

RF Exposure Evaluation
For
Zhuhai Tessian Power Technology Co.,Ltd.
Water Timer
Test Model: WG05

Prepared for : Zhuhai Tessian Power Technology Co.,Ltd.
Address : Building 14, Xiangzhou Chuanggang Center, No.199, Weikang Road,
Xiangzhou District, Zhuhai, Guangdong Province, China

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Date of receipt of test sample : October 10, 2026
Number of tested samples : 2
Sample No. : C261009004-1, C261009004-2
Serial number : Prototype
Date of Test : October 10, 2026 ~ October 19, 2026
Date of Report : October 20, 2026

RF Exposure Evaluation	
Report Reference No.	LCSC10086011EC
Date of Issue	October 20, 2026
Testing Laboratory Name	Guangzhou LCS Compliance Testing Laboratory Ltd.
Address	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Testing Location/ Procedure	Full application of Harmonised standards ☒ Partial application of Harmonised standards ☐ Other standard testing method ☐
Applicant's Name	Zhuhai Tessan Power Technology Co.,Ltd.
Address	Building 14, Xiangzhou Chuanggang Center, No.199, Weikang Road, Xiangzhou District, Zhuhai, Guangdong Province, China
Test Specification	
Standard	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
TRF Originator	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description.	Water Timer
Trade Mark	DIIVOO
Test Model	WG05
Ratings	Please Refer to Page 6
Result	Pass

Compiled by:



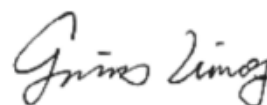
Lifeng Le / Administrator

Supervised by:



Justin Zhu/ Technique Director

Approved by:



Gavin Liang/ Manager

RF Exposure Evaluation

Test Report No. : LCSC10086011EC	<u>October 20, 2026</u> Date of issue
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Test Model.....	: WG05
EUT.....	: Water Timer
Applicant.....	: Zhuhai Tessan Power Technology Co.,Ltd.
Address.....	: Building 14, Xiangzhou Chuanggang Center, No.199, Weikang Road, Xiangzhou District, Zhuhai, Guangdong Province, China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Zhuhai Tessan Power Technology Co.,Ltd.
Address.....	: Building 14, Xiangzhou Chuanggang Center, No.199, Weikang Road, Xiangzhou District, Zhuhai, Guangdong Province, China
Telephone.....	: /
Fax.....	: /
Factory.....	: FUJIAN BALDR TECHNOLOGY CO.,LTD
Address.....	: No.118 Yongnan Road, Chengmen Town, Cangshan District, Fuzhou, 350007 Fujian, P.R. China
Telephone.....	: /
Fax.....	: /

Test Result	Pass
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	October 20, 2026	Initial Issue	---

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1. Product Information

EUT	: Water Timer
Test Model	: WG05
Ratings	: Input: DC 5V, 1A
Hardware Version	: /
Software Version	: /
433MHz Operation frequency	: 433.92MHz
Channel Number	: 1
Modulation Type	: FSK
Antenna Description	: External Antenna, 2.0dBi(Max.)
WIFI(2.4G Band)	
Frequency Range	: 2412MHz-2462MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Channel Spacing	: 5MHz
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Internal Antenna, 3.42dBi(Max.)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Device

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0 – 30	614	1.63	(100) *	6
30 – 300	1842/f	4.89/f	(900/f ²)*	6
300 – 1500	61.4	0.163	1.0	6
1500 – 100,000	/	/	f/300	6
	/	/	5	6
Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Uncontrolled Exposure				
0.3 – 3.0 – 30	614	1.63	(100) *	30
30 – 300	824/f	2.19/f	(180/f ²)*	30
300 – 1500	27.5	0.073	0.2	30
1500 – 100,000	/	/	f/1500	30
	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

4. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. Antenna Information

EUT can only use antennas certificated as follows provided by manufacturer;

Internal/ External Identification	Antenna type and antenna number	Operate frequency band	Maximum antenna gain	Notes
Internal Antenna	Internal Antenna	2400MHz ~ 2500MHz	3.42dBi	WIFI Antenna
	External Antenna	433.92MHz	2.0dBi	433.92 Antenna

6. Conducted Power

[2.4G WIFI]			
Mode	Channel	Frequency (MHz)	Max Conducted Output Power (dBm)
IEEE 802.11b	1	2412	11.2
	6	2437	11.51
	11	2462	11.41
IEEE 802.11g	1	2412	11.24
	6	2437	11.66
	11	2462	11.46
IEEE 802.11n HT20	1	2412	11.26
	6	2437	11.48
	11	2462	11.26
IEEE 802.11n HT40	3	2422	12.97
	6	2437	13.21
	9	2452	12.91

Test Procedure

TX frequency range: 433.92MHz(Worst result)

Device category: Mobile Device (Distance: 20cm)

Max. Field Strength: 78.79dBuV/m @3m

EIRP=E-104.7+20logD=78.79-104.7+20log(3/0.2)=-16.47dBm

Maximum Conducted Output Power: -18.47dBm

Tune-up: -18±1

7. Manufacturing Tolerance

[2.4G WIFI]			
IEEE 802.11b (AVG)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g (AVG)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (AVG)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40(AVG)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	13.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

8. Measurement Results

8.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[2.4G WIFI]						
Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	12.0	15.8489	3.42	2.1979	0.0069	1.0000
IEEE 802.11g	12.0	15.8489	3.42	2.1979	0.0069	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.42	2.1979	0.0069	1.0000
IEEE 802.11n HT40	14.0	25.1189	3.42	2.1979	0.0110	1.0000

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
FSK	-17.0	0.0200	2	1.5849	0.000006	0.28928

Remark:

1. Output power including tune-up tolerance;
2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.

8.2 Simultaneous Transmission MPE Evaluation

433.92MHz Max MPE ratios ¹	2.4GWIFI Max MPE ratios ²	Σ MPE ratios	Limit	Results
0.00002	0.0110	0.01102	1.000	Pass

9. Conclusion

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

10. Description of Test Facility

CNAS Registration Number is L11555
A2LA Certificate Number: 5099.01
FCC Designation Number is CN1379
Test Firm Registration Number: 729882

11. Measurement Uncertainty

433.92/2.4GWIFI:

Test Item		Frequency Range	Uncertainty	Note
Radiation Uncertainty	:	9KHz~30MHz	±3.10dB	(1)
		30MHz~200MHz	±2.96dB	(1)
		200MHz~1000MHz	±3.10dB	(1)
		1GHz~26.5GHz	±3.80dB	(1)
		26.5GHz~40GHz	±3.90dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	±1.63dB	(1)
Power disturbance	:	30MHz~300MHz	±1.60dB	(1)
Output power	:	1GHz-40GHz	±0.57dB	(1)
Occupied Channel Bandwidth	:	1GHz-40GHz	±5%	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

-----THE END OF REPORT-----