FSK
Antenna Specification:	PCB printed antenna: with maximum 2.30dBi gain
Temperature Range:	-20℃~+80℃
Hardware Version:	A0850
Software Version:	v2.7.0 -580
Sample No:	E202405222827-0001, E202405222827-0002
Note:	The basic description of the EUT is provided by the applicant. This report is made Solely yon the basis of such data and/or information.We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

2. LABORATORY AND ACCREDITATIONS

2.1. LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

Add	:	Address: No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China
P.C.	:	518110
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2.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	A2LA(Certificate #2861.01)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	ISED (Company Number: 24897，CAB identifier:CN0069)
USA	FCC (Registration Number: 759402，Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site, http://www.grgtest.com

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3. LIMITS FOR GENERAL POPULATION/UNCONTROLLEDEXPOSURE

General

According to the KDB 447498 D04 Interim General RF Exposure Guidance v01,General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table 4.1 to support an exemption from further evaluation from 300 kHz through 100 GHz.

TABLE 4.1—THRESHOLDS FOR SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

RF Source Frequency			**Minimum Distance**			**Threshold ERP**
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	1,920 R^2
1.34	–	30	35.6 m	–	1.6 m	3,450 R^2/f^2
30	–	300	1.6 m	–	159 mm	3.83 R^2
300	–	1,500	159 mm	–	31.8 mm	0.0128 R^2f
1,500	–	100,000	31.8 mm	–	0.5 mm	19.2R^2
Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.						

For mobile devices that are not exempt per Table 4.1 at distances from 20 cm to 40 cm and in 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in §1.1310 is necessary if the ERP of the device is greater than ERP_{20cm} in Formula (4.1).

Formula (4.1):

$$P_{th}\ (\text{mW}) = ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

4. CALCULATION METHOD

Predication of MPE limit at a given distance

EIRP(dBm)=Maximum Tune-up Output power (dBm)+Maximum antenna gain(dBi)

ERP(dBm)=EIRP(dBm)-2.15

R=minimum distance to the center of radiation of the antenna

From the EUT RF output power, the minimum mobile separation distance, d=20cm, as well as the maximum gain of the used as following information, the RF power ERP can be obtained.

Table 1 Antenna Specification

Antenna type	Internal Identification	Maximum antenna gain
PCB printed antenna	Antenna 1	2.30dBi

Table 2 Transmit Power

Frequency(MHz)	Maximum Conducted peak Output Power (dBm)	Target (dBm)	Tolerance ±(dB)
2403.58	16.78	16.0	1.0
2440.45	16.91	16.0	1.0
2477.31	12.05	12.0	1.0

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5. ESTIMATION RESULT

5.1 MEASUREMENT RESULTS

STANDALONE MPE

Frequency (MHz)	Maximum Tune-up conducted Output power (dBm)	Antenna Gain (dBi)	Maximum Tune-up EIRP (dBm)	ERP (dBm)	Maximum Tune-up ERP (W)	Threshold ERP(W)
2403.58 - 2477.31	17.0	2.30	19.30	17.15	0.052	0.768

Remark:

1. RF Exposure use distance is 20cm from manufacturer declaration of user manual.
2. Threshold ERP(W)= 19.2R ²(W)=19.2*0.2*0.2(W)=0.768(W).
3. ERP(dBm)=EIRP(dBm)-2.15.

6. CONCLUSION

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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